



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/901,933	07/29/2004	Peter P. Sterrantino	M192.161.101/PD0000271.00	9204

25281 7590 02/04/2019

DICKE, BILLIG & CZAJA
FIFTH STREET TOWERS
100 SOUTH FIFTH STREET, SUITE 2250
MINNEAPOLIS, MN 55402
UNITED STATES OF AMERICA

EXAMINER

TOWA, RENE T

ART UNIT	PAPER NUMBER
----------	--------------

3791

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

02/04/2019

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO.PATENTS@dbclaw.com
dmorris@dbclaw.com
DBCLAW-Docket@dbclaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER P. STERRANTINO, DAVID C. HACKER, and
BRET M. BERRY

Appeal 2018-005692
Application 10/901,933
Technology Center 3700

Before EDWARD A. BROWN, MICHAEL L. HOELTER, and
ANNETTE R. REIMERS, *Administrative Patent Judges*.

REIMERS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Peter P. Sterrantino et al. (“Appellants”) appeal under 35 U.S.C. § 134(a) from the Examiner’s decision to reject claims 1–13, 16–27, 36, and 37. Claims 14, 15, and 28–35 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

CLAIMED SUBJECT MATTER

The claimed subject matter “relates to a stimulator handpiece useful as part of an evoked potential monitoring system and to remotely dictate a changeable stimulation energy level delivered by a stimulus probe otherwise carried by the handpiece.” Spec. 1:6–8, Figs. 1, 2. Claims 1 and 22 are independent.

Claim 1 is illustrative of the claimed subject matter and recites:

1. An evoked potential monitoring system comprising:
 - a control unit including stimulator circuitry;
 - cabling including a control cable and an energy supply cable each independently electrically coupled to the control unit; and
 - a probe assembly electrically coupled to the control unit through the control cable, the probe assembly including:
 - a stimulus probe electrically coupled to the energy supply cable, and
 - a stimulator handpiece selectively maintaining the stimulus probe, the handpiece including:
 - a handle defining an enclosed region,
 - control circuitry disposed within the enclosed region and electrically connected to the stimulator circuitry through the control cable,
 - a switch electrically coupled to the control circuitry and extending from the enclosed region to an exterior portion of the handle, the switch movable to a plurality of positions, the handle fluidly sealed between the exterior portion to the enclosed region at the switch;

wherein the system is adapted such that movement of the switch to one of the plurality of positions relative to the handpiece remotely prompts the stimulator circuitry to continuously vary a stimulation energy level delivered to the stimulus probe while the switch is maintained in said one of the plurality of positions such that at least two different stimulation energy levels between 0.0 and 30.0 milliamperes are delivered.

THE REJECTIONS

- I. Claims 1, 2, 5–11, 13, 36, and 37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib (US 2005/0075578 A1, published Apr. 7, 2005), Biscup (US 2004/0034340 A1, published Feb. 19, 2004), Morgan (US 2001/0049524 A1, published Dec. 6, 2001), and Katims (US 5,806,522, issued Sept. 15, 1998).
- II. Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and West (US 6,618,626 B2, issued Sept. 9, 2003).
- III. Claim 12 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Yamazaki (US 2002/0193779 A1, published Dec. 19, 2002).
- IV. Claim 16 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Monroe (US 5,347,989, issued Sept. 20, 1994).
- V. Claims 17 and 21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Moriyasu (US 5,857,986, issued Jan. 12, 1999).

- VI. Claim 18 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Cory (US 2002/0065481 A1, published May 30, 2002).
- VII. Claim 19 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Wilson (US 5,540,235, issued July 30, 1996).
- VIII. Claim 20 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Biscup, Morgan, Katims, and Rovegno (US 2004/0204628 A1, published Oct. 14, 2004).
- IX. Claims 22 and 27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Morgan, Katims, and Rovegno.
- X. Claims 23–25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Morgan, Katims, Rovegno, and Monroe.
- XI. Claim 26 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gharib, Morgan, Katims, Rovegno, and Moriyasu.

ANALYSIS

Rejection I—Obviousness over Gharib, Biscup, Morgan, and Katims

With respect to claim 1, the Examiner finds that Gharib discloses an evoked potential monitoring system (surgical system 20) comprising the various components as claimed, namely, a control unit (control unit 22 and patient module 24), cabling (accessory cable 32 and cable 55), a probe assembly (pedicle testing assembly 36), a stimulus probe (pedicle probe 56), a stimulator handpiece (handle assembly 54), a handle, and a switch (buttons on handle assembly 54). Non-Final Act. 3–4 (citing Gharib ¶¶ 60–63, 66,

77–80, Figs. 2, 3).¹ The Examiner acknowledges that Gharib as modified by Biscup and Morgan

fails to explicitly teach a system wherein the system is adapted such that movement of the switch to one of the plurality of positions relative to the handpiece remotely prompts the stimulator circuitry to continuously vary a stimulation energy level delivered to the stimulus probe while the switch is maintained in said one of the plurality of positions such that at least two different stimulation energy levels . . . are delivered.

Id. at 6. The Examiner relies on Katims for disclosing

[a] system [that] is adapted such that movement of the switch (21, 22) to one of the plurality of positions (i.e. pressed or released) relative to the *handpiece remotely prompts* the stimulator circuitry to continuously vary a stimulation energy level delivered to *the stimulus probe* 9 while the switch (21, 22) is maintained in said one of the plurality of positions such that at least two different energy levels are delivered.

Id. at 6–7 (emphasis added) (citing Katims Abstract, 15:7–15, 65–67; 16:1–26, Figs. 1, 2). The Examiner concludes that it would have been obvious to further modify the evoked potential monitoring system of Gharib so that

the system is adapted such that movement of the switch to one of the plurality of positions relative to the handpiece remotely prompts the stimulator circuitry to continuously vary a stimulation energy level delivered to the stimulus probe while the switch is maintained in said one of the plurality of positions such that at least two different stimulation energy levels . . . are delivered . . . [as taught by Katims] for improvement to achieve a predictable result such as rapidly switching between different intensities, which is often clinically desirable, so as to sweep from current amplitudes of any suitable range until a significant EMG response is obtained.

Non-Final Act. 7.

¹ Non-Final Office Action (“Non-Final Act.”), dated Sept. 20, 2017.

Appellants contend that: (1) “Katims relates to an automated current perception threshold (CPT) determination device including a CPT control device 9 operated by a user (e.g., a technician or a patient) and electrodes, cables, connectors 19 connectable to a patient,” in which “the electrodes can be placed on the skin of the patient (i.e., cutaneous body site) at one of electrode placement body test sites” and thus, “Katims is clearly not configured for use by a surgeon to apply the desired stimulus level to anatomical features during intraoperative evoked potential monitoring events, as is the pending system”; (2) “CPT device 9 is clearly not a stimulator handpiece selectively maintaining a stimulus probe, the stimulator handpiece including a switch,” but rather, “CPT control device 9 is a table top device that includes a display 100 and a variety of controls, including switches 21, 22 for stimulus control and CPT determination”; and (3)

Katims does not disclose that movement of the switches 21, 22 relative to the CPT device 9 remotely prompts stimulator circuitry to continuously vary a stimulation energy level delivered to the stimulus probe while the switch is maintained in said one of the plurality of positions such that at least two different stimulation energy levels [are delivered].

Appeal Br. 11–12 (emphasis omitted).²

Appellants have the better position here. As an initial matter, although the Examiner finds that Gharib already discloses a stimulator handpiece 54 and a stimulus probe 56, the Examiner *also* relies on Katims for disclosing a handpiece, a probe, and remotely prompting a stimulator circuitry relative to the handpiece or the probe. *See* Non-Final Act. 6–7; Ans. 7. Thus, it is not clear which reference the Examiner relies on as

² Appeal Brief (“Appeal. Br.”), filed Feb. 15, 2018.

disclosing these claimed limitations. As such, the Examiner does not sufficiently articulate the rejection in an informative manner to provide notice to Appellants. “[A]ll that is required of the office to meet its *prima facie* burden of production is to set forth the statutory basis of the rejection and the reference or references relied upon in a sufficiently articulate and informative manner as to meet the notice requirement of [35 U.S.C.] § 132.” *In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011).

In this case, we agree with Appellants that it is unreasonable to equate Katims’ CPT control device 9 to a handpiece or a probe. *See* Reply Br. 2–3; Non-Final Act. 6–7; Ans. 5.^{3,4} The Examiner’s construing of a handpiece as any object that can be contacted and/or manipulated by hand is beyond the bounds of broadest reasonable interpretation. *See* Ans. 5. Further, a “probe” is defined as a “blunt-ended surgical instrument used for exploring a wound or part of a body.”⁵ In addition, the Specification describes that “the stimulus probe 72 can be any one of a variety of tissue, bone, and/or nerve stimulator probes.” *See* Spec. 10:17–19, Fig. 1. At best, Katims’ CPT control device 9 corresponds to console 30 of the subject invention rather than stimulus probe 72.

Within the same vein of argument provided by Appellants, we fail to see how Katims’ CPT control device 9 *remotely prompts* stimulator circuitry as the Examiner asserts. *See* Non-Final Act. 6–7; Appeal Br. 12. Katims’ CPT control device 9 delivers energy to a person not to a probe, as claimed.

³ Reply Brief (“Reply Br.”), filed May 11, 2018.

⁴ Examiner’s Answer (“Ans.”), dated Mar. 13, 2018.

⁵ <https://en.oxforddictionaries.com/definition/probe> (last accessed Jan. 10, 2019).

See Katims, Fig. 1; *see also* Reply Br. 3, 6–8; Appeal Br. 26, Claims App. (“wherein the system is adapted such that movement of the switch to one of the plurality of positions relative to the handpiece *remotely prompts the stimulator circuitry* to continuously vary a stimulation energy level *delivered to the stimulus probe*”) (emphasis added). Thus, the Examiner fails to establish by a preponderance of the evidence that the combined teachings of Gharib, Biscup, Morgan, and Katims disclose the monitoring system of claim 1.

For these reasons, we do not sustain the rejection of claim 1 and claims 2, 5–11, 13, 36, and 37 depending therefrom.

Rejection II – VIII Obviousness over Gharib, Biscup, Morgan, Katims, and any of West, Yamazaki, Monroe, Moriyasu, Cory, Wilson, or Rovegno

Claims 3, 4, 12, and 16–21 depend from claim 1. Appeal Br. 26–29, Claims App. The Examiner’s rejections of these claims over the variously indicated combinations of cited art are each based on the same unsupported findings in the combination of Gharib, Biscup, Morgan, and Katims discussed above. *See* Non-Final Act. 15–21. The Examiner does not rely on West, Yamazaki, Monroe, Moriyasu, Cory, Wilson, or Rovegno to remedy the deficiencies of the combination of Gharib, Biscup, Morgan, and Katims. Accordingly, for reasons similar to those discussed above for Rejection I, we do not sustain the rejections of claims 3, 4, 12, and 16–21 over the variously indicated combinations of cited art.

Rejection IX— Obviousness over Gharib, Morgan, Katims, and Rovegno

Independent claim 22 is directed to “[a] stimulator handpiece for use with an evoked potential monitoring system” and recites “movement of the switch to one of the plurality of positions *remotely varies* an electrical signal deliverable to the *stimulus probe* while the switch is maintained in said one of the plurality of positions such that at least two different stimulation energy levels are deliverable to the *stimulus probe*.” Appeal Br. 29, Claims App. (emphasis added).

With respect to claim 22, the Examiner finds that Gharib as modified by Morgan discloses a stimulator handpiece for use with an evoked potential monitoring system and relies on Katims for disclosing

a system wherein movement of the switch (21, 22) to one of a plurality of positions *remotely varies* an electrical signal *deliverable to the stimulus probe 9* while the switch (21, 22) is maintained in said one of the plurality of positions such that at least two different stimulation energy levels are deliverable to the *stimulus probe 9*.

Non-Final Act. 21–23 (emphasis added).⁶ As discussed above for Rejection I, we do not agree with the Examiner that Katims’ CPT control device 9 equates to a probe, as claimed. Further, we fail to see how movement of Katims’ switch (21, 22) to one of a plurality of positions *remotely varies* an electrical signal *deliverable to the stimulus probe 9*. *See id.*; *see also* Appeal Br. 22. As discussed above, Katims’ CPT control device 9 delivers energy to a person not to a probe, as claimed. *See* Katims, Fig. 1; *see also* Reply Br. 3, 6–8; Appeal Br. 29, Claims App. (“wherein movement of the switch

⁶ The Examiner relies on the teachings of Rovegno for limitations other than those discussed above. *See* Non-Final Act. 21–25.

to one of the plurality of positions *remotely varies* an electrical signal *deliverable to the stimulus probe*") (emphasis added). Thus, the Examiner fails to establish by a preponderance of the evidence that the combined teachings of Gharib, Morgan, Katims, and Rovegno disclose the handpiece of claim 22.

For these reasons, we do not sustain the rejection of claim 22 and claim 27 depending therefrom.

Rejection X–XI Obviousness over Gharib, Morgan, Katims, Rovegno, and either Monroe or Moriyasu

Claims 23–26 depend from claim 22. Appeal Br. 29, Claims App. The Examiner's rejections of these claims over the variously indicated combinations of cited art are each based on the same unsupported findings in the combination of Gharib, Morgan, Katims, and Rovegno discussed above. *See* Non-Final Act. 25–27. The Examiner does not rely on Monroe or Moriyasu to remedy the deficiencies of the combination of Gharib, Morgan, Katims, and Rovegno. Accordingly, for reasons similar to those discussed above for Rejection IX, we do not sustain the rejections of claims 23–26 over the variously indicated combinations of cited art.

DECISION

We REVERSE the decision of the Examiner to reject claims 1–13, 16–27, 36, and 37 under 35 U.S.C. § 103(a).

REVERSED