



# 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.
13/128,707	07/12/2011	Mauro Bonino	DMB-4636-201	2842
23117	7590	11/01/2016	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			LYNCH, ROBERT A	
			ART UNIT	PAPER NUMBER
			3731	
			NOTIFICATION DATE	DELIVERY MODE
			11/01/2016	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):

PTOMAIL@nixonvan.com  
pair\_nixon@firsttofile.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* MAURO BONINO and GUIDO RUSCO

---

Appeal 2014-005584  
Application 13/128,707  
Technology Center 3700

---

Before JENNIFER D. BAHR, EDWARD A. BROWN, and JILL D. HILL,  
*Administrative Patent Judges.*

HILL, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Mauro Bonino and Guido Rusco (“Appellants”) appeal under 35 U.S.C. § 134(a) from the Examiner’s decision to reject claims 11–24.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b). Oral argument was heard on October 13, 2016. This Decision is based on arguments set forth in Appellants’ briefing. *See* 37 C.F.R. § 41.41(b)(2); 37 C.F.R. § 41.47(e).

We AFFIRM.

---

<sup>1</sup> Claims 1–10 have been canceled. Appeal Br. 19 (Claims App.).

### CLAIMED SUBJECT MATTER

Independent claims 11 and 24 are pending. Claim 11, reproduced below, represents the subject matter on appeal.

11. A device for applying a connecting glue to the facing extremities of two portions of tissue to be connected through enteric anastomosis performable with a mechanical suturer, the device comprising a diffusing element suppliable with the glue and interposable between the two portions of tissue to be connected, the diffusing element being provided with at least two openings for bilateral delivery of the glue towards the two portions of tissue to be connected, wherein said diffusing element is connected in fluid communication to a first sheath, wherein the first sheath is a distinct element from the diffusing element and allows the device to be connected to the dispenser of aeriforms,

wherein said device is connected to a dispenser of aeriforms under pressure for delivering said aeriform inside the first sheath for nebulising the connecting glue delivered by the diffusing element to the portions of tissue to be connected, and

wherein said diffusing element has a deployable structure for cooperating with said mechanical suturer.

### REJECTIONS

I. Claims 11–22 and 24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over McGurk (US 2006/0009801; pub. Jan. 12, 2006) and Redl (US 4,631,055; iss. Dec. 23, 1986). Final Act. 3.

II. Claim 23 stands rejected under 35 U.S.C. § 103(a) as unpatentable over McGurk, Redl, and Smit (US 2003/0191476 A1; pub. Oct. 9, 2003). Final Act. 5.

## ANALYSIS

### *Rejection I*

Appellants argue claims 11–22 and 24 as a group. Appeal Br. 16. We select claim 11 as representative, with claims 12–22 and 24 standing or falling therewith. *See* 37 C.F.R. § 41.37(c)(iv).

Regarding independent claim 11, the Examiner finds that McGurk discloses, *inter alia*, a device for applying adhesive material in a patient, the device “comprising a diffusing element/delivery catheter (24) suppliable with glue (Abstract; [0043]) and interposable between two portions of tissue to be connected,” the diffusing element 24 comprising a “tubular conduit (lumen of delivery catheter (24)).” Final Act. 3. The Examiner also finds that McGurk’s diffusing element 24 is distinct from, and in fluid communication with, a first sheath (i.e., chest tube 16), the first sheath 16 allowing the device to be connected to an aeriform dispenser. *Id.* at 4.

The Examiner also finds that McGurk’s diffusing element 24 is axially movable within the first sheath 16, such that the holes 26 of the diffusing element 24 “are capable of being positioned at the proximal-most holes” 21 of the first sheath 16, “allowing the glue to receive the dispensed pressurized aeriform prior to the aeriform entering the pleural space.”

Advisory Action dated Oct. 23, 2013.

The Examiner further finds that McGurk fails to explicitly disclose “the device being connected to a dispenser of aeriforms under pressure for nebulizing the connecting glue delivered by the diffusing element.” Final Act. 4. The Examiner notes, however, that McGurk, states generally that its glue “may be provided and applied in an aerosol form ([0041]).” Ans. 3.

Regarding providing adhesive in an aerosol form, the Examiner finds that Redl discloses

an apparatus for applying tissue adhesive wherein the device is connected to a dispenser of aeriforms/medicinal gas (col. 2, lines 4-12; col. 3, lines 1-10) under pressure for nebulizing the connecting glue delivered by the diffusing element . . . to allow for adjustment of the gas conveyance rate thereby allowing for selection of adhesive dispersal in either a liquid form or an atomization of the components (col. 2, lines 26-32; col. 3, lines 41-48).

Final Act. 4–5. The Examiner concludes that it would have been obvious to employ Redl’s aeriform dispenser in McGurk to allow adjustment of the gas conveyance rate and, thus, selection of adhesive dispersal in liquid or aerosol form. *Id.* at 5.

*Air Delivery*

Appellants argue that McGurk’s chest tube 16, while suitable to convey glue, is not suitable for connection to an aeriform dispenser, because delivery of air to the patient’s pleural space via the holes 21 in McGurk’s chest tube 16 would harm the patient. Appeal Br. 14–15.

Because McGurk explicitly states that its “glue may be applied in an aerosol form” (McGurk, ¶ 41), we are not persuaded by Appellants’ argument that it would be improper or harmful to deliver an amount of air appropriate to aerosolized glue to the patient’s pleural space.

*Modifying McGurk*

Appellants also argue that McGurk’s chest tube 16 and holes 21 therein are used to draw fluid from a patient’s pleural space, and that use of Redl’s aeriform dispenser with McGurk’s chest tube 16, with holes 21, would not properly aerosolize McGurk’s glue, and that “the McGurk device

would have to be heavily modified - if it could be modified at all -- in order to arrive at the applicant's claimed device." Appeal Br. 15. According to Appellants, one skilled in the art, therefore, would not perform such a heavy modification in the absence of hindsight. *Id.* at 16.

The Examiner responds that McGurk expressly suggests application of its glue in aerosol form, but does not provide explicit structural details regarding a delivery mechanism. Ans. 3. Redl, however, discloses such a delivery mechanism in its aeriform dispenser that aerosolizes glue in a surgical adhesive device, via an adhesive delivery catheter 31 having a gas channel 30A running parallel with adhesive channels 28A, 29A. *Id.* (citing Redl Fig. 3; 2:4–12; 3:11–16). The channels of Redl's delivery catheter 31 feed into a mixing needle 36 having an interior space 38 that "may be provided with an internal surface that promotes the turbulence of the components flowing therethrough" to aerosolize the glue. Redl, 3:31–40.

Given the teachings of Redl regarding an apparatus for aerosolizing glue in a mixing needle before surgical delivery thereof, we are not persuaded that one skilled in the art would have needed to employ impermissible hindsight to introduce gas from an aeriform dispenser into McGurk's device in such a manner that it aerosolizes the glue being dispensed via its syringe 28, catheter 24, and holes 26. Indeed, one skilled in the art would have had the example of Redl's mixing needle to follow. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art."); *see also KSR Int'l Co. v. Teleflex Inc.*,

550 U.S. 398, 420–421 (2007) (“A person of ordinary skill is also a person of ordinary creativity, not an automaton” who can “fit the teachings of multiple patents together like pieces of a puzzle.”).

For the reasons set forth above, we sustain Rejection I.

*Rejection II*

Dependent claim 23 recites, *inter alia*, a second protective sheath housing the first protective sheath and covering the diffusing element in an advanced position. The Examiner finds this teaching in Smit. Final Act. 5. Appellants argue that neither McGurk nor Redl discloses a second protective sheath as claimed, and that such a second protective sheath is “contrary to the teachings of McGurk because a second sheath would ‘cover’ and, therefore, defeat McGurk’s chest tube 16 with holes 21 that draw” pleural fluid from the patient. Appeal Br. 17. Appellants further contend that one skilled in the art would not modify McGurk to employ Smit’s sheath without improperly employing hindsight. *Id.*

It is Smit, not McGurk or Redl, that the Examiner relies on for disclosing a second protective sheath 114. Final Act. 5–6. According to the Examiner, Smit discloses a surgical adhesive applicator utilizing a second sheath 114 disposed about retractable internal adhesive delivery components to protect the body and the inserted components from each other during delivery. Ans. 5 (citing Smit ¶¶ 83, 86).

We are not persuaded by Appellants’ arguments. One skilled in the art would have understood that the Examiner’s proposed combination of McGurk and Redl, which would provide glue at a distal tip, would benefit from a protective sheath that covers the distal tip during delivery. Further, we are not persuaded that provision and employment of such a sheath, as

Appeal 2014-005584  
Application 13/128,707

proposed, is beyond the ordinary creativity and knowledge of a skilled artisan. We sustain Rejection II.

DECISION

We AFFIRM the rejections of claims 11–22 and 24 under 35 U.S.C. § 103(a) as unpatentable over McGurk and Redl.

We AFFIRM the rejection of claim 23 under 35 U.S.C. § 103(a) as unpatentable over McGurk, Redl, and Smit.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED