

NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IN RE: JOSEPH GIUFFRIDA

2012-1692

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in serial No. 11/432,583.

Decided: July 18, 2013

BRIAN M. KOLKOWSKI, Great Lakes Neuro Technologies Inc., of Cleveland, Ohio, for appellant. With him on the brief was MARK PENNINGTON.

NATHAN K. KELLEY, Deputy Solicitor, Office of the Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia, for appellee. With him on the brief were FARHEENA Y. RASHEED and STACY B. MARGOLIES, Associate Solicitors.

Before LOURIE, PLAGER, and TARANTO, *Circuit Judges*.
PER CURIAM.

This is an appeal from a decision of the Board of Patent Appeals and Interferences (now the Patent Trial and Appeal Board) that sustained the Examiner's final rejec-

tion of certain claims in a patent application as not patentable over several prior-art references. The applicant appeals (1) the rejection of four claims, a rejection that stands or falls on one piece of prior art (Shields), and (2) the obviousness rejection of five other claims. Concluding that the Board erred on the first issue and erred in part on the second, we affirm in part and reverse in part.

BACKGROUND

Joseph Giuffrida filed Patent Application No. 11/432,583, entitled “Movement Disorder Recovery System and Method,” in May 2006. The application describes a rehabilitation system for improving motor recovery in patients who suffer from movement disorders that result from, for example, stroke or cerebral palsy. A286. Like prior treatment methods, the system targets affected muscles through repetitive motor activity and a technique known as functional electrical stimulation (FES). A287-88. Unlike prior methods using those techniques, which involved “long stays in a treatment center,” Giuffrida’s invention seeks to allow patients to continue their therapy independently, outside treatment centers and without a therapist. A288.

The “portable” nature of the invention is important to that goal and is expressed throughout the application. Every claim begins by reciting a “portable therapy system.” A280-85. The specification, moreover, states that one objective of the invention is “to provide a portable system which the individual can carry with themselves so they might be treated at home, on vacation or while away from home on business.” A288. It later explains that “[b]y portable it is meant among other things that the device is capable of being transported relatively easily.” That “means that the therapy device is easily worn and carried, generally in a carrying case,” and “should be relatively light-weight.” A295-96.

The application also describes many details of the claimed system and its technology. Figure 4 depicts the “device as applied to a subject”:



Figure 4

A294, 327. As shown, there is a device—preferably a video display—for providing instructions like tasks or exercises to perform. *E.g.*, A309-10. The system includes sensors for measuring body motion and/or muscle activity, and it may also include an apparatus that provides FES to the patient’s muscles. A289-94. The various devices may communicate with one another wirelessly, over a two-way radio frequency (RF) link. *E.g.*, A306-09. And the application sets forth some specifics about the circuitry of its electronic components. *E.g.*, A297-304.

The application contains three independent claims. Independent claim 1 recites:

A portable therapy system for rehabilitation of a subject’s movement disorder comprising

- a sensor for measuring a subject’s voluntary muscle activity having a signal related to the muscle’s electrical activity; and
- a device for providing a video, audio, written or verbal stimulus to the subject to respond to

wherein the subject’s ability to respond to the stimulus is calculated based in part on the signal

for measuring the subject's electrical muscle activity.

A280. Independent claim 15 includes an additional sensor for measuring "external body motion," and independent claim 21 recites a system with two sensors as well as a microprocessor. Claims 2 and 16 depend from claims 1 and 15, respectively, and add a "device worn by the subject to provide FES." A280-86. Claims 7 and 20 specify that one sensor is a gyroscope. Claims 23-27, which depend from claim 21, add limitations related to the electronic components and circuitry. *Id.*

In April 2009, the Examiner rejected all of the pending claims as anticipated or rendered obvious by several prior-art references. Giuffrida appealed to the Board, which reversed the rejection of claim 22 but sustained the rejections of the remaining claims. *Ex parte Giuffrida*, No. 2010-004633 (B.P.A.I. June 21, 2012). Giuffrida appeals the rejections of claims 2, 7, 16, 20, and 23-27 to this court. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

Giuffrida presents two issues for review: (1) whether the Board erred in its application of the single piece of prior art on which its rejections of claims 2, 7, 16, and 20 turned; and (2) whether the Board erred in its obviousness rejections of claims 23-27.

A

The Board relied for four rejections on U.S. Patent Application Publication No. US 2005/0209049 A1 ("Shields"). Specifically, the Board found that Shields anticipates claims 2 and 16 and then used that anticipation finding as the premise for an obviousness rejection of claims 7 and 20. *Ex parte Giuffrida*, at 11-15. The Director does not challenge Giuffrida's contention that the obviousness rejections of claims 7 and 20 fall if the anticipation rejections of claims 2 and 16 fall. We conclude that

the Board lacked substantial evidence to find that Shields anticipates claims 2 and 16 and thus reverse the rejections of claims 2, 7, 16, and 20. *See In re Antor Media Corp.*, 689 F.3d 1282, 1287 (Fed. Cir. 2012) (Board determination of anticipation reviewed for substantial evidence); *In re NTP, Inc.*, 654 F.3d 1279, 1301-02 (Fed. Cir. 2011).

An anticipating reference must disclose every claim limitation, either expressly or inherently. *E.g.*, *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006). Inherent disclosure requires that the prior-art reference “necessarily include the unstated limitation.” *Id.* at 1000; *see also Cont’l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). “[P]robabilities or possibilities” are not enough to find that the prior art inherently discloses something not explicitly present. *In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981).

Shields does not anticipate the claims here because it does not disclose, either expressly or inherently, the limitation requiring that Giuffrida’s device be “portable.”¹ The Board itself observed that “Shields does not expressly state that [its] system is portable or can be carried.” *Ex parte Giuffrida*, at 11. In order to anticipate, therefore, Shields must inherently disclose a “portable” system. But there is no substantial evidence to support a finding of inherent disclosure.

Like Giuffrida’s application, Shields describes a system that uses electrical stimulation and voluntary exercise to rehabilitate muscles. But what Shields discloses, as it emphasizes in distinguishing prior art, is an apparatus that “can safely provide . . . supported standing exercise options to persons who either have limited physical mobility or complete loss of mobility due to muscular

¹ The parties agree that the term “portable” is limiting despite its location in the preamble.

paralysis,” unlike prior devices that did not allow patients to be “supported within the device, while their muscle groups are being electrically stimulated for exercise” Shields, at [0001-0002]. The claims thus include limitations like a “rigid frame structure,” *id.* at pp. 5-6, and the device is depicted like this:

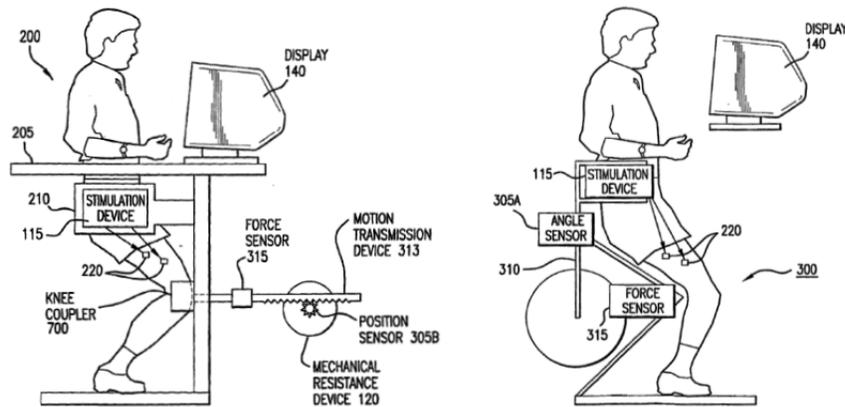


FIG. 2

FIG. 3

Id. at figs. 2-3. Nothing in Shields’s disclosure of this large apparatus establishes that it “must necessarily” be portable. *Atofina*, 441 F.3d at 1000.

The Board found that Shields inherently discloses a portable system because Shields does “not appear to contain any structure confining it to a particular location.” *Ex parte Giuffrida*, at 11. But that observation does not indicate that Shields “necessarily” includes a portability limitation, or even that Shields must necessarily be free from “confin[ement] to a particular location.” On the contrary, a finding that Shields does not say that its system is not portable—which is all that the Board’s statement implies—is just a restatement of the fact that Shields does not expressly disclose a portability limitation. It does not suggest anything about what Shields inherently discloses that would suffice to shift the burden to Giuffrida to disprove inherency. *Id.* at 11-12.

Having reviewed Shields, the Board's opinion, the Examiner's determinations, and the Director's argument on appeal, we see no substantial evidence that the person-supporting structure disclosed in Shields must be "portable." That is so even under the Board's view that the broadest reasonable construction of "portable" requires only that the item "can be carried." *Id.* at 11. We note, however, that the Board drew its construction from a dictionary, whereas the PTO's traditional pre-issuance approach has been to give claims "their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (emphasis added); *cf.* 37 C.F.R. § 42.300(b), adopted at 77 Fed. Reg. 48,680 (Aug. 14, 2012) (same). Here, Giuffrida's specification says that, to be "portable," the system must be "capable of being transported relatively easily," and it provides details about, and depictions of, the device that are consistent with that meaning. A286-327. We need not further address the proper construction, because *a fortiori* Shields does not expressly or inherently meet the narrower, specification-based interpretation.

Accordingly, the Board's finding that Shields discloses a "portable" rehabilitation system cannot stand. That conclusion suffices to reverse the anticipation finding based on Shields and the rejections that followed from it. We therefore reverse the rejections of claims 2, 7, 16, and 20.²

² Giuffrida also disputes the Board's findings that Shields teaches (1) a "sensor for measuring a subject's voluntary muscle activity having a signal related to the muscle's electrical activity" and (2) a "device worn by the subject to provide FES." Although the above is sufficient to reverse the rejections, we are not persuaded by Giuffrida's arguments concerning those limitations.

B

Giuffrida makes two attacks on the obviousness rejections of claims 23-27: (1) a broad assertion that the Board did not adequately support its conclusions with factual findings and full legal analysis, and (2) a more specific contention that the rejection of claim 24 was erroneous.

As to the first point, we decline to hold that the Board's obviousness findings were categorically improper. We have previously upheld obviousness rejections when the Board's "path may reasonably be discerned," even if "[i]ts conclusions [we]re cryptic, but . . . supported by the record." *In re Huston*, 308 F.3d 1267, 1280-81 (Fed. Cir. 2002); *see also In re Applied Materials, Inc.*, 692 F.3d 1289 (Fed. Cir. 2012). The absence of an express finding about the level of skill in the art, moreover, "does not give rise to reversible error 'where the prior art itself reflects an appropriate level and a need for testimony is not shown.'" *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Here, the Examiner discussed what the prior art taught and suggested while setting out the basis for his ultimate conclusions. And the Board, largely agreeing with the Examiner, discussed the same prior art and many of the same suggestions and teachings in it. *Ex parte Giuffrida*, at 14-17. We have no significant difficulty discerning the Board's path to the rejections. We need not remand the case for more.

Although Giuffrida has not presented any persuasive reasons to conclude that the Board's analysis of prior art was erroneous for claims 23 and 25-27, the rejection of claim 24 is a different matter. Giuffrida has singled out this claim and provided a separate, more developed argument about it. Claim 24 depends from claim 23, which recites a system in which sensor signals are "received, processed, and wirelessly transmitted by one or more electronic components." Claim 24 adds the requirement that the signals be "wirelessly retransmitted over a two-way RF link." A284. The specification touts particular advantages from this retransmission over a

two-way RF link, including more reliable data transfers and longer battery life. A307-08.

We are not persuaded by the Board's conclusion that claim 24 would have been obvious in light of U.S. Patent Application Publication No. US 2004/0024312 A1 ("Zheng"). Zheng discloses a system for "sensing the gesture, posture and movement" of body parts. It uses ultrasound transducers that communicate with a compact unit, which, in turn, communicates with a computer. Those communications are twice referred to as "wireless," Zheng, at [0070, 0073], but the document says little else about them. It does not mention a radio frequency (RF) link, a two-way or bidirectional link, the retransmission of data over such a link, or any benefits from such retransmissions. We have been pointed to no substantial evidence that Zheng teaches such features. *See In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000) (while PTO's ultimate obviousness determination reviewed as a matter of law, underlying factual findings about teachings of prior art reviewed for substantial evidence).

Nor has the Director persuasively explained why Zheng renders those limitations from claim 24 obvious. On the contrary, the reasoning within the PTO has been inconsistent and conclusory in this matter. In stating that it "fail[ed] to see how a system that can both receive signals from sensors and deliver them to, for example, FES systems, could operate absent a two-way link," the Board cited a paragraph in Zheng that mentions a wireless link between units embedded in the body and an "outside control unit." *Ex parte Giuffrida*, at 14 (citing Zheng, at [0076]). The Examiner invoked different paragraphs from Zheng to find that a two-way link is "implied" or "required." Broad-brush statements based on Zheng's generic references to a "wireless" link are insufficient to support the conclusion that Zheng renders obvious a claim calling for the "wireless[] retransmi[ssion] [of sensor signals] over a two-way RF link." We therefore reverse the rejection of claim 24.

CONCLUSION

For the foregoing reasons, the rejections of claims 23 and 25-27 are affirmed, and the rejections of claims 2, 7, 16, 20, and 24 are reversed.

AFFIRMED IN PART, REVERSED IN PART