

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**NAZIR KHAN,**  
*Plaintiff-Appellant*

**IFTIKHAR KHAN,**  
*Plaintiff*

v.

**MERIT MEDICAL SYSTEMS, INC.,**  
*Defendant-Appellee*

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2023-2329

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Appeal from the United States District Court for the District of Utah in No. 2:21-cv-00337-HCN-CMR, Judge Howard C. Nielson, Jr.

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Decided: July 16, 2024

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NAZIR KHAN, Burr Ridge, IL, pro se.

BRENT P. LORIMER, Lorimer Ip, PLLC, Midvale, UT, for defendant-appellee. Also represented by DAVID R. TODD, THOMAS R. VUKSINICK, Workman Nydegger, Salt Lake City, UT.

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Before MOORE, *Chief Judge*, LOURIE and STARK, *Circuit Judges*.

PER CURIAM.

Nazir Khan, owner of a patent directed to an arteriovenous shunt with several parts, filed a patent infringement suit against Merit Medical Systems, Inc. (“Merit Medical”) in the United States District Court for the District of Utah. Merit Medical counterclaimed for a declaratory judgment of non-infringement. The district court granted judgment for Merit Medical and against Khan. Khan appeals.<sup>1</sup> We affirm.

I

Mr. Khan owns U.S. Patent No. 8,747,344 (the “344 patent”). The ’344 patent is directed to a shunt used for hemodialysis and methods for using that shunt. Claim 13, the sole claim at issue here, recites in pertinent part (with emphasis added):

13. A system for performing hemodialysis on a patient comprising:
  - a. an arteriovenous shunt means comprising:
    - i. an arterial graft means comprising a body, a lead end and a terminal end, . . . ; and
    - ii. a single lumen venous outflow catheter means comprising an

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<sup>1</sup> The complaint was filed by Nazir Khan along with Iftikhar Khan. We granted Iftikhar Khan’s motion to be removed from the appeal. Our references throughout to “Khan,” therefore, are to Nazir Khan.

intake end and depositing end . . . ;  
and

iii. a *cuff means* comprising an inlet  
and an outlet, wherein:

1. said cuff is *disposed about*  
said terminal end of said subcu-  
taneous graft; and

2. said cuff is *disposed about*  
said intake end of said venous  
outflow catheter; and

3. wherein the cuff provides a se-  
cure fit for said arterial graft  
first diameter and said venous  
outflow catheter second diame-  
ter; and

b. a hemodialysis apparatus.

U.S. Patent No. 8,282,591 (the “591 patent”) is the par-  
ent to the ’344 patent. Initially, the claims contained in the  
application that eventually yielded the ’591 patent re-  
quired the “inlet” and “outlet” of a “cuff” to be “connected  
to” a graft and a catheter, respectively. *See* S. App’x 424-  
27.<sup>2</sup> These claims were rejected by a patent examiner as  
obvious over U.S. Patent No. 6,102,884 (“Squitieri”), which  
disclosed a device “connected to” a graft and a catheter. In  
response to the rejection, Khan proposed amended claims,  
which required that in addition to being “connected to” a  
graft and a catheter, the cuff also be “disposed about” the  
ends of the graft and catheter. After the examiner rejected  
these proposed amended claims, Khan appealed to the  
Board of Patent Appeals and Interferences (“Board”),

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<sup>2</sup> We refer to the appendix attached to Khan’s Open-  
ing Brief as “App’x” and to the supplemental appendix filed  
by Merit Medical as “S. App’x.”

which found Khan's distinction of Squitieri persuasive, concluding that the cuff of Khan's amended claims "encircles" and "wraps around" the graft and catheter while Squitieri's cuff was disposed "within" the graft and catheter. S. App'x 468-74, 705-06. The '591 patent issued with the "disposed about" limitation in 2012.

The '344 patent issued in 2014. S. App'x 53. Similar to the prosecution leading to issuance of the '591 patent, Khan originally proposed claims in which the cuff was broadly permitted to be "connected to" the graft and the catheter. After the claims of the '591 patent were approved, Khan amended his proposed claims to require a "cuff means" instead of a "cuff". After receiving a rejection based on Squitieri, Khan further amended the proposed claims to require that the cuff means be "disposed about" the graft and catheter. Only after this amendment were the claims allowed.

Subsequently, Khan filed a reissue application for the '591 parent patent. In doing so, he sought claims that would have eliminated the "disposed about" limitation, explaining that he needed these broader claims in order to pursue infringement cases against companies, including Merit Medical, "who cannot be sued without [claims] having a connector with broadened scope so that [the accused] connector can be [found to infringe if it is] used in a disposed or non-disposed way." S. App'x 374; *see also* S. App'x 372-73 ("The patent owner cannot literally sue the infringer unless the cuff connector is broadened in scope to connect the graft and the catheter in different ways, disposed or non-disposed."). The examiner rejected the reissue application, which the Board and then this court affirmed. *See In re Khan*, 722 F. App'x 1038, 1041 (Fed. Cir. 2018).

Merit Medical markets the accused product, the HeRO Graft, a shunt used for hemodialysis. It is undisputed that, as even Khan has described it, the HeRO Graft has a

connector that is “disposed within” or “in” the ends of the graft and catheter. S. App’x 70. This is in contrast to claim 13 of the ’344 patent, which requires a connector “disposed about” the graft and catheter.

Khan’s complaint alleged that the HeRO Graft infringes the ’334 patent literally and under the doctrine of equivalents, directly and indirectly, and willfully. The district court granted Merit Medical’s motion for summary judgment of non-infringement, as well as its counterclaim for declaratory judgment of non-infringement, after concluding that no reasonable juror could find that the accused HeRO Graft met the “disposed about” limitation, under any of Khan’s theories of infringement.

After we dismissed a premature appeal by Khan, *see Khan v. Merit Medical Systems, Inc.*, No. 23-1054 (Fed. Cir. Dec. 29, 2022), the district court entered final judgment of non-infringement and Khan timely appealed.<sup>3</sup>

## II

We review a grant of summary judgment applying the law of the regional circuit, here the Tenth Circuit, which reviews a grant of summary judgment de novo. *See D Three Enters., LLC v. SunModo Corp.*, 890 F.3d 1042, 1046 (Fed. Cir. 2018). Summary judgment is appropriate if the movant “shows that there is no genuine dispute as to any

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<sup>3</sup> The district court had jurisdiction under 28 U.S.C. §§ 1331 and 1338(a). We have jurisdiction under 28 U.S.C. § 1295(a)(1). However, to the extent Khan is challenging the district court’s order requiring him to pay Merit Medical’s attorney fees, pursuant to 35 U.S.C. § 285, we lack jurisdiction, as the district court did not enter a final order with respect to attorney fees. *See Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC*, 927 F.3d 1292, 1303-06 (Fed. Cir. 2019).

material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a).

Issues unique to patent law, such as claim construction and infringement, are reviewed according to Federal Circuit law. See *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc.*, 759 F.3d 1285, 1295 (Fed. Cir. 2014). Infringement generally requires a factual determination as to whether all of the limitations of a claim, properly construed, are met by an accused device. See *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1339 (Fed. Cir. 2016) (“Infringement, whether literal or under the doctrine of equivalents, is a question of fact.”). “As such, it is amenable to summary judgment where, *inter alia*, no reasonable fact finder could find infringement.” *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 149 F.3d 1309, 1315 (Fed. Cir. 1998). With respect to “questions of claim construction, including whether claim language invokes 35 U.S.C. § 112[(f)], the district court’s determinations based on evidence intrinsic to the patent as well as its ultimate interpretations of the patent claims[,] are legal questions that we review de novo.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015). However, “[t]o the extent the district court, in construing the claims, makes underlying findings of fact based on extrinsic evidence, we review such findings of fact for clear error.” *Id.*

### III

Khan’s arguments on appeal are somewhat confusing. What is clear, however, is that the district court committed no error in granting summary judgment to Merit Medical determining that its accused HeRO Graft product does not infringe claim 13 of the ’344 patent under any theory of infringement. We agree with Merit Medical and the district court that there is no genuine dispute of material fact and summary judgment of non-infringement is warranted.

Khan cannot prove literal infringement. Claim 13 requires a “cuff means” “disposed about” the graft and the

catheter. Khan does not challenge the district court's (correct) construction that "disposed about" requires a cuff means that is "wrapped around, encircles, and covers the *outside* of the outlet end of an arterial graft and the inlet end of a venous outflow catheter." App'x 4. It is further undisputed that the HeRO Graft has a cuff that is "disposed within" the graft and catheter and, therefore, is not literally "disposed about" the graft and catheter. *See* S. App'x 70.

These realities are not dispositive, Khan contends, because he also asserts infringement under the doctrine of equivalents. Under the doctrine of equivalents, "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997). Among the several fatal deficiencies to Khan's contention is that he, during prosecution of both the '344 patent and the parent '591 patent, amended his proposed claims and made arguments disclaiming cuffs that are connected within the graft and catheter, as in *Squitieri*.<sup>4</sup> A patentee may not rely on the doctrine of equivalents to assert infringement against a device that falls within the scope of what the patentee disclaimed during prosecution. *See Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1378-79 (Fed. Cir. 1998) ("[B]y distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not

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<sup>4</sup> Khan's contention that he did not amend his claims during prosecution is plainly belied by the prosecution history. *See* S. App'x 468-74, 505-14, 516-21; *see also* App'x 20 ("Plaintiff[s] claim that [he] did not amend Claim 13 to overcome *Squitieri* by adding the 'disposed about' limitation is false.").

cover.”) (internal quotation marks omitted). Moreover, Khan himself repeatedly explained during prosecution that he could not assert claim 13 of the '344 patent against a device, including specifically the HeRO Graft, in which the cuff means was “disposed within” the graft and catheter. S. App'x 373-74, 348. His clear and unambiguous disclaimer of claim scope estops him from asserting that embodiments – such as the HeRO Graft and Squitieri – infringe. *See Augustine Med., Inc. v. Gaymar Indus., Inc.*, 181 F.3d 1291, 1299 (Fed. Cir. 1999) (“If sufficient to evince a clear and unmistakable surrender of subject matter, arguments made during prosecution may . . . estop an applicant from recapturing that surrendered matter under the doctrine of equivalents.”) (internal quotation marks omitted).

Khan also insists that claim 13 is a means-plus-function claim, governed by 35 U.S.C. § 112(f). We need not decide whether “cuff means” is a means-plus-function element because, as Merit Medical correctly points out, “even if ‘cuff means’ is a means-plus-function element, satisfaction of that element would not somehow make up for the absence of the ‘disposed about limitation.’” Response Br. at 32. To raise a triable issue of infringement, Khan must produce sufficient evidence from which a reasonable juror could find that all of the elements of claim 13 are present in the HeRO Graft. *See Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1268 (Fed. Cir. 1999) (“Thus a claim limitation written in § 112[(f)] form, like all claim limitations, must be met, literally or equivalently, for infringement to lie.”). He has failed to adduce such evidence with respect to the “disposed about” limitation, so he cannot prove infringement even if all of the other limitations of his claim are present in the accused device.

Infringement is an element of induced, contributory, and willful infringement. *See Novartis Pharms. Corp. v. Eon Labs Mfg., Inc.*, 363 F.3d 1306, 1308 (Fed. Cir. 2004); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 579 U.S. 93, 94 (2016).



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Therefore, Khan's inability to prove infringement likewise dooms his other claims.

We have considered Mr. Khan's other arguments and find them unpersuasive. We affirm the district court's grant of Merit Medical's motion for summary judgment of non-infringement.

**AFFIRMED**