UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK
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EDGE SYSTEMS LLC,

Plaintiff,

-against-

CARTESSA AESTHETICS, LLC,

Defendant.
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U.S. DISTRICT COURT
EASTERN DISTRICT OF NEW YORK
LONG ISLAND OFFICE

MEMORANDUM AND ORDER

20-CV-6082 (GRB)(ST)

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GARY R. BROWN, United States District Judge:

In this action, plaintiff Edge Systems LLC ("Edge") seeks recovery for purported infringement of several U.S. Patents against defendant Cartessa Aesthetics, LLC ("Cartessa"), all relating to claimed inventions and improvements in systems for treating skin. Both plaintiff and

Sinclair et al v. HydraFacial
IPR2025-00145
HydraFacial Ex. 2165

defendant produce and market competing skincare treatment machines known as "hydradermabrasion devices." A previous opinion issued findings following an expedited *Markman* hearing to resolve claim construction issues as to certain disputed terms and denied a motion to strike Cartessa's affirmative defense of unclean hands. *Edge Sys. LLC v. Cartessa Aesthetics, LLC*, 571 F. Supp. 3d 13, 16 (E.D.N.Y. 2021) ("*Edge I*"). Familiarity with that opinion is assumed.

The parties now move for summary judgment relating to Edge's U.S. Patent No. 9,550,052 (the "'052 patent"), as follows: Edge's motion seeks judgment as to the validity of Claim 1 of the '052 patent, as to which Cartessa asserts invalidity based on U.S. Patent No. 6,162,232 (the "232" or "Shadduck patent"), also held by Edge. Moreover, both parties seek summary judgment as to whether Cartessa's device, known as the "Skinwave," infringes Claim 1 of the '052 patent. While discovery is complete and the parties ostensibly agree that there are no undisputed issues of fact as to these questions, there are nuances presented that require examination.

Procedural History

The procedural history of this matter is set forth in *Edge I* and is incorporated by reference herein. Thereafter, the parties commenced discovery and motion practice. In June 2022, the parties filed letters seeking a pre-motion conference concerning the pending motions as well as Edge's motion for summary judgment as to Cartessa's amended affirmative defense of unclean hands. Docket Entry ("DE") 65-69. At the conference, the Court deemed that motion made and, following argument, granted summary judgment as to the affirmative defense. DE 85; DE 86 at 48-52. Counsel filed motion papers regarding the summary judgment motions concerning invalidity and non-infringement. DE 88-96.

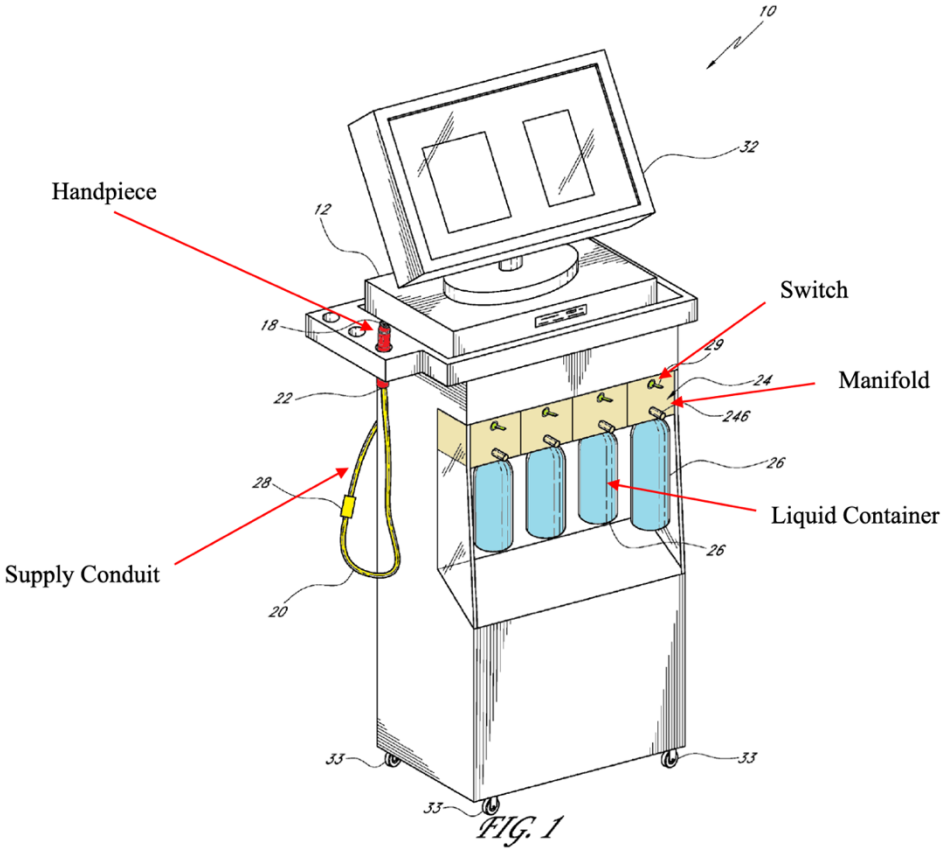
This opinion follows.

Relevant Undisputed Facts

a. Invalidity

Edge seeks a declaration of "no invalidity" of the '052 patent, contending that it is beyond dispute that the invention described therein was not anticipated by the Shadduck patent, asserting the following facts:

The invention described in the '052 patent encompasses "skin rejuvenation systems with a handpiece that applies treatment fluids to the skin while simultaneously suctioning away waste from the skin surface." DE 66-1 ¶ 8. The patent includes an illustration showing "four fluid containers . . . containing treatment fluid that is delivered to the handpiece via a supply conduit" and "a waste conduit for conveying waste – suctioned from the patient's skin – to a waste container inside the console." *Id.* Figure 1 of the patent illustrates the device as follows:



Id. Importantly, the patent describes "a manifold system that holds containers containing treatment fluids and/or antimicrobial agents." *Id*. at ¶ 9; DE 76-1 ¶ 9. In fact, Claim 1 of the '052 patent expressly and repeatedly explains that the claimed invention consists of "a console including a manifold, the manifold being in fluid communication with a first fluid container and at least a second fluid container," and "a supply conduit placing the manifold of the console in fluid communication with the handpiece assembly . . . wherein the manifold is configured to control a flow of treatment material from the first fluid container and at least the second fluid container." DE 66-1 ¶ 11 (quoting Claim 1 of the '052 patent).

Edge distinguishes the '052 patent from the Shadduck patent on the grounds of the "manifold limitation," asserting:

> The device in the '232 Patent does not have a "manifold" as required by Claim 1 of the '052 Patent. The '232 Patent does not mention or disclose a "manifold" or describe any component as having multiple inlets and one outlet, or multiple outlets and one inlet.

Id. ¶ 58. The '232 patent does not use the word manifold. *Id.*

The '232 patent does discuss mixing certain products, noting, for example, that "the 2nd delivery means introduces the coolant fluid plus a crystalline agent into chamber to intermix with the high-pressure gas streams provided by the 1st delivery means, to thereafter impact the Skin Surface to abrade away superficial layers." U.S. Patent No. 6,162,232 col. 9 l. 40-45 (filed Apr. 19, 1999). Even assuming, *arguendo*, that a person of ordinary skill in the art (POSITA) could infer a manifold from such this language, Edge further argues that "the '232 patent does not disclose a device that allows the user to select treatment liquid from multiple containers as Claim 1 requires." DE 88-1 at 2. And clearly it does not: the focus of the '232 patent centers on the abrasion of skin via a solid crystalline agent propelled against the skin using a gas stream or liquid.

Defendant attempts to disagree, relying on equivocal testimony by its own expert suggesting "somewhere there must be a place where these treatment media are being combined. Hence, Shadduck has a manifold." DE 76-1 ¶ 67. In other words, defendant argues that the '232 patent inferentially "teaches a manifold," without using the word. *Id.* ¶ 58. Cartessa identifies the area defined by the highlighted box added to Fig. 2A of the Shadduck patent – which does nothing more than showcase a schematic line between two sources, as the component in which "the fluid flow from different containers 30 and 40 meet, intermix, and travel out a single conduit." *Id.* ¶ 67. Thus, in the context of invalidity, Cartessa seems to argue that any space where fluids combine constitutes a manifold. *Id.* By contrast, in the context of infringement, Cartessa vehemently argues that a manifold represents "a well-known device in engineering contexts" with "an ability to combine fluids from multiple sources into one [ ] or the ability to divide fluids from a single source into multiple conduits." *Id.* ¶ 24. In fact, defendant goes to great lengths to demonstrate that a manifold constitutes much more than "a closed space or pipe with one inlet and several outlets, or with one outlet and several inlets, for the passage of liquids or gasses." *Id.* ¶ 22. And defendant persuasively argues that a hose splitter – an item highly akin to the theoretical "manifold" in the Shadduck patent – is positively *not* a manifold. *Id.*

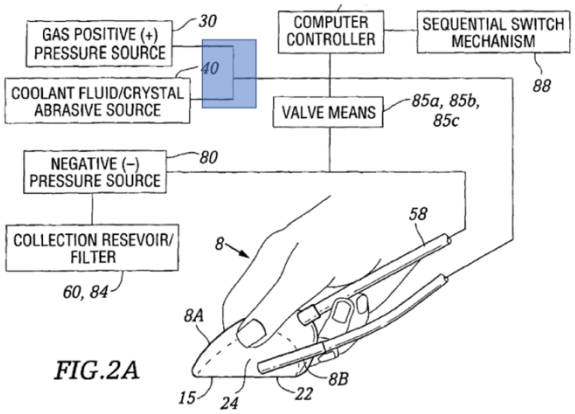


FIG.2A

Thus, on the question of invalidity, plaintiff convincingly distinguishes the prior art taught in the Shadduck patent, mainly relying upon the expression of a manifold and the requirement of multiple selectable fluids. Defendant tries to conjure a manifold in the Shadduck patent

interstitially, but simply has no evidence upon which base such a conclusion. As the analysis moves to infringement, however, the proverbial shoe quickly moves to the other foot.

b. Infringement and the Mystery of the White Box

Paradoxically, the question of whether the defendant's "Skinwave" device infringes Claim 1 of the '052 patent turns on whether it deploys a manifold. Plaintiff attempts to assert that this question is undisputed by referring to:

> a white, box-shaped component inside the Accused Device. The component has (i) four inlets connected to each of the four fluid containers by tubing and (ii) an outlet that connects to the supply conduit that provides fluid to the handpiece.

DE 66-1 ¶ 23. A photograph accompanies this description:

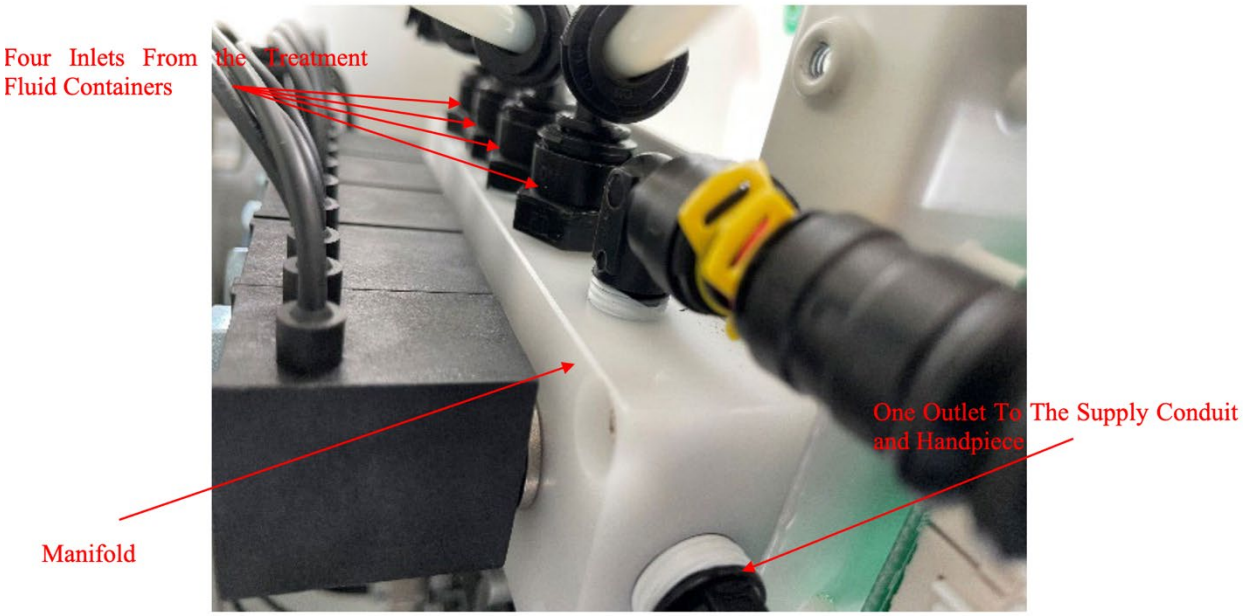


Figure 3

Id. If, in fact, the white box constitutes a "manifold," infringement could present a significant problem. However, far from being undisputed, defendant vehemently contests this assertion. Cartessa responds, without meaningful disputation by Edge, that plaintiff's expert failed to investigate whether the object in question is a manifold, remained unaware of its internal structure

and composition, did not detach the device from the console, did no destructive testing and could not remember even touching the device. DE 76-1 ¶ 23. As a result, plaintiff's expert could only "speculate" as to its functioning, and merely "assumes" that the device is a manifold. *Id.* In addition to this dearth of evidence, defendant points to the undisputed fact that the "Skinwave cannot provide treatment fluid from two fluid containers simultaneously." *Id.* ¶ 32. This underscores the assertion that the Skinwave fails to satisfy the "fluid communication" limitations of the '052 patent, which expressly requires "a first fluid container and at least a second fluid container." *Id.*

Months after the close of expert discovery in May 2022 and, indeed, the service of summary judgment papers and preliminary oral argument, counsel for Edge submitted a supplemental expert declaration, dated October 13, 2022, without leave of court. DE 91-3. In that declaration, plaintiff's expert avers that—at an unspecified date "subsequent" to his "first inspection" of the Skinwave device, he "isolated" the white box (which he refers to as a manifold). *Id.* ¶ 5. While the expert endeavors to reconcile his subsequent disassembly and examination of the white box with his initial inspection, this proves unpersuasive, as the supplemental declaration contains original photographs, annotations and analysis suggesting that the white box functions as a manifold. *Id.* ¶¶ 5-7. Defendant moves to strike this declaration as improper, a motion which, given plaintiff's untimely submission during lengthy, thorough and otherwise orderly litigation of this matter, seems appropriate.[1] Thus, the Court will not consider this late (and largely unpersuasive) submission, except as follows: In response to the motion to strike, plaintiff suggests that the purpose of this affidavit is simply to adopt the unsworn report, thereby rendering it admissible. DE 96 at 3 (citing *Mid-Town Laundry, LLC v. Pierce*, 2021 WL 2417672, at *8

[1] This fails to qualify as even an "eleventh-hour" effort by plaintiff; well past all relevant deadlines, the declaration seems better described as a "thirteenth-hour" submission.

(N.D.N.Y. 2021)). While the argument seems seasoned with disingenuity,[2] the Court will deem the expert report as having been adopted by the sworn affidavit for admissibility purposes.

And the issue goes beyond an absence of evidence proffered by plaintiff as to the function of the white box. Defendant's expert affirmatively opines that the component "doesn't work like a manifold and it is not a manifold." DE 69-1 ¶ 11. Instead, defendant's expert proffers that the device "is a matrix or a line of solenoid valves." *Id.* And this evidence has not been effectively controverted.

Discussion

Invalidity

In the context of a summary judgment motion, a party seeking invalidity of a patent must not only satisfy the requisites usually faced by litigants under Rule 56, but must also contend with the statutory presumption of validity and the burden of proof contained in the statute. 35 U.S.C. § 282(a) ("[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity."). As a result, "a defendant raising an invalidity defense [bears] 'a heavy burden of persuasion,' requiring proof of the defense by clear and convincing evidence." *Microsoft Corp. v. I4I Ltd. P'ship*, 564 U.S. 91, 102 (2011) (quoting *Radio Corp. of Am. v. Radio Eng'g Lab'ys*, 293 U.S. 1, 8, (1934)). Defendant's burden is intensified where, as here, it relies solely upon an earlier patent, "as new evidence supporting an invalidity defense may 'carry more weight' in an infringement action than evidence previously considered by the PTO." *Microsoft*, 564 U.S. at 110 (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir. 1984), *abrogated by Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed.

[2] That plaintiff does not simply rely on the belated supplemental affidavit solely for the purposes of adding an oath to its original report is demonstrated, *inter alia,* by its copious use of new photos and information about the liberated white box in its submissions. DE 91-1 at 19-21; DE 91-6 at 11.

Cir. 2011)). Moreover, "[t]o show that a patent claim is invalid as anticipated, the accused infringer must show by clear and convincing evidence that a single prior art reference discloses each and every element of a claimed invention." *Silicon Graphics, Inc. v. ATI Techs., Inc.*, 607 F.3d 784, 796 (Fed. Cir. 2010).

As to the manifold limitation, defendant, resting solely on the equivocal, conclusory assertions of its expert, plainly fails to satisfy the "clear and convincing" standard for invalidity. Regarding the multiple liquid container element of the '052 patent, defendant offers no evidence, but rather an extended exegesis of the patent's text and diagrams, which proves unconvincing. DE 88-2 at 8-11. Given the onerous standard faced by defendant in its endeavor to invalidate the patent, these efforts fall short. Thus, plaintiff is entitled to summary judgment on the question of invalidity.

Infringement

On the issue of infringement, the Federal Circuit has held:

> Summary judgment is appropriate when it is apparent that only one conclusion as to infringement could be reached by a reasonable jury. Summary judgment of noninfringement is appropriate where the patent owner's proof is deficient in meeting an essential part of the legal standard for infringement, since such failure will render all other facts immaterial.
>
> A patent infringement analysis involves two steps: (1) claim construction and, (2) application of the properly construed claim to the accused product. The first step, claim construction, is a matter of law that this court reviews without deference. Whether the accused device contains an element corresponding to each claim limitation, or its equivalent, is a question of fact reviewed under the clearly erroneous standard of review.

Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1323–24 (Fed. Cir. 2001) (alterations omitted). "With regard to the second step of the infringement analysis, the patentee must prove that the accused device embodies every limitation in the claim, either literally or by a substantial equivalent." *Conroy v. Reebok Int'l, Ltd.*, 14 F.3d 1570, 1573 (Fed. Cir. 1994). This

Court is otherwise required to apply the well-known standards for summary judgment as defined by the Second Circuit. *Niazi Licensing Corp. v. St. Jude Med. S.C., Inc.*, 30 F.4th 1339, 1350–51 (Fed. Cir. 2022).

Against that standard, the infringement motion is readily dispatched. Edge plainly has no competent, admissible evidence that would establish that the Skinwave device contains a manifold. Much of the briefing focuses on the meaning of manifold, whether dictionary definitions should apply, how a POSITA would interpret the term and whether the failure to raise the definition of the term during the *Markman* phase[3] bars argument based on the term. *See generally* DE 91-1, 92-1. All of this misses the mark. The essential point is that the word manifold—which appears four times in Claim 1 of the '052 Patent and countless times throughout the document—must mean *something*. *See* DE 91-1 at 14-15 (citing definitions of manifold that appear in four federal court opinions). Edge defines the inclusion of a manifold as the first claim limitation, expressly dubbing it the "manifold limitation." DE 66-1 ¶ 11. Yet, based on its expert's timely review of the accused product, Edge has no evidence that the white box contained therein constitutes a manifold. Thus, however one might construe the functions of a manifold, Edge cannot prove that the Skinwave device contains one.

In sum, Cartessa has demonstrated that, upon the undisputed facts, Edge cannot "prove that the accused device embodies every limitation in the claim." *Conroy*, 14 F.3d at 1573. Therefore, summary judgment of noninfringement is warranted.

Conclusion

Based on the foregoing, Edge's motion for summary judgment on the question of invalidity is GRANTED, but DENIED as to infringement, while Cartessa's motion for summary judgment

[3] At the *Markman* hearing, both sides declined the opportunity to present testimony. *Edge I*, 571 F. Supp. 3d at 16.

of noninfringement is GRANTED.

Counsel shall meet and confer and submit a joint status report within ten days of this decision to advise the Court as to whether any further issues need to be resolved.

SO ORDERED.

Dated: June 6, 2023
Central Islip, New York

/s/ Gary R. Brown
GARY R. BROWN
UNITED STATES DISTRICT JUDGE