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## United States Court of Appeals for the Federal Circuit

05-1173, -1216

SUN COAST MERCHANDISE CORP.  
and DILIP BHAVNANI,

Plaintiffs-Cross Appellants,

v.

CCL PRODUCTS ENTERPRISES, INC.,  
CCL CREATIVE LTD., CCL PRODUCTS, LTD.,  
and C.C.&L COMPANY LTD.,

Defendants-Appellants.

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DECIDED: April 21, 2006

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Before MICHEL, Chief Judge, LINN, and PROST, Circuit Judges.

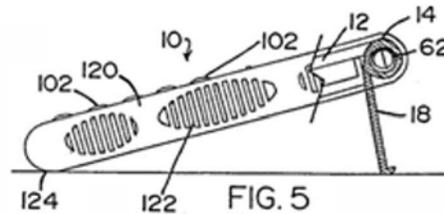
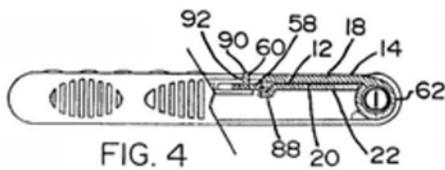
PROST, Circuit Judge.

CCL Products Enterprises, Inc., CCL Creative Ltd., CCL Products, Ltd., and C.C.&L Co. Ltd. (collectively, "CCL") appeal from a decision of the United States District Court for the Central District of California granting summary judgment of non-infringement of U.S. Patent No. 6,178,085 (the "085 patent") in favor of Sun Coast Merchandise Corp. and Dilip Bhavnani (collectively, "Sun Coast"). Sun Coast Merch. Corp. v. CCL Prods. Enters., Inc., No. SA CV 03-0991 (C.D. Cal. Nov. 22, 2004). Sun

Coast cross-appeals the district court's denial of its motion for attorney fees. Sun Coast Merch. Corp. v. CCL Prods. Enters., Inc., No. SA CV 03-0991 (C.D. Cal. Jan. 12, 2005) ("Attorney Fees Order"). Because we have clarified the construction of "trunnions" and "damping means," and several issues remain to be addressed by the district court, we vacate the summary judgment findings with respect to literal infringement of two of Sun Coast's calculator designs and remand for the district court to determine whether those two designs literally infringe the asserted claims of the '085 patent. Additionally, we affirm the district court's summary judgment finding of noninfringement with respect to Sun Coast's third calculator design, the court's finding of noninfringement under the doctrine of equivalents with respect to all of the calculator designs at issue, and the court's denial of attorney fees.

## I. BACKGROUND

CCL's '085 patent discloses a calculator which generally contains a housing and a "lid mechanism which pivots a flat cover of the calculator in a predetermined controlled manner between a first position[.]" in which the cover forms a lid overlying the display, and a second position in which the cover is "pivoted towards the rear of the calculator so as to form a stand for tilting the calculator into an upwardly inclined ergonomic position . . . ." '085 patent, Abstract. The '085 patent specification discloses that one object of the invention is to provide a novel calculator lid mechanism that has been adapted "for controlled pivoting actuation to alternatively form a cover for a display panel and a stand for the calculator." Id. at col. 2, ll. 61-65. Figures 4 and 5 show both positions of the lid mechanism, as a cover and alternatively, a stand.



After being accused by CCL of infringing the '085 patent, Sun Coast filed a declaratory judgment action that the '085 patent was invalid and/or not infringed by its accused calculators. In response, CCL filed a counterclaim for infringement of claims 1, 2, 7, 8, and 9 of the '085 patent.

Claim 1, the only independent claim asserted, is representative of the claims at issue:

1. A portable hand-held calculator, comprising:
  - (a) a generally flat rectangular housing containing operating electronics and an array of calculator actuating buttons; a display panel being located on a front surface of said housing proximate said array of actuator buttons; said housing including a pair of flanges extending from opposite side edges of said housing in parallel spaced relationship; and hinge-forming trunnions being formed on inwardly facing surfaces of said flanges;
  - (b) a lid structure connected to said trunnions for pivotal motion relative to said housing, said lid structure including a flat cover portion and a tubular portion formed along one edge of said flat cover portion extending between said trunnions, said tubular portion including cylindrical bores extending along the longitudinal axis thereof; and
  - (c) a lid operating mechanism including damping means arranged within at least one said cylindrical bore, biasing said lid toward a rearwardly pivoted position, and effectuating a controlled pivotal motion of said lid structure between the closed position thereof covering said display panel and the rearwardly pivoted position exposing said display panel and forming a stand for supporting said calculator in a tilted position on a horizontal surface.

Id. at col. 7, ll. 2-27 (emphases added).

In its Markman opinion, the district court construed the term “trunnions” as “pin[s] or pivot[s] usually mounted on bearings for rotating or tilting something.” Sun Coast Merch. Corp. v. CCL Prods. Enters., Inc., No. CV 01-0772, slip op. at 12-13 (C.D. Cal.

May 1, 2003) (“Markman Opinion”). Based on the context of the claim language and the disclosures in the specification, however, the court limited “trunnions” to those “that project from the inwardly facing surface of the flanges.” Id. at 13.

Sun Coast markets several different models of accused calculators. The district court separated the accused calculators according to their design into three general categories. We continue the district court’s practice of referring to the accused devices in the following manner:

- (1) “original design:” including models RC2500 and original RC3000
- (2) “modified design:” including models RC2600, RC2500M, RC2700, and modified RC3000
- (3) “double flipper” or the CALC-0050 model

See, e.g., Sun Coast Merch. Corp. v. CCL Prods. Enters., Inc., No. SA CV 03-0991, slip op. at 2 n.2 (C.D. Cal. Oct. 28, 2004) (“Summary Judgment Order”).

In its opinion granting Sun Coast’s motion for summary judgment of non-infringement, the district court found that CCL did not provide any admissible evidence of infringement in response to Sun Coast’s motion. The “evidence” proffered consisted of: “(1) unauthenticated photographs that purport to compare the Sun Coast products to the CCL products; and (2) unauthenticated computer generated drawings of Sun Coast’s products.” Id. at 7. Thus, the district court concluded that “[h]aving submitted only these questionable exhibits with mere conclusory argument, CCL has provided no evidence to support its position of infringement. . . . CCL’s unsupported statements are wholly insufficient to raise a genuine evidentiary dispute requiring the case to go before a jury.” Id. The district court found that CCL failed to go beyond the pleadings and provide the court with evidence of either literal infringement or “evidence of the equivalency of Sun Coast’s products and the limitations in claim 1.” Id. at 8, n.5. That

failure was sufficient for the district court to find that CCL's lack of proof entitled Sun Coast to summary judgment of non-infringement on both literal infringement and infringement under the doctrine of equivalents. Id.

The district court, however, subsequently made clear that its grant of summary judgment was not based solely on CCL's failure to present evidence of infringement, but also on its own observations of the accused devices which the court apparently disassembled on its own accord: "the Court's examination of the products at issue, coupled with CCL's failure to provide evidence to the contrary, leads to the conclusion that all elements contained in claim 1 of the '085 Patent are not present in the Sun Coast products." Id. at 9. The district court then proceeded to examine the disassembled accused products and make findings of fact regarding whether each of the three categories of accused products literally infringe.

Specifically, the district court's analysis of infringement consisted of a single paragraph for each design type, as reproduced here:

The original design does not embody every limitation of claim 1. The calculators do not have projections on the inner surface of both sides of the housing about which the lid rotates. In other words, the RC2500 and RC3000 do not have flanges with hinge forming trunnions (pins or pivots) that are distinct components. Rather, the lid is attached and rotational movement about the housing is permitted by an outwardly extended attachment means on the lid structure. The support portion in the RC2500 and RC3000 rotate about an integral bore and include extensions that are fitted into the housing. Also, the RC2500 and RC3000 only appear to have a single flange with an inwardly facing structural element.

...

The modified design does not have flanges with hinge-forming trunnions as required by claim 1(a); instead there are protruding extensions on each end of the covering portion's cylindrical barrel that insert into recesses in the housing body. In addition to differences in composition, the Court notes differences between the lid operating mechanism of the '085 Patent and the modified design. The modified design does not have the damping means arranged within one of the

cylindrical bores of the lid structure. Rather, the damping means is primarily located within the housing.

...

Claim 1 requires the lid structure to cover the display panel in the closed position. Because there are two closing layers in the double flipper, the lid structure does not cover the display panel in the closed position, nor does it expose the display panel when opened. Instead, when the lid structure covering the display is opened, the second portion of the housing covers the display panel (this second portion of the housing then opens). Overall, the double flipper opens in a different configuration than that described by the '085 Patent. Moreover, the double flipper's components are similar to the modified calculator and non-infringing for the same reasons noted above.

Id. at 10-11.

In its opinion denying Sun Coast's motion for attorney fees, the district court found that the case was not "exceptional" because Sun Coast had not established by "convincing clarity the egregiousness of CCL's counsel's conduct or a bad faith and vexatious multiplication of proceedings." Attorney Fees Order, slip op. at 2. Additionally, the court denied sanctions in the form of attorney fees under 28 U.S.C. § 927 for essentially the same reasons, finding that "CCL's counsel did not multiply proceedings unreasonably and vexatiously." Id. at 2-3. Lastly, the court declined to utilize its inherent powers to sanction CCL or its counsel because they did not act "in bad faith, vexatiously, wantonly, or for oppressive reasons. . . . [even though,] the court . . . may not have appreciated the zeal or decorum with which CCL and its counsel litigated this matter . . . ." Id. at 3.

CCL appeals the grant of summary judgment of noninfringement. Sun Coast cross-appeals the denial of attorney fees. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

## II. DISCUSSION

## A. Standard of Review

We review a district court's grant of summary judgment de novo, reapplying the standard applicable at the district court. Rodime PLC v. Seagate Tech., Inc., 174 F.3d 1294, 1301 (Fed. Cir. 1999). Summary judgment is appropriate when it has been shown "that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c); Contract Mgmt., Inc. v. Rumsfeld, 434 F.3d 1145, 1146 (9th Cir. 2006).

Determining infringement generally requires two steps. "First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." Carroll Touch, Inc. v. Electro Mech. Sys., Inc., 15 F.3d 1573, 1576 (Fed. Cir. 1993).

Claim construction is an issue of law that we review de novo. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc); Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). "When interpreting claims, we inquire into how a person of ordinary skill in the art would have understood claim terms at the time of the invention." Pfizer, Inc. v. Teva Pharms., USA, Inc., 429 F.3d 1364, 1372-73 (Fed. Cir. 2005) (citing Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)). "The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation." Phillips, 415 F.3d at 1313. "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Id.

Infringement, whether literal or under the doctrine of equivalents, is a question of fact. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353 (Fed. Cir. 1998). The proper inquiry is whether the evidence is such that a reasonable jury could return a verdict for the non-movant. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 252 (1986). We must draw all justifiable inferences in favor of the non-movant. Id.

A court may award attorney fees to a party in “exceptional” cases pursuant to 35 U.S.C. § 285. A trial court undertakes a two-step inquiry to adjudicate a request for attorney fees: the court examines whether there is clear and convincing evidence that the case is exceptional; and if so, whether an award of attorney fees to the prevailing party is warranted. Evident Corp. v. Church & Dwight Co., Inc., 399 F.3d 1310, 1315 (Fed. Cir. 2005) (citing Cybor, 138 F.3d at 1460; J.P. Stevens Co. v. Lex Tex Ltd., 822 F.2d 1047, 1050 (Fed. Cir. 1987)). Whether a case is exceptional depends on findings of fact by the trial court, which we review for clear error. Rolls-Royce, Ltd. v. GTE Valeron Corp., 800 F.2d 1101, 1111 (Fed. Cir. 1986). Pursuant to 35 U.S.C. § 285, the decision to award attorney fees is committed to the discretion of the trial court, which we review for an abuse of discretion. Evident Corp., 399 F.3d at 1315 (citing Molins PLC v. Textron, Inc., 48 F.3d 1172, 1178 (Fed. Cir. 1995)).

## B. Analysis

### 1. Claim Construction

a. “trunnions”

In construing the term “trunnions” in claim 1 of the ’085 patent, the district court noted that the parties did not dispute the single word “trunnion,” but rather the context in which the term is used in the claim. The district court, relying on a dictionary definition of trunnions, construed the term to mean “pins or pivots usually mounted on bearings for rotating or tilting something.” Markman Opinion, slip op. at 13. Reading the claim term in the context of the surrounding claim language, “hinge-forming trunnions being formed on inwardly facing surfaces of said flanges[,]” the court found that because the claim requires that the trunnions be formed “on” the inwardly facing surfaces of the flanges, they must project from the inwardly facing surface of the flanges. The court recognized that several portions of the ’085 patent specification, including the “Summary of the Invention” and “Detailed Description of a Preferred Embodiment” sections, refer to the trunnions “as types of projections[,]” thereby reinforcing the conclusion that some type of projection is required. In reaching its construction, the court rejected CCL’s argument that the term “trunnion” as used in the claim could be construed to cover a pure recess or indentation in the surface of the flange because “[w]hile such recess might be a trunnion, it would be one that is formed in, not on, the inwardly facing surface of the flanges.” Id. Therefore, the court concluded that “the trunnions identified in the claim language are ones that project from the inwardly facing surface of the flanges.” Id.

On appeal, CCL argues that the district court erred in construing “trunnions” as being limited to “projecting” trunnions. Specifically, CCL contends that the court grafted a limitation from the preferred embodiment onto the trunnion term; that limitation being

some type of projection. CCL asserts that the claim language “on inwardly facing surfaces of said flanges,” “simply defines the location of the trunnions ‘on the flange.’” Alternatively, CCL asserts that if the trunnion term were limited to a projection, there is no reason to further limit it to a structure that does not contain a recess, especially when such a construction would exclude the preferred embodiment.

Sun Coast, on the other hand, argues that the district court correctly construed the term “trunnion” as requiring some type of projection, and thus excluding a pure recess, based on the context of the term in the claim itself and the disclosures in the specification. First, Sun Coast echoes the district court’s conclusion that the claim language states that the trunnions are formed “on” the surfaces of the flanges and not “in” the surfaces, and therefore the claim language itself does not support CCL’s argument that a trunnion could be a pure recess. Second, Sun Coast asserts that “[a] trunnion cannot be a [pure] recess because the specification describes a recess as part of the projecting trunnion . . . .” (Pls.-Cross Appellants’ Br. 48.) Finally, Sun Coast argues that as correctly construed, the projecting “trunnions” cannot contain a recess and if such a construction excludes the preferred embodiment it is because of poor claim drafting.

“[T]he words of a claim ‘are generally given their ordinary and customary meaning.’” Phillips, 415 F.3d at 1312 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). That ordinary meaning “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” Id. at 1313. “[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms.” Id. at 1314. In particular, “the context in which a

term is used in the asserted claim” and the “[o]ther claims of the patent in question” are useful for understanding the ordinary meaning. Id. As we have stated on numerous occasions, the claims “must be read in view of the specification, of which they are a part.” Markman, 52 F.3d at 979. “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” Phillips, 415 F.3d at 1315 (quoting Vitronics, 90 F.3d at 1582).

We can discern no error in the district court’s Markman construction of the term “trunnions.” First, the claim language itself states “hinge-forming trunnions being formed on inwardly facing surfaces of said flanges[.]” ’085 patent, col. 7, ll. 9-10 (emphasis added). We do not believe that the term “on” was merely a reference to the location of the trunnions, but rather a limitation on the types of trunnions which were being claimed. Thus, we agree that the claim language itself does not support a construction of the term that would consist of a pure recess as such a trunnion would no longer be formed “on” the surface of the flanges, but rather “in” the surface. The claim language, however, supports a construction that the trunnions must be some type of projection, as that projection would aptly be considered “on” the surface of the flanges. Second, the specification consistently refers to trunnions as being some type of projection and the preferred embodiment is described as having “a short inwardly extending trunnion-like projection 28, 30[.]” This is not, however, a limitation which is only associated with the preferred embodiment as argued by CCL. ’085 patent, col. 4, ll. 12-13. The “Summary of Invention” section states that the “trunnions which project inwardly from upper ends of flanges extend from the side walls of the calculator

housing, . . . to . . . the opposite open ends of the cylindrical bores and form hinge connections for the lid structure with the calculator housing.” ’085 patent, col. 2, ll. 45-50 (emphasis added). Therefore, based on the context of the claim language and the description of the trunnions in the specification, we agree with the district court that the term trunnions be construed as “pins or pivots usually mounted on bearings for rotating or tilting something that project from the inwardly facing surface of the flanges.”<sup>1</sup>

While we affirm the district court’s Markman construction of “trunnions,” we note that there is no additional limitation which prevents the trunnion from being some type of projection which contains a recess.<sup>2</sup> First, the context of the claim language does not exclude a projection containing a recess because such a trunnion would still be “on” the surface of the flanges. Second, such a projection is specifically disclosed as part of the preferred embodiment. Figure 9 of the ’085 patent illustrates that, “[o]ne of the projections 28 is larger in diameter, and projection 28 contains a circular recess 32 including a horizontal rib 34 extending radially from the bottom of the recess 32.” ’085 patent, col. 4, ll. 13-17 (emphasis added).

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<sup>1</sup> This was essentially the district court’s claim construction embodied in its Markman opinion, although we have compressed the court’s statements into a one sentence construction. See Markman Opinion, slip op. at 13.

<sup>2</sup> In the district court’s summary judgment order, it appears that the court may have limited the term “trunnions” to solid projections (i.e., those that do not contain a recess). While the term as construed in the Markman opinion was limited to some type of projection, thereby excluding a pure recess, there is no subsequent limitation on the projection such that it could not itself include a recess.

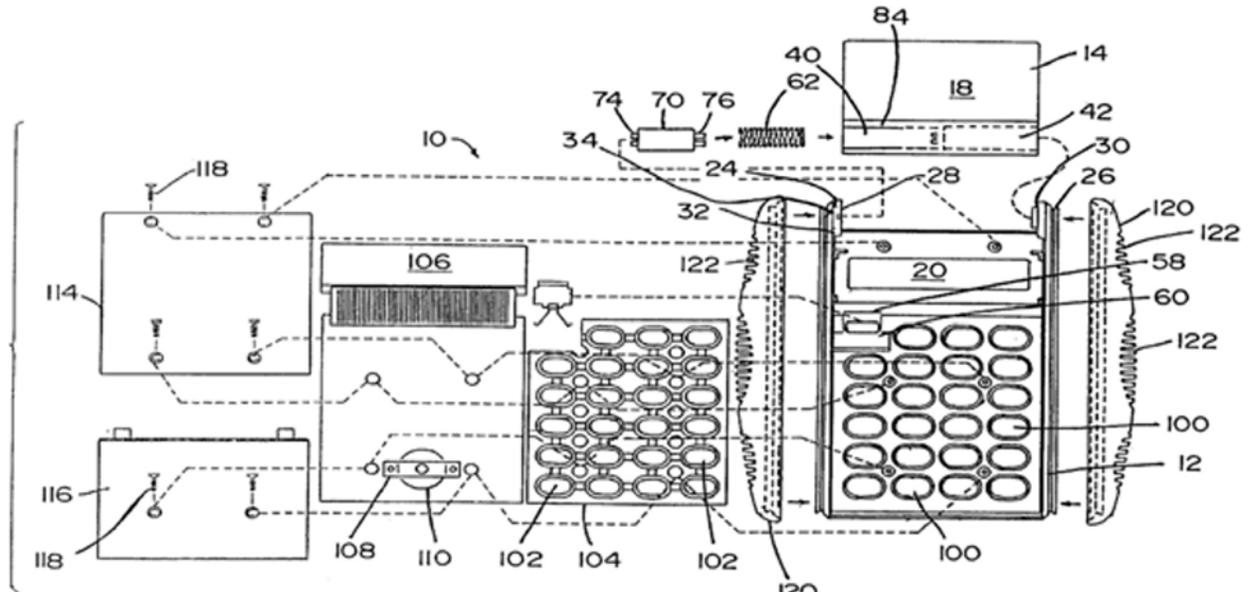


FIG. 9

As shown in Figure 9, projection 28 is a trunnion which contains a recess. Thus, a construction of the term “trunnion” that excludes a projection containing a recess would exclude projection 28 as shown in Figure 9. Third, as Sun Coast admits, “the specification describes a recess as part of the projecting trunnion . . . .” (Pls.-Cross Appellants’ Br. 48.) Therefore, there is no apparent reason to limit the term in a way that would exclude the preferred embodiment. Accordingly, based on the claim language and the disclosures in the specification, the term trunnion, although required to contain a projection, is broad enough to include a projection with a recess, an example of which is shown in Figure 9 of the preferred embodiment, and to the extent that the district court may have applied a more limited construction of the term in its summary judgment order, that application was erroneous.

b. “damping means”

Because we find that the district court erred in its infringement analysis of whether the accused modified design calculator practices the “damping means

arranged within at least one said cylindrical bore” limitation of claim 1, see infra Part II.B.2.b., it becomes necessary for us to address the court’s claim construction of the term “damping means.” The district court correctly determined that “damping means” is a means-plus-function claim limitation. The district court erred, however, in identifying the function of the “damping means,” as merely “restrain[ing], in a controlled manner, the force of the helical spring when it is released.” Markman Opinion, slip op. at 15. The language of claim 1, “biasing said lid toward a rearwardly pivoted position, and effectuating a controlled pivotal motion of said lid structure . . . [,]” makes clear that there are two functions of the “damping means”: (1) biasing the lid toward a rearwardly pivoted position and (2) effectuating a controlled pivotal motion of the lid. Having misconstrued the functions of the “damping means,” the district court also erred in determining which structures are identified in the specification as performing those functions. In two places, the specification discusses the structures involved with both biasing and effectuating a controlled pivotal motion of the lid structure. In column 4, the specification states,

[a]s shown in . . . FIGS. 8(a) through (c), a damping drum 70 . . . in conjunction with the helical coil spring 62 form the lid mechanism 16 for effectuating the pivoting movement of the lid structure 14 relative to the housing 12. The assembly of the components of the lid mechanism 16 into the blind bore 40 so as to effectively facilitate the controlled damped pivoting of the lid structure comprises inserting the helical coil spring 62 into the blind bore 40 . . . .

'085 patent, col. 4, ll. 48-60 (emphases added). This portion of the specification makes clear that the damping drum 70 and the helical coil spring 62 bias and effectuate the pivoting movement of the lid structure and that these structures are the components of

the lid mechanism which facilitate the controlled damped pivoting of the lid structure. In addition, the specification states that

[t]he rate of movement or speed in the rearward pivoting of the lid structure 14 upon the release thereof is controlled by means of the damping drum 70 and the damping grease 84 arranged thereabout in contact with the inner surface of the blind bore 40 which, in essence, forms a damping cylinder.

Id. at col. 5, ll. 44-49 (emphases added). This portion of the specification makes clear that the damping drum 70 and the damping grease 84 control the rate of movement or speed of the lid structure as it pivots rearward. Thus, reading these two portions of the specification together compels the conclusion that the corresponding structures identified in the specification for performing the functions of biasing the lid toward a rearwardly pivoted position and effectuating a controlled pivotal motion of the lid are the damping drum 70, the helical coil spring 62, and the damping grease 84.<sup>3</sup>

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<sup>3</sup> We note that the conclusion that the structure includes the helical coil spring 62 does not violate the doctrine of claim differentiation, even though the district court determined otherwise. Claim 3 explicitly claims “[a] calculator . . . wherein said damping means comprises a helical coil spring . . . and a damping drum . . . .” ’085 patent, col. 7, ll. 33-36. Thus, claim 3 explicitly states that the “damping means” includes a helical coil spring and a damping drum. If including the helical coil spring as part of the structure for the “damping means” limitation in claim 1 violates the doctrine of claim differentiation, then including the damping drum as part of that structure would do so as well because it is also explicitly referenced in claim 3. Regardless, including the spring and drum as part of the “damping means” structure does not violate the doctrine of claim differentiation because claim 3 includes several limitations not present in claim 1 pertaining to the orientation and location of the spring and drum in relation to the blind bore and each other.

## 2. Literal Infringement

Because the district court's summary judgment order separately discusses each of the accused calculator designs, we have followed suit and continue to discuss each design separately.

### a. Original Design

In its summary judgment opinion, the district court concluded that the original design calculators were missing at least two limitations of claim 1. First, the court found that “the calculators do not have projections on the inner surface of both sides of the housing about which the lid rotates.” Summary Judgment Order, slip op. at 10. Second, in noting that the calculators do not have projections, the court also stated that they “do not have flanges with hinge-forming trunnions (pins or pivots) that are distinct components.” Id. Third, the court concluded by observing that the calculators “only appear to have a single flange with an inwardly facing structural element.” Id.

Literal infringement requires that each and every limitation set forth in a claim appear in an accused product. Frank's Casing Crew & Rental Tools, Inc. v. Weatherford Int'l, Inc., 389 F.3d 1370, 1278 (Fed. Cir. 2004) (citing Becton Dickinson & Co. v. C.R. Bard, Inc., 922 F.2d 792, 796 (Fed. Cir. 1990)). With regard to the district court's first finding, it is not entirely clear to us whether the court's conclusion that the original design calculators lacked projections on the inner surface of both sides of the housing was based on the incorrect understanding that a trunnion could not consist of a projection containing a recess. Because it appears that the district court's finding may have been based on that incorrect understanding, we are unable to discern on this record whether this issue (i.e., the factual determination of whether the original design

calculators include “trunnions” as that term has been construed by this panel) is amenable to summary judgment or whether genuine issues of material fact remain as to whether the original design calculators practice this claim limitation.

Second, the parties apparently agree that there is no prohibition on the trunnions and flanges being formed as one integral piece. (See Pls.-Cross Appellants’ Br. 52.) It appears that the district court’s comment about trunnions and flanges being “distinct components” was not made in an attempt to further construe the claim terms, but rather in response to submissions by CCL which purported to label the same structure as both a flange and a trunnion. While there is no question that the trunnions and flanges must be distinctly identifiable, it is also clear that they are related. For example, the trunnions are identified in the specification as being parts of the flanges, “the housing 12 includes a pair of upwardly extending flange elements 24, 26 at opposite sides thereof, each of which includes a short inwardly extending trunnion-like projection 28, 30.” ’085 patent, col. 4, ll. 9-13. Thus, if the district court meant this statement as a comment in response to CCL’s submissions, namely that the trunnions and flanges be distinctly identifiable, then we agree. If, on the other hand, the district court meant this statement to be another limitation of the claim rather than a comment on CCL’s submissions, we find that there is a genuine issue of material fact as to whether the flanges and trunnions in the original design are distinctly identifiable so that summary judgment based on this reason alone is not appropriate. Accordingly, at least some additional clarification is required.

Third, the court also concluded that the original design “appears” to contain only a single flange with an inwardly facing structural element or projection, whereas the

claims require “a pair of flanges[,]” each of which containing a trunnion formed on the inwardly facing surface. See, e.g., '085 patent, col. 7, ll. 7-10. Even if we were to accept the district court’s statement as a definitive finding that the original design contains only a single flange with a trunnion, we must vacate the district court’s conclusion as it is unclear whether the court applied an erroneous construction of the “trunnions” term because the court has failed to set forth what, if any, structure the original design calculators have on the other side of the housing. Thus, we cannot determine in the first instance if whatever structure there may be qualifies as a trunnion.

Notably, we express no opinion with respect to whether summary judgment may ultimately be appropriate in light of the clarified claim construction rulings and their subsequent effect on the summary judgment order of the district court. We leave that determination to the district court in the first instance after considering any subsequent summary judgment briefing or argument by the parties that the court may deem necessary. If genuine issues of material fact remain as to whether the original design calculators possess each and every limitation of the claims, then the appropriate conclusion is to deny summary judgment and let the facts be decided at trial.

#### b. Modified Design

In its summary judgment opinion, the district court concluded that the modified design calculators are missing two of the limitations of claim 1. First, the court found that “[t]he modified design does not have flanges with hinge-forming trunnions as required by claim 1(a); instead there are protruding extensions on each end of the covering portion’s cylindrical barrel that insert into recesses in the housing body.” Summary Judgment Order, slip op. at 11. Second, the court found that the calculators

do “not have the damping means arranged within one of the cylindrical bores of the lid structure. Rather, the damping means is primarily located within the housing.” Id.

First, because the district court’s conclusion with respect to the trunnion limitation may be affected by our clarified claim construction, we vacate the court’s finding of summary judgment of noninfringement with respect to this term. Second, the district court found that the “damping means” in the modified design calculators was not arranged within one of the cylindrical bores of the lid structure. Thus, as the parties have argued, the court was apparently focused on the term “within.” The difficulty we have in reviewing the district court’s finding regarding this term is not necessarily the finding itself, but rather the court’s analysis which led to its finding. This is so because the full term in context is “a lid operating mechanism including damping means arranged within at least one said cylindrical bore . . . .” ’085 patent, col. 7, ll. 19-20 (emphasis added). As previously discussed, the “damping means” limitation is a 35 U.S.C. § 112, ¶ 6 limitation, whose functions are to bias the lid toward a rearwardly pivoted position and effectuate a controlled pivotal motion of the lid. See supra Part II.B.1.b. Additionally, as we have clarified, the corresponding structures are the damping drum 70, the helical coil spring 62, and the damping grease 84. Id.

“Literal infringement of a § 112, ¶ 6 limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification.” Frank’s Casing, 389 F.3d at 1378 (quoting Odetics, Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1267 (Fed. Cir. 1999)). To determine whether a § 112, ¶ 6 limitation is literally infringed, “the court must compare the accused structure with the disclosed structure, and must find

equivalent structure as well as identity of claimed function for the structure.” Id. (emphasis altered) (citation omitted). Although we recognize that the district court was not purporting to find that the modified design calculators lacked the “damping means” itself, the district court did not identify which structure(s) of the modified design calculators, if any, performs the claimed function of the “damping means.” It is therefore impossible, on the record before us, to determine whether that yet identified structure is “arranged within at least one said cylindrical bore” as required by the claim or whether the district court correctly held on summary judgment that no genuine issue of material fact exists as to whether the modified design calculators satisfy this claim limitation.

We further note that what appears to be relevant to this inquiry is whether the structure, yet to be identified in the modified design calculators, performs the biasing and effectuating a controlled pivotal motion functions “within at least one said cylindrical bore.” Thus, if the relevant structure in the accused calculators is partially arranged within the bore, the appropriate inquiry seems to be whether that portion arranged within the bore is involved in performing the identified functions (i.e., biasing the lid toward a rearwardly pivoted position and effectuating a controlled pivotal motion of the lid). Accordingly, the court’s finding of summary judgment of noninfringement with respect to the modified design calculators must be vacated.

Again, we express no opinion with respect to whether summary judgment may ultimately be appropriate in light of the clarified claim construction rulings and the court’s conclusions with respect to the § 112, ¶ 6 issue discussed above. We leave that determination to the district court in the first instance after considering any subsequent summary judgment briefing or argument by the parties that the court may deem

necessary. If genuine issues of material fact remain as to whether the modified design calculators possess each and every limitation of the claims, then the appropriate conclusion is to deny summary judgment and let the facts be decided at trial.

c. Double Flipper

In its summary judgment opinion, the district court concluded that the double flipper was noninfringing for the same reasons it found that the modified design calculators were noninfringing. Additionally, the court found that

[b]ecause there are two closing layers in the double flipper, the lid structure does not cover the display panel in the closed position, nor does it expose the display panel when opened. Instead, when the lid structure covering the display is opened, the second portion of the housing covers the display panel (this second portion of the housing then opens.)

Summary Judgment Order, slip op. at 11.

On appeal, CCL argues that the district court impermissibly construed the claim term to require that the lid “directly” cover and alternatively, “directly” expose the display panel. CCL asserts that the presence of an intervening structure does not affect the covering and exposing functions of the lid.

We disagree. The claim language requires that the lid pivot “between the closed position thereof covering said display panel and the rearwardly pivoted position exposing said display panel and forming a stand for supporting said calculator in a tilted position on a horizontal surface.” ’085 patent, col. 7, ll. 22-26 (emphasis added). Regardless of whether the lid in the double flipper covers the display panel in the closed position, the district court correctly concluded that when the lid structure opens (i.e., moves toward the rearwardly pivoted position), the display panel is not exposed because a second portion of the housing still covers the display. This finding, that the

double flipper lacks a lid structure which exposes the display panel in the rearwardly pivoted position, permits an affirmance of summary judgment of non-infringement because each and every limitation of the claim (i.e., the covering and exposing limitations) does not appear in the double-flipper. See Frank's Casing, 389 F.3d at 1278.

### 3. Infringement Under the Doctrine of Equivalents

While the district court's examination of the accused calculators and the court's findings of infringement were in the context of literal infringement, the court also found that CCL failed to

produce evidence of the equivalency of Sun Coast's products and the limitations of claim 1. . . . [such that] [t]here is no question of fact here as there has been no evidence presented to the Court of any infringement by an equivalent to the cited claim elements. . . . on which a reasonable jury could base a finding of equivalence.

Summary Judgment Order, slip op. at 8 n.5. The court had no reason to formulate its own possible theories of infringement under the doctrine of equivalents when CCL had failed to offer any evidence supporting such a finding. Sun Coast clearly asserted that CCL failed to offer any evidence on infringement under the doctrine of equivalents in its motion for partial summary judgment. Thus, the issue was squarely raised before CCL submitted its opposition brief. Accordingly, there was no obligation for the district court to provide CCL a further opportunity to supplement the record when it failed to present evidence of infringement under the doctrine of equivalents in its brief in opposition to Sun Coast's summary judgment motion. Further, the district court clarified that it "did not rely on either . . . [the Ram or Bhavnani] declarations in making its findings[.]" contrary to CCL's assertion that the court improperly relied upon statements made in

declarations attached to Sun Coast's reply brief. Summary Judgment Order, slip op. at 9 n.6. Therefore, there was no obligation for the court to consider evidence (e.g., Chan's declaration) that CCL only first presented in its response to the court's minute order. As such, we do not disturb the court's findings with respect to infringement under the doctrine of equivalents.

#### 4. Cross-Appeal

Sun Coast's cross-appeal challenges the district court's denial of attorney fees. Specifically, Sun Coast asserts that the district court committed clear error by not finding that this case was "exceptional" under 35 U.S.C. § 285; and abused its discretion by (1) refusing to award fees to Sun Coast under § 285, (2) alternatively not awarding fees under 28 U.S.C. § 1927, and (3) alternatively not awarding fees under its inherent powers. CCL asserts in response that the district court's finding that this case was not exceptional is not clearly erroneous, and that Sun Coast has failed to show that the court abused its discretion in failing to award attorney fees.

We detect no clear error or abuse of discretion in the district court's denial of Sun Coast's motion for attorney fees. First, under 35 U.S.C. § 285, the court found that Sun Coast failed to establish by clear and convincing evidence actual wrongful intent or gross negligence by CCL. Although the district court acknowledged that CCL committed numerous violations of the local rules, and an unjustified number of ex parte applications, its conduct did not rise to the level of gross negligence or bad faith and vexatious litigation. "Taken in its totality, the record does not demonstrate with convincing clarity the egregiousness of CCL's counsel's conduct or a bad faith and vexatious multiplication of proceedings." Attorney Fees Order, slip op. at 2. Second,

the court similarly rejected Sun Coast's argument for fees under 28 U.S.C. § 1927 because the court found that CCL's counsel had not multiplied the proceedings unreasonably and vexatiously, and found that any protracted proceedings were equally attributable to Sun Coast's failure to identify all the calculators at issue in its motion for summary judgment. Lastly, the court rejected Sun Coast's argument for fees under the court's inherent powers because it found that the conduct of CCL and its counsel was not sufficiently egregious to warrant sanctions.

The district court judge is in the best position, after presiding over the preparation and trial of the case, to "weigh the relevant considerations, such as the closeness of the case, the tactics of counsel, the flagrant or good faith character of the parties' conduct, and any other factors contributing to imposition of punitive sanctions or to fair allocation of the burdens of litigation." Frank's Casing, 389 F.3d at 1379 (citations omitted); Perricone v. Medicis Pharm. Corp., 432 F.3d 1368, 1380-81 (Fed. Cir. 2005). The court fully considered Sun Coast's arguments but found that CCL and its counsel's conduct was not so egregious as to warrant an award of attorney fees. We can discern no clear error in the district court's factual findings, nor any abuse of discretion in the court's ultimate denial of attorney fees.

### III. CONCLUSION

Because we have clarified the construction of "trunnions" and "damping means", and several issues remain to be addressed by the district court, we remand for the district court to determine whether Sun Coast's original and modified designs literally infringe the asserted claims of the '085 patent. These clarifications, however, do not affect the district court's ultimate conclusion with respect to Sun Coast's Calc-0050

model because the court's decision relied upon the lack of the "covering" and "exposing" limitations, which we have not altered in such a way to create genuine issues of material fact with respect to whether the Calc-0050 infringes claim 1 of the '085 patent. Accordingly, we vacate the summary judgment findings with respect to literal infringement of the original and modified designs, affirm both the summary judgment findings of noninfringement with respect to literal infringement of the Calc-0050 model and noninfringement under the doctrine of equivalents of all calculator models at issue, affirm the district court's denial of attorney fees, and remand for further proceedings consistent with this opinion.

Each party shall bear its own costs.