UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

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LOGGERHEAD TOOLS, LLC Plaintiff, v. SEARS HOLDING CORPORATION and APEX TOOL GROUP, LLC

No. 12 C 9033

Judge Rebecca R. Pallmeyer

Defendant(s).

MEMORANDUM OPINION AND ORDER

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Plaintiff LoggerHead Tools, LLC sued Defendants Sears Holdings Corporation and Apex Tool Group, LLC alleging, *inter alia*, willful infringement of United States Patents No. 6,889,579 (hereafter "579 patent") and No. 7,992,470 (hereafter "470 patent"). Judge John Darrah construed the claims of the patents, and after his death the case proceeded to trial before this court. A jury returned a verdict for Plaintiff. Defendants have moved for reconsideration of Judge Darrah's claim-construction opinion and for judgment as a matter of law on the issues of infringement, invalidity, and willfulness. In the alternative, they request a new trial on the issue of willfulness.

As explained in greater detail below, the court agrees with Defendants that Judge Darrah's claim construction reads important language out of the patents. This language relates to the shape of the "gripping element" in the hand tool those patents describe. Plaintiff's patent claims require that the gripping element include an "arm portion," which in turn must be "configured to engage" certain other components of the hand tool. Based on Judge Darrah's claim construction, however, the jury was instructed that the tool need only include a "portion of the gripping element(s) configured to engage" those other components.

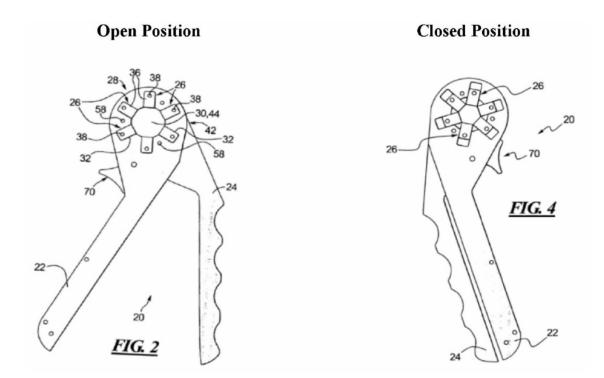
Although the court agrees with Defendants that the prior claim construction (and thus the jury instruction) was erroneous, it does not agree that the appropriate remedy is to grant

judgment as a matter of law to Defendants based on their proposed alternative construction. Doing so would unfairly deprive Plaintiff of an opportunity to present arguments that the Defendants infringe Plaintiff's patents, even when those patents are properly construed. Instead, the court concludes that the erroneous jury instruction requires a new trial on the issues of infringement and invalidity, as well as willfulness. The court therefore denies Defendants' motion for judgment as a matter of law and grants their alternative motion for a new trial.

BACKGROUND

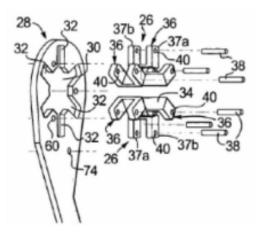
I. LoggerHead's patents

Plaintiff is the assignee of two patents at issue in this case. (Def.'s Local Rule 56.1 Statement of Facts [280] (hereafter "DSOF") ¶ 9.) Both patents claim priority back to an application filed on January 23, 2004, both are titled "Adjustable Gripping Tool," and both describe a hand-tool designed to "impart work upon a workpiece." (*Id.* at ¶ 10.) The parties dispute whether the patent claims are limited to wrenches, rather than a broader range of "adjustable gripping tools," (Pl.'s Statement of Disputed Material Facts (hereafter "PSODMF") [301-1], at ¶ 10), but the version of the tool relevant to this case is, for all practical purposes, a wrench. Squeezing the tool's handles together causes several tooth-like "gripping elements" to close in on, and grip, a lug nut or other workpiece. An embodiment of the tool appears below:



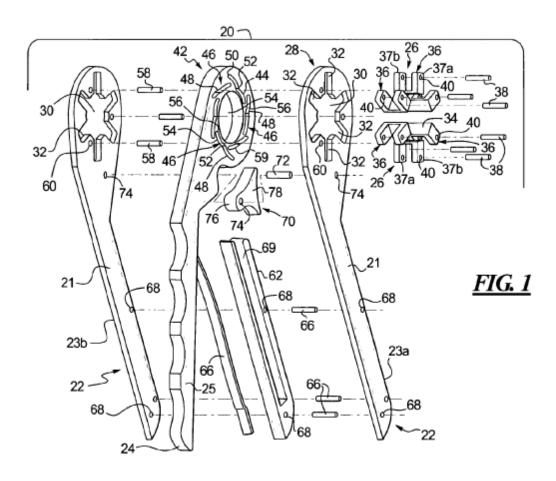
(DSOF ¶¶ 9-10.)

All of the asserted claims in these patents include a "first element" (number 22 in the figures above) and a "second element" (number 24 above). (DSOF ¶¶ 16, 19.) The first element includes at least one gripping element (26), which in turn includes a body portion (34), an arm portion (36), and a force transfer element (38). (DSOF ¶ 16.) A more detailed embodiment of the gripping element appears below:



(PTX 1 LH-00001225, App. 3 to Defs.' Mot. for J. as a Matter of Law [456] (hereafter "Defs.' Mot. for JMOL").)

The second element (24 in the figure below) includes an opening (44) concentric with an opening in the first element (30), an actuation portion (42), and at least one slot (46). (DSOF ¶ 19.) In the '470 patent, these features must be "formed within and integral to the tool head." (*Id.*) An embodiment of the second element appears in the center of the image below:



(PTX 1 LH-00001225, App. 3 to Defs.' Mot. for JMOL.)

During prosecution of the '470 patent, the patent examiner initially rejected several of Plaintiff's claims on the grounds that they were anticipated by United States Patent No. 2,787,925 (hereafter "Buchanan patent"). (DSOF ¶ 13.) That patent, dated April 9, 1957, and titled "Wire Crimping Tool with Cam-Slot Actuating Means," describes a "multifunctional tool, more especially adapted for use in the insulted electrical wire art," which can be used "to carry

out a wide variety of operations . . . such for example as cutting, splicing, insulation stripping, holding, crimping, etc." (DTX 75 LH-00002333, App. 4 to Defs.' Mot. for JMOL.) The Buchanan patent claims, *inter alia*, "a wireworking tool having a plurality of centrally converging crimping plungers, means to converge said crimping plungers comprising a central cam plate having a central aperture therein and a plurality of radial slots." (*Id.*) An image from the Buchanan patent appears below:

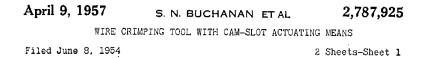
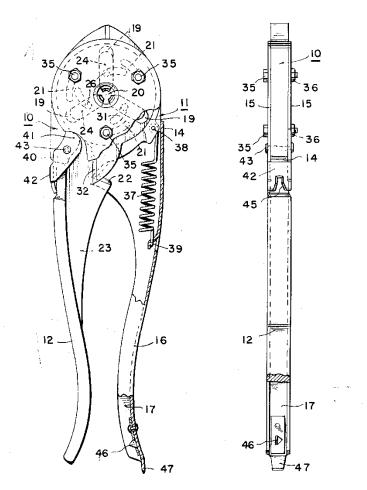


FIG I FIG 2



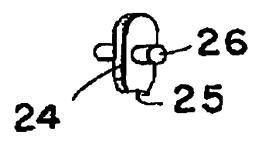
INVENTORS STEPHEN N. BUCHANAN, & DANIEL B. KUSIV BY Wendworth, Juid & Prnach

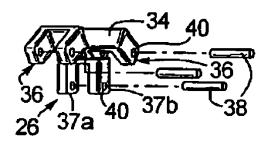
ATTORNEYS

(*Id.* at LH-00002332.)

The Patent Office appears to have provided only a cursory explanation for its initial rejection of Plaintiff's claims as anticipated by Buchanan. Most of this explanation simply identifies the similarities between the two patents by reciting Plaintiff's own proposed claims together with numerical references to the illustration of Buchanan above to demonstrate the similarities between the tools. (See PTX 4 LH-00001798, App. 3 to Def.'s Mot. for JMOL.) The examiner's explanation states, for example, that "Buchanan et al. discloses an adjustable an adjustable [sic] gripping tool for engaging a work piece to impart work thereto, the tool comprising . . . a first element (16) and a second element (12) connected for relative movement which generates movement of at least one gripping element (25)." (*Id.*) Buchanan's gripping element, in turn, "includ[es] a body portion (24) adapted for engaging the work piece, an arm portion (adj. 25) configured to engage one [of] the at least one guide (19) and a force transfer element (26) contiguous with the arm portion." (*Id.*)

In response to the examiner's rejection, Plaintiff argued that Buchanan could not have anticipated Plaintiff's claims because "Buchanan's gripping element does not contain an arm portion," as Plaintiff's proposed claims required. (*Id.* at LH-00001837.) "Instead," Plaintiff explained, "the force transfer element (i.e., pin 26) of Buchanan is directly attached to the body portion." (*Id.*) Buchanan's force transfer element, Plaintiff continued, "is contiguous with the body, not an arm portion because Buchanan does not teach or suggest an arm portion." (*Id.*) Plaintiff included the following image in its response, attempting to distinguish Plaintiff's gripping element from the element labeled "plunger" in the Buchanan patent:





Buchanan's Plunger

Applicant's Gripping Element

(*Id.* at LH-00001836.)

These arguments persuaded the patent examiner to allow Plaintiff's claims. (*Id.* at LH-00001853.) Buchanan, the examiner concluded, "fails to provide, *inter alia*, at least one gripping element including *a body portion . . . , and arm portion* configured to engage on said at least one guide *and a force transfer element* contiguous with the arm portion." (*Id.* (emphasis in original.))

II. Sears discovers the market for adjustable gripping tools

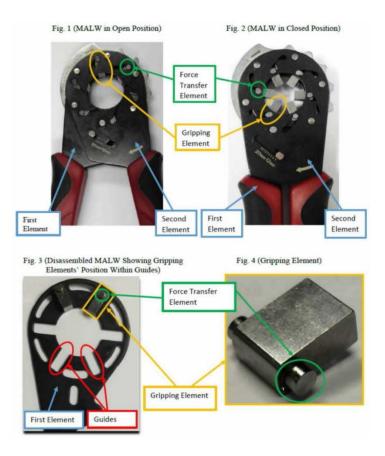
Defendant Sears Holding Corporation began retailing LoggerHead's "Bionic Wrench" in 2009. (Pl.'s Statement of Disputed Material Facts in Opp. to Defs.' Mot. for Summ. J. on Pl.'s Fraud Claims [311-1] (hereafter "PSDMF on Fraud Claims") ¶ 4.) Sears ordered 15,000 Bionic Wrenches that year and 75,000 wrenches the following year. (*Id.* at ¶ 7.) In the spring of 2011, Sears and LoggerHead agreed to terms for the promotion and sale of the Bionic Wrench through January 31, 2012. (*Id.* at ¶ 8.) Pursuant to this agreement, Sears promoted the Bionic Wrench through direct-to-consumer television promotion during the 2011 Christmas shopping season, resulting in "significantly" increased sales of the product. (*Id.* at ¶ 10.) The two companies negotiated for several months over promotional terms for the following year, but never finalized an agreement. (*Id.* at ¶ 59.). Dan Brown Jr. represented LoggerHead in these negotiations and Stephanie Kaleta represented Sears. (*Id.* at ¶¶ 12, 17.)

As negotiations wore on, both parties began to explore alternatives to a deal. In February 2012, LoggerHead informed Sears that it would "be pursuing TV promotions with all other possible outlets for 2012." LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5111573, at *2 (N.D. III. Sept. 20, 2016). Around the same time, Sears began to formulate what Kaleta's supervisor referred to as a "backup plan," which involved negotiations with Defendant Apex Tool Group to develop and market another adjustable gripping tool. (PSDMF on Fraud Claims ¶¶ 44-45.) On May 15, 2012, a Sears inventory analyst provided LoggerHead with a "120 day advanced notice of Q4 forecast" that identified the number of Bionic Wrenches Sears anticipated purchasing as part of its proposed marketing agreement with LoggerHead. (Id. at ¶ 38.) The analyst's forecast stated that it was "subject to change pending father's day performance and finalization of Q4 marketing assets." (Id.) On May 17, Brown Jr. explained in an email to Kaleta that LoggerHead anticipated "selling our production out" as a result of Sears' forecast and "strong demand for the fourth guarter." (Id. at ¶ 40.) Kaleta quickly confirmed with Apex that the company would be able to produce enough units of its own adjustable gripping tool to justify a direct-to-consumer television promotional campaign. and on May 25 Sears withdrew from promotional negotiations with LoggerHead. (Id. at ¶¶ 53-56.) The next month, Sears informed LoggerHead that it expected to purchase fewer Bionic Wrenches than the parties had previously discussed. (Id. at ¶ 57.) Nevertheless, Sears continued to purchase Bionic Wrenches from LoggerHead and continued to sell the product on its website through at least June 2016. (*Id.* at ¶ 59.)

Both Sears and Apex were aware of LoggerHead's patents during the development of their backup plan. (Defs.' Resp. to PI.'s SOF on Infringement [306], at 8.) Apex consulted with outside patent counsel on numerous occasions during the design process. (PSODMF ¶ 30.) On one such occasion, in March 2012, attorney John Owen (of the firm Coats & Bennett, PLLC) suggested to Apex that mimicking certain design features from Buchanan's wire-crimping tool would likely preclude a finding that Apex had infringed LoggerHead's patents. (Letter from John Owen to Eric Broadway, Ex. 14 to DSOF.) Owen noted that LoggerHead had "argued multiple times during prosecution . . . that Buchanan's plungers do not have an arm portion." (*Id.*

(emphasis in original.)) "This means," Owen explained, "that [LoggerHead] is very likely prevented from now asserting that a flat body structure like in Buchanan's 'plungers' falls within the scope of [LoggerHead's] claims that require an arm portion on the gripping element." (*Id.*) Owen advised Apex that it would be "likely to avoid [LoggerHead's] patents" if its tool included, among other design features, a "flat type gripping element like Buchanan's plungers." (*Id.*)

Sears began retailing Apex's tool, styled as the "Max Axess Locking Wrench" (hereafter "Max Axess" or "MALW"), in September 2012. *LoggerHead Tools, LLC v. Sears Holding Corp.*, No. 12-cv-9033, 2016 WL 5080028, at *1 (N.D. III. Sept. 20, 2016). The MALW appears similar, though not identical, to the tool depicted in LoggerHead's patents. Both tools allow a user to squeeze two handles together and thereby cause several tooth-like gripping elements to close in on a lug nut or other workpiece. Both tools include a first element, a second element, guides, slots, force transfer elements, and gripping elements. (*Cf.* Def.'s Resp. to PI.'s SOF on Infringement 11.) Unlike the gripping element depicted in LoggerHead's patents, however, the MALW's gripping element is a solid rectangle rather than U-shaped. The rectangular shape of the gripping elements, in turn, requires that the MALW's force transfer elements make contact with the tool's slots on the sides of the gripping elements, rather than between each gripping element's arm portions. Images of the MALW appear below:



LoggerHead Tools, Inc. v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5112057, at *1 (N.D. III. Sept. 20, 2016).

III. Procedural history

Plaintiff filed suit against Defendants in November 2012, alleging willful infringement of multiple claims in both the '579 and the '470 patents.¹ (DSOF ¶ 8; Pl.'s Resp. to DSOF ¶ 8.) Plaintiff also alleged common law fraud, unfair competition, and numerous violations of the Lanham Act, the Illinois Consumer Fraud and Deceptive Business Practices Act, and the Illinois Uniform Deceptive Trade Practices Act. (Second Am. Compl. [136] ¶¶ 99-221.) The late Judge Darrah presided over the case until the Executive Committee of the Northern District of Illinois re-assigned it to this court on February 3, 2017. (See Order of the Executive Committee [390].)

¹ Plaintiff asserted claims 1, 2, 6, 9, 11, and 16-18 of the '579 patent and claims 1, 9, 10, and 33-35 of the '470 patent. (*See* DSOF ¶ 8; Pl.'s Resp. to DSOF ¶ 8.)

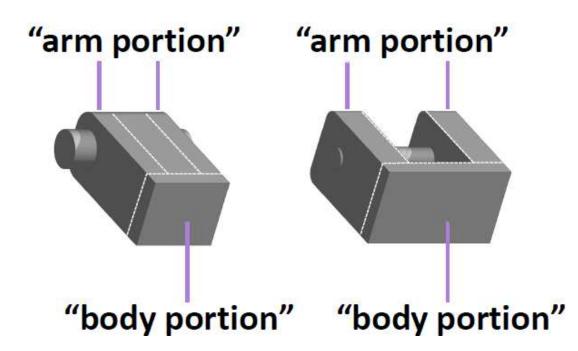
A key question in this litigation is whether the MALW's rectangular gripping element includes an "arm portion," as Plaintiff's patent claims expressly require. The meaning of the term "arm portion," however, is not immediately clear. Judge Darrah issued a claim construction opinion on August 27, 2015, which defined several ambiguous terms in Plaintiff's claims, including "arm portion." *See LoggerHead Tools, LLC v. Sears Holding Corp.*, No. 12-cv-9033, 2015 WL 5118063, at *3-5 (N.D. III. Aug. 27, 2015) (hereafter "*LoggerHead Claim Construction Opinion*"). Judge Darrah considered and rejected Defendants' proposed construction of "arm portion" as "portion of gripping element that projects from the body portion and to which the force transfer element is connected." *Id.* at *3-5. Instead, Judge Darrah concluded, "arm portion" simply means "portion of the gripping element." *Id.* at *5.

Defendants later moved for summary judgment on each of Plaintiff's claims. In a series of opinions published on September 20, 2016, Judge Darrah granted Defendants' motions as to all claims except those alleging patent infringement.² Plaintiff moved for reconsideration of the order granting summary judgment to Defendants on the issue of willfulness, but Judge Darrah denied this motion. *See LoggerHead Tools, LLC v. Sears Holding Corp.*, No. 12-cv-9033, 2016 WL 6778881 (N.D. III. Nov. 15, 2016). On March 2, 2017, shortly after the case was transferred to this court, Plaintiff again moved for reconsideration of the willfulness determination. This court entered Plaintiff's motion and continued it for determination in a bifurcated proceeding at trial. (*See* Notification of Docket Entry, March 8, 2017 [396].)

² See LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5110683 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5110683 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5112020 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5080028 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5111573 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5111573 (N.D. III. Sept. 20, 2016); LoggerHead Tools, LLC v. Sears Holding Corp., No. 12cv-9033, 2016 WL 5112017 (N.D. III. Sept. 20, 2016). Plaintiff also filed its own motion for summary judgment on the issue of infringement, which Judge Darrah denied. See LoggerHead Tools, LLC v. Sears Holding Corp., No. 12-cv-9033, 2016 WL 5112057 (N.D. III. Sept. 20, 2016).

The court presided over a two-week trial in early May 2017. There, the parties presented the jury with evidence on two key questions relevant to the motions now before this court: (1) whether the Max Axess wrench satisfies the "arm portion" limitation on the gripping element in Plaintiff's asserted claims, thereby infringing those claims; and (2) whether the earlier Buchanan patent satisfies the limitation requiring the "second element" in Plaintiff's asserted claims to include "an actuation portion . . . having at least one slot," thereby rendering those claims invalid as anticipated by Buchanan. Although not immediately relevant to any of Plaintiff's claims, the jury also heard testimony that LoggerHead manufactured many of its Bionic Wrenches in the United States, while "Sears wanted to go to China." (Trial Transcript (hereafter "Tr.") 427:16-431:14, App. 5 to Pl.'s Resp. to Defs.' Mot. for JMOL [471-5].) Tr.).

On the infringement question, Plaintiff's evidence consisted primarily of the testimony of its expert witness, a professor of mechanical engineering at Carnegie Mellon University named Jonathan Cagan. Dr. Cagan testified that the Max Axess Locking Wrench does, in fact, include an "arm portion." (*Id.* at 500:15-502:19.) Cagan showed the jury side-by-side illustrations of each tool's gripping element. To help the jury distinguish what he identified as the arm portion and the body portion of each gripping element, Dr. Cagan superimposed several white dotted lines that are not visible on either the tools themselves or in Plaintiff's patent claims. (*Id.*) Dr. Cagan's illustrations appear below, with the Max Axess gripping element depicted on the left and Plaintiff's gripping element depicted on the right:



(Cagan Demonstrative Ex.)

Defendants, in turn, presented expert testimony that the Max Axess gripping element does *not* include an arm portion. Frank Fronczak, a professor emeritus of mechanical engineering at the University of Wisconsin-Madison (and a self-identified "gearhead" since childhood), testified that a person of ordinary skill in the art "certainly" would not recognize anything in the Max Axess gripping element "that would be understood to be an arm portion versus a body portion. They would not parse it into portions." (Tr. 1065:11-1073:25, 1188:1-7.) Apex's outside patent counsel, John Owen, testified that he himself did not believe that the MALW's gripping element included "all three requirements of the claims in this case, a force transfer element, arm portion, and the body portion." (*Id.* at 1033:23-1034:3.) Both Fronczak and Owen described the Max Axess gripping element as, variously, a "block with a pin coming through it" (*Id.* at 1099:25-1100:1); "a block with a pin through it" (*Id.* at 1032:4-6); and "a basic block with a pin through it" (*Id.* at 1063:6).

The parties also presented conflicting evidence on invalidity. Fronczak testified that if the Max Axess wrench satisfies all the asserted limitations, then Buchanan necessarily does so as well. (*Id.* at 1122:15-1154:8.) Dr. Cagan, however, told the jury that the Buchanan tool does

not satisfy the limitation requiring the "second element" of the tool "to include an actuation portion having at least one slot." (*Id.* at 1244:8-25.) Buchanan fails to satisfy this limitation, he asserted, because its actuation portion is located on two "auxiliary cam plates" that are not themselves part of the second element. (*Id.*) Fronczak countered that it would be obvious to a person of ordinary skill in the art to "incorporate these slots, this actuation portion, into the tool head." (*Id.* at 1148:15-16.) Again, Cagan disagreed. Incorporating the slots, in his view, would *not* have been obvious to an ordinary person in the art. Such a person would, in Cagan's estimation, "say that . . . if I were to remove those cam plates and put the slots, for example, onto the second element, it wouldn't work. . . .First of all, it would be very difficult to manufacture; and then secondly, it would be very, very difficult to assemble because you have these pins that are sticking out if you remove the cam plate." (*Id.* at 1255:17-1256:1.)

The jury instructions included Judge Darrah's constructions of several claim terms, including "arm portion." That term, the instructions explained, "must" be defined as "[p]ortion of a gripping element(s) configured to engage one of the guides and contiguous with a force transfer element." (Final Jury Instr. [449], 27.) The jury returned a Plaintiff's verdict on willfulness, infringement, and invalidity alike, and awarded Plaintiff \$5,979,616 in damages before trebling. (Verdict Form [450]; Verdict Form [451].)

DISCUSSION

I. Judgment as a matter of law

Judgment as a matter of law may be granted where "a party has been fully heard on an issue and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue." FED. R. CIV. P. 50(a)(1). To determine whether the jury verdict had a legally sufficient evidentiary basis, the court "review[s] the record and draw[s] all reasonable inferences in the light most favorable to [the non-moving party]." *Kossman v. N.E. III. Reg'l Commuter R.R. Corp.*, 211 F.3d 1031, 1036 (7th Cir. 2000). It disregards all evidence favorable to the moving party unless the jury was required to believe that evidence. *Harvey v.*

Office of Banks and Real Estate, 377 F.3d 698, 707 (7th Cir. 2004). Although "a mere scintilla" of evidence supporting the jury's verdict is not enough to preclude judgment as a matter of law, *Hossack v. Floor Covering Associates of Joliet*, 492 F.3d 853, 859 (7th Cir. 2007) (quoting *Reeves v. Sanderson Plumbing Prods.*, 530 U.S. 133, 151 (2000)), the court must neither "weigh the evidence" nor "make credibility determinations." *Harvey*, 377 F.3d at 707. It must simply "determine whether a reasonable jury could have found in favor" of the non-moving party. *Id*.

Defendants do not argue that the jury lacked a sufficient evidentiary basis to find infringement under the definition of "arm portion" adopted by Judge Darrah during claim construction.³ Rather, they ask the court to adopt a different definition of "arm portion" and then hold that no reasonable jury could find infringement under that definition. In the alternative, they ask the court to hold that no reasonable jury could find the Plaintiff's claims to be valid while also finding that Defendants' infringed those claims. The court considers these requests in turn.

a. Infringement

Defendants ask the court to revise its previous construction of "arm portion" and then measure the evidence presented at trial against that construction. They characterize this as "rolling" claim construction, a practice repeatedly endorsed by the Federal Circuit. See *Pressure Prod. Med. Supplies, Inc. v. Greatbatch Ltd.*, 499 F.3d 1308, 1316 (Fed. Cir. 2010) (quoting *Pfizer, Inc. v. Teva Pharms., USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005) ("[D]istrict courts may engage in rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves.")). But the Federal Circuit has qualified its endorsement of rolling claim construction. It has warned, for

³ Defendants' motion does include a footnote in which they assert that "[e]ven under LoggerHead's application of the current construction, the Max Axess Locking Wrench cannot satisfy the arm portion as a matter of law." (Def.'s Mot. for JMOL 34 n.13.) But neither here nor anywhere in their reply brief do they show that the evidence Plaintiff presented at trial is legally insufficient under the current construction to support the jury's verdict. (*See* Pl.'s Resp. Br. 20-21.) Insofar as Defendants seek judgment as a matter of law on infringement under the current construction, their motion is denied.

example, of "the potential for surprise and prejudice in a late adjustment to the meaning of claim terms." *Pressure Prod.*, 599 F.3d at 1315-16 (finding revision of claim construction permissible because "the district court made the adjustment early enough in the trial to give [the defendant] an opportunity to consider the new construction and adjust its arguments to account for the change"); *see also CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1234 (Fed. Cir. 2005) (deferring to trial court's reasonable determination of "whether a party has had an adequate opportunity to present . . . arguments in the changing claim construction environment").

The Federal Circuit has also warned that "it is too late at the JMOL stage to argue for or adopt a new and more detailed interpretation of the claim language and test the jury verdict by that new and more detailed interpretation." *Wi-LAN, Inc. v. Apple, Inc.*, 811 F.3d 455, 466 (Fed. Cir. 2016) (quoting *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1321 (Fed. Cir. 2003). There are exceptions to this general rule, however. A district court may not "alter[] the scope of the original construction" after trial, *Wi-LAN,* 811 F.3d at 466, but it may "adjust constructions post-trial if the court merely elaborates on a meaning inherent in the previous construction." *Mformation Techs, Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1397-98 (Fed. Cir. 2014) (citing *Cordis Corp. v. Boston Scientific Corp.*, 658 F.3d 1347, 1356 (Fed. Cir. 2011)). It is permissible at the JMOL stage to "clarify[] a meaning inherent in the construction or mak[e] plain what should have been obvious to the jury." *Wi-LAN*, 877 F.3d at 466.

Here, the construction on which the parties relied during trial (and on which the jury was instructed) defines "arm portion" to mean "portion of a gripping element(s) configured to engage one of the guides and contiguous with a force transfer element." Defendants propose that "arm portion" be re-construed to mean "portion of gripping element that projects from the body portion and to which the force transfer element is connected." (Def.'s Mot. for JMOL 28-29.)

Defendants' proposed construction of "arm portion" does more than "merely elaborate[] on a meaning inherent in the previous construction." *Mformation*, 764 F.3d at 1398. It adds at least one independent requirement that is not inherent in the existing construction. In

Defendants' proposal, the arm portion of the gripping element must "project" from the body portion, rather than simply be "configured to engage one of the guides." Under the term's original construction, a "portion of a gripping element(s) configured to engage one of the guides" certainly *could* "project" from the body portion of the gripping element. But it need not always do so. Thus, adding a projection *limitation* does not "merely elaborate" on the existing construction and would run afoul of the rule in *Mformation*. The additional projection requirement makes Defendants' proposed construction similar to the one rejected in *Wi-LAN*, which would have reinterpreted the phrase "first computing means" to require "complex multipliers," even though such multipliers were "absent from the [existing] construction." *Wi-LAN*, 811 F.3d at 465. Just as the phrase "first computing means" does not inherently include "complex multipliers," a "portion of a gripping element(s) configured to engage one of the guides" does not inherently include "complex multipliers," a "portion of a gripping element(s) configured to engage one of the guides" does not inherently "project" from the body portion of the gripping element.⁴

It would be unfair to Plaintiff to measure the evidence presented at trial against Defendants' proposed construction. Had Plaintiff known during trial that the presence or lack of a projecting arm portion would determine the outcome of their infringement claim, Plaintiff might have introduced evidence that Defendants' gripping element includes an arm portion that projects from the body portion. Now that the trial is over, Plaintiff no longer has an "opportunity to consider the new construction and adjust its arguments to account for the change." *Pressure Prod.*, 599 F.3d at 1316. The conclusion that revisiting the construction now is improper is reinforced by the text of Rule 50, which states that judgment as a matter of law can be granted against a party who "has been fully heard on an issue during a jury trial." FED. R. CIV. P.

⁴ Defendants' proposed construction also requires that the "arm portion" of the gripping element be "connected" to "the force transfer element," rather than be "contiguous with a force transfer element." The parties dispute whether the new language narrows Plaintiff's claim. The court need not decide whether it does in fact, because the projection requirement in Defendants' proposed construction is, on its own, enough of a change to the existing construction to preclude the court from adopting it at the JMOL stage.

50(a)(1). By adopting Defendants' proposed construction after the trial is over, and then measuring the evidence presented at trial against that new construction, this court would deprive Plaintiff of the opportunity to be "fully heard" on the issue of infringement.

Insofar as Defendants' motion asks this court to adopt its proposed construction of "arm portion" and measure the jury's verdict against that construction, the motion is denied.

b. Invalidity

Defendants also ask the court to grant them judgment as a matter of law on the validity of Plaintiff's claims. No reasonable jury could find *both* infringement and validity, they argue, because "any distinctions between Buchanan and LoggerHead's asserted claims disappear when LoggerHead's claims are read to cover the Max Axess Locking Wrench." (Defs.' Mot. for JMOL 33.) In short, Defendants argue that the Max Axess wrench is sufficiently similar to Buchanan's crimping tool that if one tool infringes LoggerHead's claims, then the other necessarily must do so well. Because Buchanan's own claims predate LoggerHead's by nearly half a century, Defendants reason, any claim that is infringed by the Max Axess wrench must itself be invalid as anticipated by Buchanan.

To support this argument, Defendants correctly recite several relevant principles of patent law. The Federal Circuit has stated, for example, that "a product 'which would literally infringe if later in time anticipates if earlier." *Upsher-Smith Laboratories, Inc. v. Pamlab LLC,* 412 F.3d 1319, 1322 (Fed. Cir. 2005) (quoting *Schering Corp. v. Geneva Pharmaceuticals*, 339 F.3d 1373, 1379 (Fed. Cir. 2003)). It is also clear that a court cannot construe a claim one way for the purpose of determining the claim's validity and then construe it another way for the purpose of determining whether the claim was infringed. *See Abbott Laboratories v. Sandoz., Inc.*, 566 F.3d 1282, 1317-18 (Fed. Cir. 2009) (en banc) (Newman, J. dissenting in part) (collecting cases).

To prevail on their anticipation defense, however, Defendants must do more than show that the Max Axess wrench is "identical, in all material respects" to the Buchanan patent. *Zenith* *Electronics Corp. v. PDI Comm'cn Systems, Inc.*, 522 F.3d 1348, 1363 (Fed. Cir. 2008). They have the burden of proving by clear and convincing evidence "that each element of the claim at issue, properly construed, is found in a single prior art reference." *Id.* (citing *Tate Access Floors, Inc. v. Interface Architectural Resources, Inc.*, 279 F.3d 1357, 1367 (Fed. Cir. 2002)). The relevant question in deciding Defendants' motion, therefore, is whether a reasonable jury could have concluded that the evidence did not convincingly show that the Buchanan patent anticipated each element of LoggerHead's disputed claims.

At trial, Defendants' technical expert Frank Fronczak testified that if LoggerHead's claims are read in a way that permits a finding of infringement by the Max Axess wrench, then each of the asserted claims is also satisfied by the Buchanan patent. (See Defs.' Mot. for JMOL 34-35.) But Plaintiff presented conflicting testimony on this subject from Dr. Jonathan Cagan. According to Cagan, Buchanan does not satisfy the claim limitation requiring the "second element" of the tool "to include an actuation portion having at least one slot," regardless of whether that claim limitation appears in the Max Axess wrench. (Tr. 1244:8-25.) Buchanan fails to satisfy this limitation, Cagan asserted, because its actuation portion is located on two "auxiliary cam plates" that are not themselves part of the second element. (*Id.*)

Defendants challenge this testimony. They suggest that Cagan contradicted himself during the infringement phase of the trial by stating, *inter alia*, that "there's no reason why [the second element of LoggerHead's wrench] can't be, for example, made of two pieces." (Defs.' Mot. for JMOL 36; Tr. at 520:3-521:9.) But veracity determinations are for the jury to make. When deciding a motion for judgment as a matter of law this court must neither "weigh the evidence" nor "make credibility determinations." *Harvey*, 377 F.3d at 707.

Defendants also argue that no reasonable jury could find for Plaintiff on the issue of invalidity because all of LoggerHead's deviations from the Buchanan patent would have been obvious to a person of ordinary skill in the art. To support this argument, Defendants again rely on the testimony of Fronczak, which they claim Cagan failed to rebut. (Def.'s Mot. for JMOL 36-

37.) But Cagan did offer conflicting testimony on the issue of obviousness. A person of ordinary skill in the art, he asserted, would assume that "it wouldn't work" to "remove those cam plates and put the slots . . . onto the second element." (Tr. 1255:16-21.)

"[W]hen there is conflicting testimony at trial, and the evidence overall does not make only one finding on the point reasonable, the jury is permitted to make credibility determinations and believe the witness it considers more trustworthy." *MobileMedia Ideas, LLC v. Apple Inc.*, 780 F.3d 1159, 1168 (Fed. Cir.), *cert. denied* 136 S. Ct. 270 (2015). This court finds that a reasonable jury could have found insufficient evidence that each element of Plaintiff's claim is present in the prior art. Defendant's Motion for Judgment as a Matter of Law [456], therefore, is denied as to validity.

II. Reconsideration of existing construction

Although the court cannot adopt Defendants' proposed construction for the purpose of granting judgment as a matter of law on infringement, it can do so for the purpose of granting a new trial. A key rationale for the limitations the Federal Circuit has set on rolling claim construction—that is, "the potential for surprise and prejudice in a late adjustment to the meaning of claim terms," *Pressure Prod.*, 599 F.3d at 1315-16—is less pertinent in the context of a decision to grant a new trial than in the context of a decision to grant judgment as a matter of law. If the court were to grant judgment as a matter of law under a revised claim construction, it would deprive the parties of "an opportunity to consider the new construction and adjust [their] arguments to account for the change." *Id.* A decision to grant a new trial, however, provides the parties with just such an opportunity—at the new trial.

The Federal Rules of Civil Procedure permit this court to "revise" an interlocutory ruling "at any time before the entry of a judgment adjudicating all the claims and all the parties' rights and liabilities." FED. R. CIV. P. 54(b). Ordinarily, this power should be used sparingly. The "law of the case" doctrine "establishes a presumption that a ruling made at one stage of a lawsuit will be adhered to throughout the suit." *Avitia v. Metropolitan Club of Chicago, Inc.*, 49 F.3d 1219,

1227 (7th Cir. 1995). But the doctrine "is not a straightjacket." *Id.* It is "no more than a presumption, one whose strength varies with the circumstances." *Galvan v. Norberg*, 678 F.3d 581, 587 (7th Cir. 2012) (quoting *Avitia*, 49 F.3d at 1227). A district judge who inherits a proceeding from a member of the same court, for example, "may alter previous rulings if he is convinced they are incorrect." *Best v. Shell Oil Co.*, 107 F.3d 544, 546 (7th Cir. 1997).

After careful consideration of the evidence presented at trial and the arguments made by the parties, the court concludes that Judge Darrah's claim construction of "arm portion" is flawed and must be revisited.⁵ The court agrees with the Defendants that Judge Darrah "effectively read the term out of the claims" and that LoggerHead's subsequent use of the term is "inconsistent with the express statements LoggerHead made during prosecution." (Defs.' Mot.

for JMOL 2.)

Claim 1 of the '579 Patent is representative of the way "arm portion" is used in all the claims at issue.⁶ It claims:

1. An adjustable gripping tool for engaging a workpiece to impart work thereto, the tool comprising:

each at least one gripping element including a body portion adapted for engaging the workpiece, an **arm portion** configured to engage one of said at least one guide and a force transfer element contiguous with the **arm portion**.

('579 Patent col. 8 II. 49–62) (emphasis added). In his *Markman* ruling, Judge Darrah sided with Plaintiffs and construed the term "arm portion" as the "portion of a gripping element(s) configured to engage one of the guides and contiguous with a force transfer element." *LoggerHead Claim Construction Opinion* at *5. This construction, he felt, "g[ave] more meaning

⁵ *Cf. Brengettcy v. Horton,* 423 F.3d 674, 680 (7th Cir. 2005) (suggesting that district judge who "was not presented with 'precisely the same question in precisely the same way'" could reconsider a ruling by her predecessor in the same case).

⁶ The relevant portions of claim 16 in the '579 Patent and claim 1 in the '470 Patent are identical to claim 1 of the '579 Patent. Claim 9 in both the '579 and '470 Patents incorporate claim 1 of their respective patents by reference.

to both 'arm' and 'portion' than the plain and ordinary meaning" or the Defendants' preferred construction. *Id*.

Defendants Sears and Apex had pushed for a more limited construction of the term as meaning the "portion of gripping element that projects from the body portion and to which the force transfer element is connected." *Id.* at *3. The Defendants insisted that their construction was necessary to distinguish the arm and body portions of the claimed gripping element as "separate structures." *Id.* The importance of this distinction cannot be overstated. Throughout the proceedings, the Defendants have claimed that their Max Axess tool cannot literally infringe the Plaintiff's patents because its gripping element does not contain an "arm portion," but rather consists of a "rectangular monolithic block[]." (Defs.' Mot. for JMOL 2.) The Defendants have raised this argument again in their Motion for Judgment as a Matter of Law, urging the court to change or clarify the existing construction to indicate that an "arm portion" must "project (or at least be separately identifiable) from the body portion" to which it is attached. (Defs.' Reply in Supp. of Mot. for JMOL [481] (hereafter "Defs.' Reply Br.") 11.)

This court is inclined to agree. As shown at trial, the adopted construction of "arm portion" blurred the boundaries between what counts as a "body" and what counts as an "arm." LoggerHead's construction was inconsistent with the commonplace meaning of the word "arm" and is inconsistent with what it actually invented. LoggerHead's construction also directly contradicts statements LoggerHead made to distinguish the Bionic Wrench from the earlier Buchanan patent during the prosecution history.

a. LoggerHead's construction is inconsistent with the plain meaning of "arm portion."

The Federal Circuit has long held that "a claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so." *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1305 (Fed. Cir. 2014). "Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented

invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp.,* LP, 616 F.3d 1249, 1254 (Fed. Cir. 2010). LoggerHead's construction, however, effectively eliminated the word "arm" from the patents' claims. Despite Judge Darrah's assertion that LoggerHead's construction "g[ave] more meaning to both 'arm' and 'portion," *LoggerHead Claim Construction Opinion* at *5, the construction clearly read "arm" out entirely and relied solely on the term "portion."

Additionally, in defining the term "portion," the construction simply repeats the words that already follow the word "portion" in the text of the claim. This is puzzling considering that LoggerHead originally proposed that "arm portion" should be given its "plain and ordinary meaning" since the "term is defined by other claim language." *Id.* at *3. Judge Darrah rejected this argument, but then adopted LoggerHead's alternate construction—which is a near-copy of the "other claim language" Judge Darrah had just deemed insufficiently clear. *Id.* at *5. The resulting construction is confusing and redundant—something that becomes apparent by inserting the constructed definition into the place "arm portion" holds in the claims:

each at least one gripping element including a body portion adapted for engaging the workpiece, [a] portion of a gripping element configured to engage one of the guides and contiguous with a force transfer element(s) configured to engage one of said at least one guide and a force transfer element contiguous with the portion of a gripping element configured to engage one of the guides and contiguous with a force transfer element(s).

(Defs.' Mot. for JMOL 22) (quoting '579 Patent col. 8 II. 58–62) (emphasis added). Under this construction, the term "arm portion" provides no independent meaning to the claim. As the Defendants note, a claim construction that "ascribes no meaning to [a] term . . . not already implicit in the rest of the claim" is erroneous. (Defs.' Mot. for JMOL 21) (quoting *Mangosoft, Inc. v. Oracle Corp.*, 525 F.3d 1327, 1330–31 (Fed. Cir. 2008)).

LoggerHead defends its construction by citing the maxim that the "inventor's lexicography governs." (Pl.'s Resp. Br. 21) (quoting *Int'l Test Solutions, Inc. v. Mipox Int'l Corp.,* No. 16-cv-00791-RS, 2017 U.S. Dist. LEXIS 54630 at *9 (N.D. Cal. Apr. 10, 2017)). While this is true, the inventor did not define the term "arm portion"—or any other term—in the patents'

specifications. See Intellicall, Inc. v. Phonometrics, Inc., 952 F.2d 1384, 1388 (Fed. Cir. 1992) ("Where an inventor chooses to be his own lexicographer and to give terms uncommon meanings, he must set out his uncommon definition in some manner within the patent disclosure."). The inventor did, however, choose to include the words "arm" and "body" to modify the respective "portions" of the gripping element configured in different ways. LoggerHead's other argument that the surrounding claim language defines the term is similarly unavailing: LoggerHead uses the surrounding language to eliminate the word "arm" from the greater phrase, not define it. (See PI.'s Resp. Br. 21–22.)

The overall effect of the adopted construction conflates what an "arm portion" *is* with what an "arm portion" *does*. The patents claim a "gripping element including . . . an arm portion configured to engage one of said at least one guide and a force transfer element contiguous with the arm portion." ('579 Patent col. 8 II. 58–62.) By defining an "arm portion" only in terms of how it relates to other parts of the invention, the construction makes it impossible to reasonably identify whether an "arm portion" is accomplishing the claimed tasks, or whether some other non-infringing structure is accomplishing them. As a result, the court agrees with the Defendants that an arm portion and a body portion must "be at a minimum separately identifiable structures." (Defs.' Mot. for JMOL 20) (citing *Engel Industries, Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed. Cir. 1996) (holding that where a patent describes two "portions" in a claim, "they logically cannot be one in the same")).

Both Judge Darrah and LoggerHead place a great deal of importance on the word "portion" at the expense of its modifiers, "arm" and "body." Thus, Judge Darrah felt "it would be improper to read separate structure and projection limitations into the claim." *LoggerHead Claim Construction Opinion* at *4. LoggerHead relies on this point again in its responsive motion, arguing that the Defendants "ignore[] the requirement . . . that the arm and body *portions* are *portions* of the *same structure*—i.e. the gripping element." (Pl.'s Resp. Br. 25) (emphasis in original). By ignoring "arm" in favor of "portion," LoggerHead commits the same

error it accuses the Defendants of committing: rendering a claim term meaningless. A "portion" does indeed mean a "part of a whole," (*Id.*) (quoting *Depuy, Inc. v. Zimmer Holdings, Inc.*, 276 F. Supp. 2d 910, 916–17 (N.D. III. 2003)), but two portions may not be the *same part* within that whole. *See Engel Industries*, 96 F.3d at 1404–05.

The case law cited by LoggerHead recognizes as much. LoggerHead cites to Burns, Morris & Stewart L.P. v. Endura Products, Inc., No. 9:04-CV-23, 2005 U.S. Dist. LEXIS 46839 (E.D. Tex. May 11, 2005), a patent case claiming a "first-" and "second portion" to a "construction component," to support the notion that "[a] portion' means 'a part of the whole." Id. at *23-24. Burns emphasizes, however, that the "first portion" must be "distinguishable from the 'second portion." Id. at 24. LoggerHead looks past this, and also conveniently ignores the preceding sentence explaining that the two terms "denote that there are separate portions." Id. (emphasis added). Judge Darrah and LoggerHead both also rely on a Federal Circuit case involving a patent for eyeglasses to claim that "use of the term 'portion' does not itself require that the [gripping element] contain [another] structure." LoggerHead Claim Construction Opinion at *3 (quoting Aspex Eyewear, Inc. v. Altair Eyewear, Inc., 288 Fed. Appx. 697, 702 (Fed. Cir. 2008)). The selective quotation aside, Aspex Eyewear does not support LoggerHead's position. In that case, the Federal Circuit held that a patent claim mentioning only one portion (a "middle bridge portion" in a pair of glasses) does not automatically imply the presence of additional, unspecified portions (i.e. rims around the lenses). Id. LoggerHead's patents already mention two distinct portions, so Aspex Eyewear's logic does not apply. LoggerHead chose to include the words "arm" and "body" to modify the different "portions" of its gripping element. This court must give meaning to all terms in the claim. Here, that requires modifying the construction to state that an "arm portion" must be an identifiable structure that projects from the body portion.⁷

⁷ The court does not agree with the latter half of the Defendants' construction: that the arm portion also be the portion "to which the force transfer element is connected." (Def.s' Mot. for

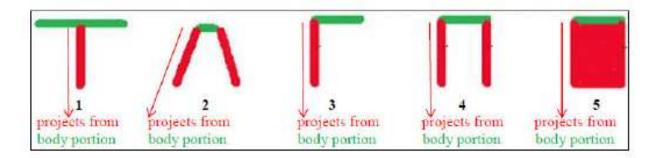
LoggerHead next argues that looking to dictionary definitions to establish the meaning of a claim term in this context would be an improper reliance on extrinsic evidence. (Pl.'s Resp. Br. 24.) This is an incorrect statement of the law of claim construction. The Federal Circuit instructs that identifying the plain and ordinary meaning of a term often "involves little more than the application of the widely accepted meaning of commonly understood words." Phillips, 415 F.3d at 1314. "In such circumstances, general purpose dictionaries may be helpful." Id. Defendants' citation to the dictionary definition of the word "arm" is not an attempt to supplant intrinsic evidence with extrinsic evidence of a technical or specialized nature, but a way of recognizing the ordinary meaning of a commonplace term. See, e.g., Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1346–47 (Fed. Cir. 2003) (relying on the Merriam-Webster definition of the term "isolate" to establish the plain meaning over the defendant's attempt to narrow the definition with specialized medical dictionaries). This court concludes it was clear error to eliminate the word "arm" from the claims, and a further error to ignore the essential characteristics that comprise an arm. There is no reason to suspect that a person of ordinary skill in the art ("POSITA") reading these patents would put aside his understanding of an "arm" as being an identifiable appendage attached to an axis point or a larger body.⁸ See Arm, MERRIAM-WEBSTER COLLEGIATE DICTIONARY (10th ed. 1997).

JMOL 17.) The patents' claims state that the arm portion must be "contiguous with" the force transfer element. ('579 Patent col. 8 l. 61). "[C]ontiguous and connected are not synonymous." (Pl.'s Resp. Br. 22.)

⁸ A brief survey of other cases construing the word "arm" or "arm portion" reinforces this position. This court has found no case in which a claimed "arm" or "arm portion" does not, in some way, have to resemble what people would universally recognize as an "arm" in the common usage of the term. *See, e.g., Mass Engineered Design, Inc. v. Ergotron, Inc.,* No. 206-cv-272, 2008 WL 3483906, at *2 (E.D. Texas Aug. 7, 2008) (construing the phrase "arm assembly" as "a structure having one or more constituent parts *connected to and projecting from the support means*") (emphasis added); *LTJ Enterprises, Inc. v. Custom Marketing Co., LLC,* No. 13-cv-2224 ADM/LIB, 2015 WL 3607746, at *3-4 (D. Minn. June 8, 2015) (giving "arm" its plain and ordinary meaning); *GoPro, Inc. v. 360Heros, Inc.,* No. 16-cv-01944-SI, 2017 WL 2617906, at *4 (N.D. Cal. June 16, 2017) (refusing to adopt a construction for the terms "support arm" and "support body" which effectively eliminated the words "arm" and "body" from the terms and would have allowed any structure facilitating a similar task to fall within the claims' scope).

LoggerHead counters that an "arm portion" may take many forms. (PI.'s Resp. Br. 35.) This court agrees. Indeed, the patents themselves cover multiple variations of the gripping element's "arm portion." (*Id.* at 31–32.) For example, claim 5 of the '579 Patent, which is not at issue in this case, states that "the arm portion of the gripping elements further includes a pair of arms disposed at opposite ends of the body portion such that the gripping elements are substantially U-shaped." ('579 Patent col. 9 II. 57–60.) This implies that an arm portion could have just a single arm, or a pair of arms arranged in a manner not "substantially U-shaped." The specification of the '470 Patent adds that "[t]he gripping elements themselves may be varied in size, shape, surface finish, body configuration, arm configuration, or quantity." ('470 Patent col. 18 II. 14-16.) None of this intrinsic evidence, however, supports the notion that a gripping element said to include both arm and body portions may nevertheless encompass gripping elements without identifiable arms. "Arms," by any common understanding, project from the body to which they are attached.

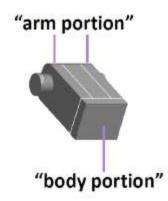
LoggerHead appears to recognize this fact in its responsive brief, presenting the following diagram to illustrate its view of the scope of the term "arm portion" in the patents-in-suit:



(PI's Resp. Br. 35) (presenting PTX. A at Slide 25 with images 4 and 5 added). LoggerHead argues, and the Defendants concede, that images 1, 2, and 3 show "arm portion(s) that project from the body portion." (*Id.*) Likewise with image 4—which closely resembles the gripping element illustrated in the specification and present in the company's Bionic Wrench. Given this

baseline, LoggerHead then attempts to reason by analogy that, under either party's construction of "arm portion," image 5 must also be viewed as containing both an arm and body portion since it "is merely image 4 with the open space between the admittedly infringing arm portions filled-in." (*Id.*) This analogy goes too far. A human being can have two arms, or one arm, or no arms. But in no situation would an outside observer say that a limb-less man nevertheless has an "arm" assuming you consider his torso. They must be different structures. If image 5 is indeed "merely image 4 with the open space ... filled-in," a POSITA would almost certainly refer to the entire structure as one body, not a body with arms. Under LoggerHead's view, there is no way to distinguish the "arm portion" from the "body portion" since anyone could arbitrarily draw a line on a uniform mass and claim that it actually contains multiple structures "with the open space between [them] filled-in." (*Id.*)

Drawing arbitrary lines is exactly what LoggerHead's expert did at trial. This court is aware that modifying a claim's construction is not common at this point in litigation, and it does not do so lightly. However, Judge Darrah's construction proved an unworkable standard. At trial, LoggerHead's expert witness, Dr. Jonathan Cagan, introduced the following exhibit to identify what he believed to be the "arm portion" of the Defendants' gripping element:



(Defs.' Mot. for JMOL 32) (reproducing Cagan Trial Demonstrative 41). The dotted lines are not present on the actual Max Axess gripping element, but were added for the purposes of Dr. Cagan's expert testimony. While these lines may in fact identify the "portion of a gripping element(s) configured to engage one of the guides and contiguous with a force transfer element" (the "arm portion") and the "portion of a gripping element(s) adapted for engaging a workpiece" (the "body portion"), *LoggerHead Claim Construction Opinion* at *5, they lack any connection to identifiable structures. Any future expert could draw these dotted lines differently with little regard for the structural realities of a similar hand tool's gripping element. While this interpretation may appear harsh—even dispositive—on the question of infringement, the plain and ordinary meaning of "arm portion" requires that the Plaintiff identifies a portion of a competing gripping element that projects from the body portion, not merely any arbitrary subdivision "configured to engage one of the guides and contiguous with a force transfer element."

The court's job is to define the metes and bounds of a patent's claims. This not only aids in litigation, but ensures that competitors may "rely on [a patent's] representations when determining a course of lawful conduct, such as launching a new product or designing-around a patented invention." *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013). If the patent lacks certainty, even skilled product designers will be unable to avoid the scope of infringement liability. As stated, the existing construction defines the arm and body portions only in terms of their function. But the patent clearly states that two different structures must accomplish these tasks. The existing construction simply invites future rounds of litigation with other parties. This court will not abdicate its role and open the door for expert witnesses to redefine a patent's scope on an *ad hoc* basis.

b. LoggerHead's construction is inconsistent with the patents' prosecution history.

The Defendants also argue, as they did during the *Markman* hearing, that the prosecution history of the '570 and '470 Patents rules out the function-based construction of "arm portion." The court's error was compounded during trial, Defendants urge, where LoggerHead "effectively recaptured the same basic gripping element structure that it

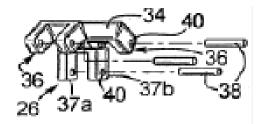
distinguished to obtain the '470 Patent in the first place." (Defs.' Mot. for JMOL 25.) "The purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution." *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (quoting *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 (Fed. Cir. 1988)). The doctrine of prosecution history disclaimer "ensures that claims are not construed one way in order to obtain their allowance and in a different way against accused infringers." *Id.*

Judge Darrah declined to invoke prosecution history disclaimer in the original *Markman* hearing. He concluded that LoggerHead's effort to differentiate its patent applications from the Buchanan Patent was not "an unambiguous disavowal that clearly and unmistakably disclaims the plain meaning of a disputed claim term." *LoggerHead Claim Construction Opinion* at *5 (quoting *Biogen Idec*, 713 F.3d at 1098 (Plager, J. dissenting)). Based on the correspondence between LoggerHead and PTO, however, it is difficult to see how LoggerHead's statements as to the scope of its patents were anything but clear and unmistakable.

Responding to the Examiner's rejection of the '470 Patent on the basis that the Buchanan Patent's "plunger" anticipated LoggerHead's gripping element, LoggerHead reproduced the following image comparing the two structures:



Buchanan's Plunger



Applicant's Gripping Element

(PTX 4 at 1836.) The Examiner had stated that the Buchanan Patent disclosed the claimed gripping element by featuring a "body portion (24) adapted for engaging the work piece, an arm portion configured to engage one at least one guide [adjacent to crimping portion (25)] and a

force transfer element (26) configured with the arm portion." (*Id.* at 1836–37.) LoggerHead responded that there was no structure adjacent to the crimping portion aside from the force transfer element. (*Id.* at 1837.) LoggerHead continued:

Applicant respectfully submits that Buchanan's gripping element does not contain an arm portion. Instead, the force transfer element (i.e., pin 26) of Buchanan is directly attached to the body portion. In contrast, as shown in the partial reproduction of Applicant's FIG. 1 above, the claimed subject matter requires, among other things, a gripping element 26 that includes a body portion 34, a force transfer element 38, and an arm portion 36. Furthermore, claim 1, for

example, requires that the "force transfer element [is] contiguous with the arm portion." The force transfer element 26 of Buchanan, as best understood, however, is contiguous with the body, not an arm portion because Buchanan does not teach or suggest an arm portion. Further, claim 1 of the pending application recites that the arm portion is

Further, claim 1 of the pending application recites that the arm portion is "configured to engage one said at least one guide." As can be appreciated by one of ordinary skill in the art, the guide (19) [not shown above] engages the body portion (24) of the gripping element (26) and no other structure. This further demonstrates that the gripping element of Buchanan does not disclose the same structure as claim 1, namely, a body portion, an arm portion, and a force transfer element.

(*Id.*) In addition to repeatedly confirming that the "arm portion" needed to be an actual "structure," this passage clearly rejects the core features of the construction for which LoggerHead now argues. As LoggerHead noted in its submission to the patent examiner, any POSITA would recognize that the Buchanan plunger has both a "portion" contiguous to the force transfer element (the pin), and a "portion" configured to engage the guides. But this "portion," LoggerHead insisted, was the *body*, not an arm. (*Id.*) LoggerHead cannot now pretend that an "arm portion" includes any subpart of a gripping element that functions in those ways. As summarized by the Defendants: "LoggerHead's statements to the PTO make no sense unless 'arm portion' has some structural meaning—otherwise, Buchanan [] would have arm portions."

(Defs.' Reply Br. 15.)

Furthermore, even if the elements of prosecution history disclaimer are not satisfied here, LoggerHead's statements to the PTO still support the Defendants' position. Prosecution history disclaimer applies to narrow the meaning of a claim and "overcome[] the heavy presumption that claim terms carry their full ordinary and customary meaning." *Biogen Idec*, 713 F.3d at 1095 (internal citation and quotation marks omitted). Here, LoggerHead's original statements arguably *reinforced* the plain meaning of "arm portion" as an identifiable projection. Only later during the course of litigation did LoggerHead disclaim the plain meaning in favor of a more expansive view. Judge Darrah stated that LoggerHead "did not directly disclaim nonprojecting 'arm portion[s]' during prosecution," *LoggerHead Claim Construction Opinion* at *4, but LoggerHead did not need to do so in order to inform the term's meaning. Arms project. LoggerHead's statements are most accurately viewed as additional evidence supporting the plain and ordinary meaning, not as a disclaimer of that meaning.

Admittedly, "the examiner did not require a specific amendment to reflect separate arm and body structures." *Id.* at *3. This does not obviously militate in favor of LoggerHead's position, however. The Federal Circuit has long held that clarifications made during a patent's prosecution "can take the form of either amendment or argument." *Biogen Idec*, 713 F.3d at 1095; *see also Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 979 (Fed. Cir. 1999). The Examiner accepted LoggerHead's explanation that the Buchanan Patent lacked an "arm portion," so there was no need for an amendment. LoggerHead contends that it was only responding to the Examiner's categorization of the images and "pointing out that the Examiner's chosen identification of plunger 24 as the body portion mean[t] there cannot be an arm portion." (Pl.'s Resp. Br. 28.) This is simply untrue. The passage reproduced above shows a clear differentiation between the Buchanan Patent and the '470 Patent on structural grounds, because LoggerHead could not do so with a purely functional interpretation of its gripping element.

"Disclaimer or not . . . the prosecution history establishes that the plain meaning of the 'arm portion' limitation must have some structural requirement, and cannot be met by a structure-less, function-only definition." (Defs.' Reply Br. 15.) Contrary to LoggerHead's assertion at the *Markman* hearing, its claimed arm and body portions are not simply "labels for

easier reference," *LoggerHead Claim Construction Opinion* at *3—they are at the heart of what differentiates the '579 and '470 Patents from the prior art. *See Bicon, Inc. v. The Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("Allowing a patentee to argue that physical structures and characteristics specifically described in a claim are merely superfluous would render the scope of the patent ambiguous, leaving examiners and the public to guess about which claim language the drafter deems necessary to his claimed invention.")

In accordance with the above analysis, the court finds that the term "arm portion," as used in the '579 and '470 Patents, must also be an identifiable structure that projects from the body portion of the gripping element. This construction best provides meaning to both words in the term, and is consistent with LoggerHead's statements to the PTO.

III. New trial

Defendants have not moved for a new trial on the issue of infringement. But Rule 59 of the Federal Rules of Civil Procedure gives this court the authority to order a new trial on its own initiative "for any reason that would justify granting one on a party's motion." FED. R. CIV. P. 59(d).⁹ "An erroneous instruction regarding claim interpretation that affects the jury's decision on infringement is grounds for a new trial." *Ecolab, Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1373 (Fed. Cir. 2002). The qualifying phrase "affects the jury's decision on infringement" is important. Not all erroneous instructions on claim interpretation provide grounds for a new trial. *See Avago Techs. Gen. IP PTE Ltd. v. Elan Microelectronics Corp.*, No. C 04-05385 JW, 2009 WL 8612367, at *4 (N.D. Cal. Sept. 23, 2009). "[T]o warrant a new trial," the erroneous instruction must "in fact [have been] prejudicial. When the error in a jury instruction 'could not have changed the result, the erroneous instruction is harmless." *Ecolab*, 285 F.3d at 1374 (quoting *Environ. Prods., Inc. v. Furon Co.*, 215 F.3d 1261, 1266-67 (Fed. Cir. 2000)).

⁹ The court has not entered judgment on the jury's verdict, so the 28-day limitation period in Rule 59(d) has not lapsed. *See Mitchell v. Dist. Ct. of United States for S. Dist. of Cal.*, 270 F.2d 70, 71 (9th Cir. 1959) (rejecting argument that Rule 59's limitations period "ran from the date the verdict was filed and entered; that this must be treated as an entry of judgment").

In this case, the court instructed the jury that they "must" define "arm portion" as "[p]ortion of a gripping element(s) configured to engage one of the guides and contiguous with a force transfer element." (Final Jury Instr. [449] 27.) This instruction was erroneous because the claim construction on which it was based was erroneous.

The erroneous instruction could well have changed the result of the jury's decision on infringement. Multiple witnesses testified at trial that the Max Axess gripping element is, variously, "a block with a pin through it" (Tr. 1032:4-6); "a simple block with a pin – a pin through it" (*Id.* at 1063:24-25); and "a solid, rectangular block with a pin driven through it." (*Id.* at 1187:16-20.) Professor Frank Fronczak testified that a person of ordinary skill in the art "certainly" would not recognize anything in the Max Axess gripping element "that would be understood to be an arm portion versus a body portion. They would not parse it into portions." (*Id.* at 1188:1-7.) John Owen similarly testified that the Max Axess gripping element does not "include all three requirements of the claims in this case, a force transfer element, arm portion, and the body portion." (*Id.* at 1033:23-1034:3.) A reasonable jury could have found this testimony persuasive. It could have concluded that the Max Axess gripping element does not infringe because it does not include an identifiable structure that projects from the body portion of the gripping element. The erroneous jury instruction, therefore, was not harmless. The court grants a new trial because prejudicial legal error affected the jury's decision on infringement.

CONCLUSION

Defendant's Motion for Judgment as a Matter of Law [456] is denied. The court grants a new trial because the court's erroneous jury instruction was prejudicial legal error. Defendants' Motion for Judgment as a Matter of Law on Damages, for Remittitur, or for a New Trial on Damages [455] is denied as moot. Plaintiff's Motions for Permanent Injunction [453], for Entry of Judgment, Award of Prejudgment and Postjudgment Interest and Costs, and Identification of the Applicable Schedule for LoggerHead's Motion for Attorney's Fees and Nontaxable Expenses [457], and for Enhanced Damages [461] are similarly denied as moot.

ENTER:

Roberta Rachmeye-

Date: December 22, 2017

REBECCA R. PALLMEYER United States District Judge