

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte DENNIS F. ARMIJO and MOHSEN SHAHINPOOR

Appeal 2007-1096
Application 10/872,181
Technology Center 3700

Decided: April 20, 2007

Before DONALD E. ADAMS, ERIC GRIMES, and
RICHARD M. LEBOVITZ, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-4, 14, and 15. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF CASE

The claimed subject matter relates to anti-snoring devices and methods.

Normally, the muscles of the upper part of the throat keep the airway open to permit air flow into the lungs. When the muscles of the soft palate at the base of the tongue and the

uvula (the small fleshy tissue hanging from the center of the back of the throat) relax and sag, the relaxed tissues may vibrate as air flows past the tissues during breathing, resulting in snoring. Snoring affects about half of men and 25 percent of women--most of whom are age 50 or older.”

(Nelson,¹ col. 1, ll. 27-34.)

Many different devices, methods, drugs, and surgical procedures have been utilized to treat snoring (Specification 1: 18-19). Surgical procedures “are rather drastic, painful, and expensive and do have their own risks.” (*Id.* at 2: 15-16). “The mouthpiece devices are also inconvenient and hard to wear and maintain during sleep. Drugs and medications have also been ineffective.” (*Id.* at 2: 18-20.)

“[T]he present invention offers an anti-snoring device that is affixed to the soft palate or uvula by piercing.” (*Id.* at 2: 21-22.) “This invention is generally related to a prosthesis that inhibits fluttering of the soft palate during sleep, as air flows past it.” (*Id.* at 3: 8-9.)

Claims 1-4, 14, and 15 are pending and stand rejected over prior art (Br. 4). The Examiner relies on the following references as evidence of unpatentability:

Pflueger	US 2004/0134491	Jul. 15, 2004 (filed Jul. 22, 2003).
Nelson	US 6,955,172 B2	Oct. 18, 2005 (filed Sept. 6, 2002).

Claims 1, 3, 14, and 15 stand rejected under 35 U.S.C. § 102(e) as anticipated by Nelson (Answer 3). Claims 2 and 4 stand rejected under

¹ U.S. Pat. 6,955,172 B2, issued Oct. 18, 2005 (filed Sept. 6, 2002).

35 U.S.C. § 103 as obvious over Nelson in view of Pflueger (Answer 4). Within each rejection, the claims stand or fall together because Appellants have not separately argued any individual claims. We select claims 1 and 2, respectively, as representative of each rejection for the purpose of deciding this appeal. 37 C.F.R. § 41.37(c)(1)(vii). Claims 1 and 2 read as follows:

1. An apparatus for treating snoring caused by fluttering of the uvula and soft palate, the apparatus comprising:
 - a stiffening member configured to be affixed and substantially adjoined to a predetermined portion of the uvula and soft palate;
 - at least one piercing post for affixing and adjoining said stiffening member; and
 - a backing for each piercing post from the at least one piercing post for keeping said stiffening member in place and for providing a predetermined pressing force of said stiffening member to the uvula and the soft palate.
2. The apparatus of claim 1 wherein said stiffening member comprises a mesh-like material.

CLAIM INTERPRETATION

The claimed apparatus is for “treating snoring caused by fluttering of the uvula and soft palate.” Claim 1 comprises three elements: 1) a “stiffening member,” 2) “at least one piercing post,” and 3) a “backing for each piercing post.”

The purpose of the claimed apparatus is to inhibit fluttering of the uvula and/or soft palate (Specification 3: 30-31; 5: 11-13). To achieve this, the Specification states that the “stiffening member” covers a portion of the uvula and/or soft palate and is compressed against the uvula and/or soft palate (*id.* at 6: 24-27). We interpret the stiffening member in the context of

the Specification to be a structure which is capable of covering a part of the uvula or soft palate, and to be compressed against it.

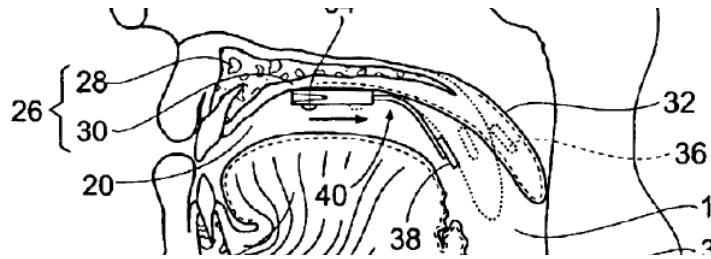
The “backing” member is for attaching the “at least one piercing post” to the uvula and soft palate. The claim requires that it keep the stiffening member “in place” and provide “a predetermined pressing force of said stiffening member to the uvula and the soft palate.” The Specification states that the “pressing force” is to compress the stiffening member against the uvula and/or soft palate in order to inhibit the uvula and soft palate fluttering (*id.* at 6: 8-12 and 24-30) that causes snoring. Thus, we interpret the “pressing force” to be a force which is sufficient to compress the stiffening member against the uvula or soft.

THE PRIOR ART

Nelson describes systems and methods “for moving and/or restraining tissue in the upper respiratory system . . . for the treatment of . . . snoring . . . and obstructive sleep apnea.” (*Nelson*, col. 1, ll. 8-12.)

The system employs at least one primary magnet 36 and at least one secondary magnet 38. Together, the magnets 36 and 38 serve to position, stabilize and maintain a preferred orientation of tissue in an oral cavity and airway in both humans and animals. By moving and stabilizing tissue in a desired location and shape, the system mediates or prevents the obstruction of the upper airway that results in sleep-related breathing disorders.

(*Id.* at col. 6, ll. 58-65).



As shown in Fig. 3B (above), a primary magnet (36) is attached to the uvula (32) (*id. at col. 7, ll. 52-60*). The secondary magnet (38) is “carried by . . . less mobile tissue (i.e., the upper teeth) along the roof of the mouth.” (*Id. at col. 7, ll. 61-63.*)

Several different embodiments of the primary magnet are illustrated in Nelson. These include:

a primary round magnet (Fig. 4A) with a stud (42) that fits into a pierced hole (44) and a backing plate (46) to lock the magnet to the soft palate and uvula (Nelson, col. 8, ll. 29-38),

a concave primary magnet (36A) configured “to approximate the contour of the anterior surface of the uvula” (*id. at col. 8, l. 63 to col. 9, l. 3; Fig. 8*), and

a primary magnet (36B) having “a bowed configuration to approximate the contour of the arch of the soft palate” (*id. at col. 9, ll. 8-11; Fig. 10a*).

A “backing plate” can be used to “secure attachment” of the primary magnet to the soft palate (*id. at col. 8, ll. 35-36; col. 9, ll. 14-23; Fig. 4A; Fig. 11*).

DISCUSSION

Anticipation by Nelson

Claims 1, 3, 14, and 15 stand rejected under 35 U.S.C. § 102(e) as anticipated by Nelson (Answer 3). The Examiner states that Nelson describes an apparatus for treating snoring that meets the requirements of claim 1. According to the Examiner, Nelson's apparatus comprises a stiffening member (36) configured to be affixed to a predetermined portion of the uvula and soft palate, a piercing post (44)^[2] for affixing and adjoining said stiffening member, and a backing (46) for the piercing post for keeping said stiffening member in place and providing a predetermined pressing force of said stiffening member to the uvula and the soft palate.

(Answer 3.)

A claim is anticipated if all of the elements and limitations of the claim are described in a single prior art reference. We agree with the Examiner that Nelson's apparatus describes all the requirements of claim 1, anticipating the claimed invention. As pointed out by the Examiner, Nelson's primary magnet comprises all three elements of claim 1, including a primary magnet (36) which acts as a "stiffening member," a stud (42) which corresponds to a "piercing post," and a backing (46). (*See supra* at pp. 4-5; Nelson at col. 8, ll. 29-38; Figs. 4A, 10a, 8, and 11.)

Appellants argue that the "basic functionality" of Nelson is "significantly different" from the invention because Nelson utilizes magnets

² Piercing post (44) of Nelson is actually the pierced hole through which a "stud" (42) is placed (Nelson at col. 8, ll. 29-36).

“to attract or repulse a part of the oral cavity to keep a person from snoring and prevent sleep apnea.” (Br. 8.) “The operative element of the present invention is to keep the soft palate or uvula from fluttering by pressing a stiffening member against the fluttering uvula.” (*Id.*)

We recognize that Nelson’s system utilizes magnets to move and stabilize the uvula and soft palate for treating sleep-related breathing disorders, such as snoring and sleep apnea. However, at the same time, the primary magnet employed in Nelson’s system meets all the limitations of the apparatus of claim 1. We have interpreted the “stiffening member” to be capable of covering part of the uvula and being compressed against the uvula. (*See supra* at p. 3.) Figs. 4A, 8, 10a, and 11 of Nelson show a primary magnet that covers part of the uvula and which would be compressed against it when attached by the stud (42) [“at least one piercing post”] to the backing plate (46). Thus, claim 1 is satisfied by Nelson. The “comprising” language of the instant claim opens it to other elements allowing the presence of the secondary magnet described by Nelson.

Appellants also argue that Nelson does not “discuss, imply or suggest any predetermined amount of pressing force to press the appliance against the uvula as specifically claimed in the present invention. . . . Nelson . . . merely uses the piercing [post] to hold the magnetic appliance in place, nothing more.” (Br. 8.)

We do not agree. Claim 1 requires that the backing is “for providing a predetermined pressing force of said stiffening member to the uvula and soft palate.” As we have interpreted this phrase, the “pressing force” must be sufficient to compress the stiffening member against the uvula or soft palate

(*supra* at p. 4). The purpose of Nelson's backing member is to "secure" the magnet to the soft palate (e.g., Nelson, col. 9, ll. 5-7). This would necessarily involve a force to hold the magnet against the uvula. The specification does not describe any special attribute or numerical magnitude associated with the claimed "pressing force" that would expressly distinguish it from Nelson's *securing* force. Consequently, the Examiner reasonably presumed that securing the magnet to the uvula as required by Nelson would involve a "predetermined pressing force to keep the apparatus in place" (Answer 5). The Examiner concluded that Nelson's system "does provide a pressing force and prevents fluttering of the uvula" (*id.*).

When the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing patentability is possessed by the prior art, "it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); *In re Best*, 562 F.2d 1252, 1254-55, 195 USPQ 430, 433-34 (CCPA 1977). See also *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Having shown that Nelson's primary magnet has the same structure as the claimed apparatus, we find that the Examiner properly shifted the burden to Appellants to prove that it would not perform the same function as claimed when installed in the uvula. On this point, we find no evidence in the record rebutting the Examiner's reasonable presumption.

Appellants argue that the specification describes how to "optimize" the amount of "pressing force for the invention." (Br. 12.) However, this

written description does not define an amount of “pressing force” nor any way for the Examiner to have determined that securing Nelson’s backing to the primary magnet would not meet the claimed limitation of a “predetermined pressing force.” The Examiner has not ignored this limitation as asserted by Appellants (Reply Br. 2), but has reasonably presumed that securing the backing to the magnet would satisfy the claimed limitation (Answer 5). Thus, contrary to Appellants’ arguments (Reply Br. 4), the Examiner has provided an explanation for her position. Having established *prima facie* anticipation of the claimed subject matter, the Examiner properly shifted the burden to Appellants to prove otherwise. *Spada*, 911 F.2d at 708, 15 USPQ2d at 1658; *In re King*, 801 F.2d 1324, 1327, 231 USPQ 136, 138-39 (Fed. Cir. 1986). We find no evidence in the record before us to distinguish the claimed “pressing force” from the *securing* force utilized in Nelson.

It is also urged by Appellants that Nelson’s member 36 is not a stiffening member as required by the claims (Br. 9). As we have interpreted this element, a stiffening member must be capable of covering part of the uvula and pressing against the uvula when held in place by the “backing.” Nelson clearly shows primary magnets that are pressed against the uvula, including magnets that are configured to the uvula’s shape (Nelson, Figs 8 and 10a). Thus, we agree with the Examiner’s determination that Nelson’s primary magnet encompasses the claimed stiffening member.

For the foregoing reasons, we affirm the rejection of claim 1. Because they were not separately argued, claims 3, 14, and 15 fall with claim 1.

Obviousness in view of Nelson and Pflueger

Claims 2 and 4 stand rejected under 35 U.S.C. § 103(a) as obvious over Nelson in view of Pflueger. The Examiner asserts that

Nelson does not disclose a stiffening member of a mesh-like material or that is configured to conform to a shape of the predetermined portion. Pflueger . . . disclose an apparatus for treating snoring comprising a stiffening member of a mesh-like material (Figure 10) that is configured to conform to a shape of the predetermined portion (paragraph 107). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the anti-snoring apparatus disclosed by Nelson wherein the stiffening member is of a mesh-like material and can conform to a shape of the predetermined portion, as taught by Pflueger, to provide flexibility and comfort to the user.

(Answer 4-5.)

Appellants contend that the “structure and method of the invention” differ “materially from the structure and method disclosed” in the cited references (Br. 13).

The Examiner bears the initial burden of showing unpatentability.

In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness requires evidence that those skilled in the art would have been motivated to combine the prior art and that there would have been a reasonable expectation of success in doing so. See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1443 (Fed. Cir. 1991). Here, we find that the Examiner has provided cogent reasoning for combining the cited references. Appellants argue that the rejection is improper, but fail to identify a specific defect in the Examiner’s case. Since we find none, we affirm the rejection of claims 2 and 4.

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TIME PERIOD

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

AFFIRMED

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