

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 DAVID D. KONIECZNSKI, THOMAS V. DOHERTY,
ALEXANDER GRINBERG, and ERIC D. KOLB

Appeal 2007-1707
Application 10/335,597
Technology Center 3733

DECIDED: May 16, 2007

Before DONALD E. ADAMS, TONI R. SCHEINER, 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 1-3 and 5-11. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-part.

STATEMENT OF CASE

The claimed invention relates to a bone plate comprising a resilient aperture. According to the specification, “[b]one fixation devices are useful for promoting the proper healing of injured or damaged vertebral bone

segments caused by trauma, tumor growth, or degenerative disc disease.”
(Specification 1: 17-18.)

One type of external bone fixation device is an osteosynthesis plate, more commonly referred to as a bone plate, that can be used to immobilize adjacent skeletal parts such as vertebral bones. . . . The plate is fastened to the respective bones, using anchors such as bone screws, so that the plate remains in contact with the bones and fixes them in a desired position.

(Specification 1: 25-30.)

[S]ome bone screws and bone plates are constructed such that the bone plate is placed onto the intended area to be fixed, and then the bone screws are inserted through the plate to secure the plate to the bone segments. In other bone plate and screw systems, the screws are inserted into the bone segments first, then the plate is secured to the screws.

(Specification 2: 10-14.)

The claimed invention provides a bone plate comprising a “resilient aperture” that can “expand and contract” to receive a bone screw (Specification 6: 1-9). With this feature, bone screws can be first inserted into the bone, and then the plate can be attached to the screws by inserting the screws through the “resilient aperture” which expands to permit the screw head to pass through it. This system offers “the surgeon the ability to either assemble the screws to the plate, or the plate to the screws, depending on the surgeon’s preference and the patient’s anatomical conditions.”

(Specification 3: 3-5.)

All pending claims stand rejected over prior art (Br. 2). The Examiner relies on the following evidence of unpatentability:

Nelson	US 5,381,588	Jan. 17, 1995
Assaker	WO 99/56653	Nov. 11, 1999

Claims 1-3 and 5-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Assaker (Br. 2).

Claims 1-3 and 6 stand rejected under 35 U.S.C. § 102(b) as anticipated by Nelson (Br. 2). The claims in this grouping stand or fall together because Appellants have not provided separate reasons for patentability of any individual claims. *See* 37 C.F.R. § 41.37(c)(1)(vii).

We select claim 1, the only independent claim on appeal, as representative of each rejection. Claim 1 reads as follows:

1. A bone plate comprising:
a body including a first surface, a second, bone-contacting surface opposed to the first surface, and at least one resilient aperture extending through the first and second surfaces, the at least one resilient aperture having a predefined shape and size, and being configured to expand and contract for receiving a bone screw.

DISCUSSION

Anticipation by Assaker

Claims 1-3 and 5-11 stand rejected under 35 U.S.C. § 102(b) as anticipated by Assaker.

Assaker discloses an anterior cervical bone plate with bone anchorage screws for attaching the plate to bone (Assaker, p. 2, ll. 6-15). The bone plate comprises an aperture (12) for an anchorage screw (6), and a sliding

plate (22) which is “slidably mounted” on the bone plate enabling it to slide over the anchorage screw head (15) to lock the screw into place (Assaker, p. 2, ll. 9-23; p. 6, ll. 8-19; Fig. 2).

The Examiner contends that the aperture (12) through which the anchorage screw fits combined with the sliding plate (22) is a “resilient aperture” which is “configured to expand and contract for receiving a bone screw” as required by claim 1 (Answer 4). The Examiner explains that “Assaker clearly disclose an aperture which is defined in part by a slide 22 that alters the configuration of the aperture depending on its position. . . . [O]ne common definition of resilient refers to an ability to ‘adjust easily’¹¹, which the device of Assaker clearly possesses” (Answer 4).

Appellants contend that

Assaker discloses a bone plate that utilizes a locking mechanism to engage a bone screw. In particular, as shown above in Figure 2, the bone plate includes a pair of large cavities with a number of apertures therein that accommodate screws for affixing the bone plate to bone. Each cavity includes a slide (22) that slides over a portion of the opening of the cavity to reveal or hide portions of the cavity that may accommodate screws. When the slide (22) is in an open position, a bone screw can be inserted through the aperture. The slide (22) can then be moved to a closed position to engage the screw. Accordingly, the aperture itself does not expand and contract, as suggested by the Examiner, but rather a portion of the aperture is covered by the slide. The actual size of the aperture always *remains the same*.

(Br. 3.)

This rejection turns on the interpretation of the claimed “resilient aperture . . . being configured to expand and contract for receiving a bone screw.” To properly interpret the phrase, we first turn to the Specification

for guidance because claims are interpreted in view of the specification as they would be understood by one of ordinary skill in the art. *In re Crish*, 393 F.3d 1253, 1256, 73 USPQ2d 1364, 1367 (Fed. Cir. 2004). As explained in the Specification, the “invention” provides

single-component bone screws and bone plates that offer the surgeon the ability to either assemble the screws to the plate, or the plate to the screws. . . . With this invention, the surgeon is given intraoperative flexibility regarding the approach taken when applying the system, allowing the clinician to use either a plate first or anchors first approach with the same screws and plate. . . . [T]he bone screws and bone plates can include material resilience features to allow expansion/contraction during assembly to enable bi-directional attachment one another.

(Specification 3: 3-11.)

Figs. 11-12 of the Specification illustrate a bone plate with a resilient aperture. The aperture is characterized as a “resilient aperture” – the same phrase recited in claim 1 – having “material resilience.” (Specification 23: 10-11.) The “material resilience” enables the aperture to stretch (“expand”) over the screw head when the bone plate is forced over it, and then to contract back around it, holding the bone plate in place. In other words, it is the aperture material, itself, which possesses the resilient property.

The term “resilient” is not defined in the Specification. However, the Examiner finds that “resilient” means “adjusts easily” (Answer 4). In the context of the Specification which describes the resilient aperture as having “material resilience,” we interpret “resilient aperture” to mean that aperture “adjusts easily” to force by being comprised of a material capable of expanding and contracting.

In sum, when read in the light of the Specification, the skilled worker would understand that it is the aperture, itself, which is “resilient” and “configured to expand and contract” as required by the claim. The purpose is to enable bi-directional assembly, permitting 1) the screws to be inserted and held securely (Specification 3: 20) by the bone plate for an “anchors first approach” or 2) to enable the bone plate to snap on to screws which have already been attached to the bone (Specification 2: 9-16). In the latter approach, the resilient aperture expands to accommodate the screw head, and then returns to its original form after having been stretched.

Having properly interpreted the claim, we can now turn to the anticipation rejection. The aperture shown in Assaker does not “expand and contract” as required by the claim. Its dimension changes when the slide is pushed over it, but this change is caused by a “sliding plate” which modifies the size of the aperture after the screw has been secured to the bone. The aperture structure, itself, is not resilient and does not change in size. The PTO’s mandate is to give the words in a claim their “broadest reasonable meaning in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant’s specification.” *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). The Examiner’s conclusion that the Assaker’s sliding plate configuration is a “resilient aperture” is not based on a *reasonable* meaning of the claim term when read in light of the Specification. Thus, the Examiner erred in interpreting claim 1.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because Assaker does not describe a bone plate comprising a “resilient aperture . . . being configured to expand and contract for receiving a bone screw,” we find that it does not anticipate claim 1. We reverse the rejection of independent claim 1 and dependent claims 2, 3, and 5-11.

Anticipation by Nelson

Claims 1-3 and 6 stand rejected under 35 U.S.C. § 102(b) as anticipated by Nelson.

Nelson describes a retaining device to hold a pair of socks for washing and drying (col. 1, ll. 40-45). The Examiner contends that Nelson’s device meets all the limitations of claim 1.

Nelson discloses a plate comprising a body 1 including first and second surfaces (see Figure 2), and at least one resilient aperture 3 extending through the first and second surfaces. The at least one aperture has a predefined shape and size and is configured to expand and contract. The plate also has at least one slit extending from the aperture 3, and a hole 112. The aperture has a circular shape (see Figures 1 and 2).

(Answer 4.)

Appellants contend that Nelson cannot anticipate claim 1 because “Nelson lacks any mention or suggest of a bone plate” (Br. 6). They assert that “it must be shown that Nelson’s sock rack can be utilized as a bone plate” (Br. 6). They also argue that “[e]very object that has a resilient

aperture extending through the first and second opposed surfaces and configured to expand and contract cannot be considered to be a ‘bone plate’” (Reply Br. 5).

Although we recognize that Nelson’s sock retaining device is for a different purpose than the claimed bone plate, it has the same structural features as the claimed bone plate: a plate and a resilient aperture configured to expand and contract. Based on the correspondence of structures between Nelson’s device and the claimed invention, the Examiner put the burden on Appellants¹ to show that their bone plate is the same as Nelson’s sock retaining device.

In our opinion, the Examiner has sound basis for asserting that the claimed invention and Nelson’s sock retainer are the same, properly shifting the burden to Appellants to show they are not.

The claim does not require the bone plate to have a particular size, shape, or configuration. According to the Specification, a bone plate is “[t]ypically . . . a rigid metal or polymeric plate positioned to span bones or bone segments” (Specification 1: 27-28). Nelson’s sock retainer also can be comprised of a polymeric material, polyethylene (Nelson, col. 2, ll. 38-49). Appellants argue that a “bone plate” is “well known to persons skilled in the art,” but offer no explanation why Nelson’s sock retainer could

¹ “[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not. *In re King*, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); *In re Ludtke*, 441 F.2d 660, 664, 169 USPQ 563, 566 (CCPA 1971).” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

not function as a bone plate nor do they present evidence which describes the requirements of a bone plate (Reply Br. 5), distinguishing it from Nelson's sock retainer.

Neither we nor the Examiner are in a position to conclude that the properties which characterize Nelson's sock retainer (e.g., its materials and dimensions) would make it unsuitable as a bone plate. Appellants had the opportunity to offer evidence and arguments that Nelson's sock device cannot be used as a bone plate and would not be recognized as such, but provide only conclusory statements² which we find insufficient to overcome the *prima facie* case of anticipation.

Appellants have not met their burden of rebutting the Examiner's *prima facie* case of anticipation, thus, we affirm the rejection of claim 1. Claims 2, 3, and 6 fall with claim 1 because they were not argued separately. In reaching this decision, we are not ignoring or failing to treat the phrase "bone plate" as a claim limitation; we are just not persuaded by the evidence before us that Nelson's device could not perform this function.

² Arguments of counsel cannot take the place of evidence lacking in the record. *Estee Lauder Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 593, 44 USPQ2d 1610, 1615 (Fed. Cir. 1997).

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TIME PERIOD

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

AFFIRMED-IN-PART

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NUTTER MCCLENNEN & FISH LLP
WORLD TRADE CENTER WEST
155 SEAPORT BOULEVARD
BOSTON MA 02210-2604