

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

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Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ALAN P. DIEKEN

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Appeal No. 95-0953  
Application 07/976,328<sup>1</sup>

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HEARD: November 10, 1997

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Before THOMAS, BARRETT, and FLEMING, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed November 13, 1992, entitled "Stethoscope Having Microphone Therein."

Appeal No. 95-0953  
Application 07/976,328

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-4, 6-13, and 15-17, all the claims pending in the application. Claims 5 and 14 have been cancelled. We affirm-in-part.

The disclosed invention is directed to a stethoscope chestpiece having an acoustic to electrical transducer mounted within the acoustic pathway in the chestpiece.

Claim 1, the sole independent claim, is reproduced below.

1. A stethoscope chestpiece for transmitting auscultatory sounds both acoustically and electrically, comprising:

a stethoscope housing forming an acoustic pathway for acoustic auscultation;

a mounting having at least one opening to permit passage of sound in the acoustic pathway; and

an acoustic to electrical transducer residing within the mounting and within the acoustic pathway and positioned within the same acoustic pathway as employed for acoustic auscultation;

whereby the same pathway of sound is used to receive both acoustically transmitted information and electrically generated information from the stethoscope chestpiece.

The examiner relies on the following references:

Pfeiffer	4,071,694	January 31, 1978
Dufresne et al. (Dufresne)	5,204,500	April 20, 1993 (filed February 20, 1991)

Appeal No. 95-0953  
Application 07/976,328

The final rejection of all claims under 35 U.S.C. § 102(b) as being anticipated by Kempka, U.S. Patent 4,783,813, has been withdrawn (Examiner's Answer, page 3).

Claims 1-3, 9-12, and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Dufresne.

Claims 1-4, 6-13, and 15-17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Pfeiffer.

We refer to the Examiner's Answer (Paper No. 14) for a complete statement of the examiner's position and to the replacement Brief (Paper No. 13) and the Reply Brief (Paper No. 16) for appellant's response.

#### OPINION

##### Grouping of claims

The examiner errs in considering the dependent claims to stand or fall together with independent claim 1 under 37 CFR § 1.192(c)(5) (1994).

As appellant points out (Reply Brief, page 3): "there were two sets of claims, one to a chestpiece [claims 1-4 and 6-8] and one to a stethoscope [claims 9-13 and 15-17]." Claim 9 is, in effect, an independent claim to a stethoscope

Appeal No. 95-0953  
Application 07/976,328

which incorporates by reference the chestpiece limitations of claim 1. The chestpiece limitations of claims 11-13, 15, and 16, which depend directly or indirectly on stethoscope claim 9, parallel identically the chestpiece limitations in claims 2-4, 6, and 7, which depend directly or indirectly on chestpiece claim 1. We agree with appellant that it is acceptable to refer to arguments made with respect to identical limitations in other claims rather than repeating the arguments. This is not the situation where a dependent claim is stated to be patentable for the reasons given with respect to an independent claim from which it depends.

Appellant separately argues each of dependent claims 2, 3, and 10 in the Dufresne rejection (Brief, pages 9-10). Even if the examiner considers that claims 11 and 12 were not properly argued, the examiner gives no excuse for not treating claims 2, 3, and 10. Similarly, appellant separately argues each of claims 2-4 and 6-9 in the Pfeiffer rejection (Brief, pages 11-13). Even if the examiner considers that claims 11-13, 15, and 16 were not properly argued, the examiner gives no excuse for not treating claims 2-4 and 6-9. The fact that some claims are not properly argued and could be

Appeal No. 95-0953  
Application 07/976,328

grouped to stand or fall together according to 37 CFR § 1.192(c)(5) does not excuse failing to treat claims that are properly argued. As discussed, claims 11 and 12 in the Dufresne rejection and claims 11-13, 15, and 16 in the Pfeiffer rejection were properly argued.

The examiner also criticizes how claims 9 and 17 are argued in the Dufresne rejection and how claims 9, 10, and 17 are argued in the Pfeiffer rejection (Examiner's Answer, page 4). Appellant states that claim 17 is grouped with claim 9 both in the grouping of claims for the Dufresne rejection (Brief, page 4) and in the argument (Brief, page 10). It is clear that claim 17 is grouped to stand or fall with claim 9 in the Dufresne rejection. Appellant also states that claims 10 and 17 are grouped with claim 9 both in the grouping of claims for the Pfeiffer rejection (Brief, page 4) and in the argument (Brief, pages 13 and 14). It is clear that claims 10 and 17 are grouped to stand or fall with claim 9 in the Pfeiffer rejection. The fact that the argument section mentions the limitations of the claims does not affect the claim grouping. The examiner's confusion with respect to claim 17 in the Dufresne rejection and claims 10 and 17 in the

Appeal No. 95-0953  
Application 07/976,328

Pfeiffer should produce the intended result that these claims stand or fall together with claim 9; it is not an excuse to treat all of the other dependent claims as standing or falling together.

Technically, the case should be remanded to the examiner for more fact finding with respect to the dependent claims. However, since this appeal is several years old and since the rejections of all claims are based on anticipation which is strictly a fact question, we will make the findings in the first instance.

#### Dufresne

Appellant argues that Dufresne does not have a "transducer . . . positioned within the same acoustic pathway as employed for acoustic auscultation" (emphasis added), as recited in claim 1. Dufresne describes the transducer is "located along the acoustic sound transmission path, typically in or very near the chestpiece" (emphasis added) (col. 4, lines 50-52). Appellant argues that the term "within" to describe the transducer location patentably distinguishes from Dufresne's description of "along" to describe the location (Brief, page 6). We disagree.

Appeal No. 95-0953  
Application 07/976,328

The term "acoustic pathway" is used four times in claim 1 and requires definition. The specification defines an "acoustic pathway" as follows (page 5, lines 10-13): "An acoustic pathway 25 in the chestpiece proceeds from diaphragm 27 into chamber 24 and into hollow, preferably detachable, stem 22." As the examiner observes (Examiner's Answer, pages 8-9), claim 1 does not define the structure of the acoustic pathway, such as a diaphragm chamber, an aperture in communication with the diaphragm chamber, a tubular passage in the chestpiece stem, etc. The acoustic pathway is broadly all of the hollow volume extending from the diaphragm to the earpieces.

The limitation of "a stethoscope housing forming an acoustic pathway for acoustic auscultation" reads on the upper piece in figures 5 and 6, identified for convenience as element 26 (26 actually refers to the raised center portion). The key to this rejection is recognizing that the cavity for accepting the lower piece in figures 5 and 6, identified for convenience as element 36 (36 actually refers to the bottom surface of the chestpiece), and the opening 38 for connecting tube 16 are "an acoustic pathway for acoustic auscultation."

Appeal No. 95-0953  
Application 07/976,328

The acoustic pathway is not structurally defined in claim 1 as extending from the diaphragm. The acoustic pathway consisting of the cavity and opening 38 in element 26 of Dufresne corresponds to the portion of the pathway beginning at the top of chamber 24 in appellant's figure 2, although, again, the structure of the acoustic pathway is not recited

The limitation of "a mounting having at least one opening to permit passage of sound in the acoustic pathway" reads on the lower piece in figures 5 and 6, identified as element 36. Element 36 is inserted into the acoustic pathway (the cavity in the upper piece 26) in essentially the same way as appellant's mounting 35 is inserted into the acoustic pathway 25. The "opening to permit passage of sound in the acoustic pathway" reads on the "acoustic passage 44 [which] allows for the simultaneous transmission of acoustic signals" (col. 6, lines 38-39). Passage 44 in Dufresne corresponds to appellant's opening 39 in figure 4. The acoustic to electrical transducer, microphone 42, is "residing within the mounting."

Because the mounting (element 36) holding the transducer 42 is located within the acoustic pathway (the

Appeal No. 95-0953  
Application 07/976,328

cavity in element 26) in Dufresne, the transducer in Dufresne is "within the acoustic pathway and positioned within the same acoustic pathway as employed for acoustic auscultation" in the same sense as appellant's transducer is within the acoustic pathway. Although the transducer 42 and the opening of 44 in Dufresne are slightly offset, appellant's openings 39 are also slightly offset from the transducer. It may be easier to visualize the explanation by considering if appellant's mounting 35 was located along the vertical centerline in figure 4 instead of in the angularly disposed stem as shown. Then the transducer is centered at the top of the chamber 24 and the openings 39 are immediately adjacent to the transducer as in Dufresne.

Appellant argues that the term "within" to describe the transducer location patentably distinguishes from Dufresne's description of "along" to describe the location (Brief, page 6). In our opinion, the transducer in Dufresne is shown within the acoustic pathway in the same sense as appellant's invention because the mounting holding the transducer is within the acoustic pathway. The term "along" is not controlling. Thus, appellant's arguments are not persuasive.

Appeal No. 95-0953  
Application 07/976,328

Appellant argues that microphone 42 in Dufresne is "located outside of the same acoustical pathway 44 as used for acoustic auscultation" (Brief, page 6). Again, the transducer in Dufresne is within the acoustic pathway in the same sense as appellant's invention because the mounting holding the transducer is within the acoustic pathway in the upper piece 26. To the extent the transducer is outside the acoustic pathway of opening 44, appellant's transducer in figure 4 is also outside the same acoustic pathway because the opening is to one side of the transducer. Thus, appellant's arguments are not persuasive.

Appellant argues that the transducer in Dufresne picks up different sounds through a variety of acoustic effects due to its location than is transmitted for acoustic auscultation and that appellant's transducer "'hears' the same sound as is acoustically transmitted to the health care practitioner" (Brief, page 7) because the transducer is located within the same acoustic pathway. Appellant argues that "Appellant's drawings illustrate positioning of transducer within acoustic pathway 25, wherein the sound wave is impinging on the transducer in the exact same propagation direction as the

Appeal No. 95-0953  
Application 07/976,328

sound progression for acoustic auscultation leading to the user's ears" (Brief, page 7). The term "within" does not capture any structural limitations about the transducing surface being oriented normal to the sound waves or the nature of the sound. Appellant's arguments are not commensurate in scope with the claim language.

Claim 1 lastly recites "whereby the same pathway of sound is used to receive both acoustically transmitted information and electrically generated information from the stethoscope chestpiece." This appears to refer to the fact that the disclosed invention has a cable 31 in the acoustic pathway that carries the electrically generated information produced by the transducer (specification, page 5). Normally, a whereby clause describes the operation or cooperation of the preceding limitations, but here no cable or structure for carrying electrically generated information is recited. Thus, the statement about receiving "electrically generated information" appears to be a statement of intended use. In any case, Dufresne discloses that "[e]lectrical wires transmit the processed electrical signal within and along connecting

Appeal No. 95-0953  
Application 07/976,328

tube 16" (col. 5, lines 4-5), which meets the limitations of the whereby clause.

For the reasons stated above, the rejection of claim 1 is sustained. Claim 9 recites the chestpiece of claim 1 plus binaural tubing and an earpiece assembly, which additional structure is clearly shown in Dufresne. Claim 17 is argued to stand or fall together with claim 9. Therefore, the rejection of claims 9 and 17 are also sustained.

The acoustic pathway in Dufresne is not regular in shape and thus we find that the transducer is not coaxially disposed as recited in claims 2 and 11. The transducer in Dufresne is manifestly not in the stem of the chestpiece as recited in claims 3 and 12. The examiner does not point out where Dufresne shows an electrical connector as recited in claim 10. For these reasons, the rejection of claims 2, 3, and 10-12 is reversed.

#### Pfeiffer

We agree with appellant that the mounting of the transducer in the wall of the acoustic pathway in Pfeiffer is not "within the acoustic pathway and positioned within the same acoustic pathway as employed for acoustic auscultation."

Appeal No. 95-0953  
Application 07/976,328

The meaning of "within" does not appear broad enough to encompass structure mounted within a wall without undue straining; for example, it is not clear that a doorway opening to a room is "within" the room. Therefore, the rejection of claims 1-4, 6-13, and 15-17 over Pfeiffer is reversed.

CONCLUSION

The rejection of claims 1, 9, and 17 over Dufresne is sustained and the rejection of claims 2, 3, and 10-12 over Dufresne is reversed.

The rejection of 1-4, 6-13, and 15-17 over Pfeiffer is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES D. THOMAS )  
Administrative Patent Judge )  
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Appeal No. 95-0953  
Application 07/976,328

	)	BOARD OF PATENT
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MICHAEL R. FLEMING	)	
Administrative Patent Judge	)	

Appeal No. 95-0953  
Application 07/976,328

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