

UNITED STATES PATENT AND TRADEMARK OFFICE

---

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

---

*Ex parte* TOM M. SCHOSSAU

---

Appeal 2007-3862  
Application 10/268,307  
Technology Center 3700

---

Decided: November 9, 2007

---

Before TONI R. SCHEINER, ERIC GRIMES, and RICHARD M. LEBOVITZ, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is a decision on appeal from the Examiner's final rejection of claims 82-110. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

**STATEMENT OF THE CASE**

The claims are directed to a keratome knife for corneal surgery. The knife has multiple wedge-shaped sharply pointed blade tips. The knife can be utilized by an eye surgeon to cut an incision into the cornea prior to inserting an intraocular lens (Specification 3-4). According to the Specification, multiple wedge-shaped blade tips produce self-sealing corneal incisions (Specification 5). The Specification states that the advantage of a

Appeal 2007-3862  
Application 10/268,307

self-sealing incision is that it “shortens the [surgical] process significantly, which . . . results in less trauma to the eye and streamlines the entire procedure” (Specification 5).

Claims 82-110, which are all the pending claims, are appealed (Appeal Br. 4). Appellant seeks review of the following rejections:

Claims 82-110 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yolles (U.S. Pat. No. 2,647,310, Aug. 4, 1953) (Answer 4-5);

Claims 91-108 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement (Answer 3);

Claims 91-108 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite (Answer 4).

For the rejection under § 102, we select claim 82 as representative of the appealed claims; for the rejections under § 112, first and second paragraphs, we select claim 91 and 100 as representative. Claims 82, 91, and 100 read as follows:

82. A keratome knife for use by a surgeon to cut into a cornea of an eyeball of a living being, said keratome knife having multiple wedge-shaped sharply pointed blade tips rigidly affixed to one another for simultaneously making small incisions that are connected together in one surgical stroke, each wedge-shaped blade tip having a pair of non-serrated blade edges configured to make self-sealing corneal incisions as said surgeon cuts into the cornea of said keratome knife.

91. A keratome knife for use by a surgeon to cut into a cornea of an eyeball of a living being, said keratome knife consisting of two multiple wedge-shaped sharply pointed blade tips rigidly affixed to one another for simultaneously making small incisions that are connected together in one surgical stroke, each wedge-shaped blade tip having a pair of non-serrated blade edges meeting at a frontal keratome knife portion and configured to make self-sealing corneal incisions as said surgeon cuts into the cornea of said eyeball with said keratome knife.

100. A keratome knife for use by a surgeon to cut into a cornea of an eyeball of a living being, said keratome knife consisting of two or three multiple wedge-shaped sharply pointed blade tips rigidly affixed to one another for simultaneously making small self-sealing incisions that are connected together in one surgical stroke, each wedge-shaped sharply pointed blade tip having a pair of non-serrated blade edges meeting at a frontal keratome knife portion and configured to make self-sealing corneal self-sealing incisions as said surgeon cuts into the cornea of said eyeball with said keratome knife, and wherein each wedge-shaped sharply blade tip points anteriorly and has said pair of blade edges diverging from a distal forward end of said keratome knife.

#### REJECTION UNDER § 102

Claims 82-110 stand rejected under 35 U.S.C. § 102(b) as anticipated by Yolles.

##### *Findings of Fact*

The Yolles patent

1. Yolles describes a spoon for cutting into foods, fruits, and melons (Yolles, at col. 1, ll. 1-4). The “spoon is well adapted for use in eating grapefruit” (Yolles, at col. 1, l. 50 to col. 2, l. 1). The spoon can be used for removing sections of the fruit (Yolles, at col. 2, ll. 25-27).
2. The spoon is provided with multiple “entrance tines” that are “slender and elongated for puncturing purposes” (Yolles, at col. 1, ll. 31-32).
3. “The tines 3 are angular in shape and have their lower edges sharp as indicated by the numerals 3a and 3b for cutting purposes” (Yolles, at col. 2, ll. 17-20 and Figs. 1-2). The tines “aid in the inserting and initial cutting” of the food (Yolles, at col. 2, ll. 11-13).
4. The tines are shown in Fig. 2 of Yolles as being tapered to form a wedge (*see* Yolles, Fig. 2).

*Analysis*

Yolles describes a grapefruit spoon having multiple entrance tines that are wedged-shaped and sharpened at their edges for cutting purposes (Findings of Fact (“FF”) 1-4). The Examiner contends that the sharpened wedge-shaped entrance tines satisfy the limitations recited in claim 82 of “multiple wedge-shaped pointed blade tips,” each tip having “a pair of non-serrated blade edges” and thus finds that Yolles anticipates the claim (*see* Answer 5, 7). Appellant contends that Yolles’ grapefruit spoon is not a “keratome knife” (Reply Br. 4) and does not comprise non-serrated blade tips which are “configured to make self-sealing corneal incisions” as recited in claim 82 (Appeal Br. 17).

We begin with claim interpretation because until a claim’s scope is properly understood it cannot be determined whether the claim is anticipated by the prior art. Here, the claim is directed to a keratome knife “for use . . . to cut into a cornea of an eyeball.” The knife is “configured to make self-sealing corneal incisions.”

A keratome is a surgical knife utilized by eye surgeons to perform corrective surgery on the cornea, such as inserting an intraocular lens into the eye, removing a cataract, and relieving intraocular pressure (Specification 1-3). The structure and design of keratomes to accomplish these purposes were known in the prior art (*see* Specification 2-3, 7, and 13-14). For example, the Specification describes prior art surgical keratomes in which blade width, taper, and thickness were varied to make a corneal incision with the desired characteristics (Specification 1-3). Persons of ordinary skill in the art would thus understand that a “keratome knife” as

recited in claim 82 is a special type of knife whose structure and design is adapted to corneal surgery.

According to the Specification, wedge-shaped blade tips having non-serrated blade edges – as recited for the keratome knife of claim 82 – produce self-sealing incisions (Specification 5). The Specification explains how this works:

The IOL injector system employs novel keratome knives having multiple blade tips that create a wide incision by simultaneously making a set of several small incisions that are connected together in one stroke. The fact that each blade tip has only a limited depth to cut a flap means the resulting wide incision can be created without the need to penetrate deeply into the cornea, as would be necessary with a single-point blade of the desired width.

(Specification 5). On pages 12-13 of the Specification, the characteristics of the blade configuration utilized to produce the self-sealing incisions are described. These characteristics involve the spacing between the multiple blade tips, sharpness of the blade tips, blade taper, and blade curvature (Specification 12-13 (*see numbered paragraphs (3) through (7)*)). Thus, we find that persons of ordinary skill in the art, upon reading the Specification, would understand the limitation “configured to make self-sealing corneal incisions” to mean the structural characteristics described on pages 12-13 of the Specification.

In the context of the Specification, we interpret the claimed limitation that the knife have “blade edges [ ] configured to make self-sealing corneal incisions” to require the knife to have a particular structure which, when used by eye surgeons to cut into the eye, produces self-sealing incisions.

The Examiner infers from the similarity between the description of Yolles’ tines and the claimed blade edges that Yolles’ grapefruit spoon

would inherently be capable of making self-sealing incisions into the cornea. However, when inherency is the basis for an anticipation rejection, it is the Examiner's burden to provide sound basis for believing that the device of the prior art is the same as Appellant's device. *See In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990). Here, the Examiner has made no findings that Yolles' spoon has a structure that would enable it to be used to cut the cornea in such a way that self-sealing incisions are made – as is required by the limitations of claim 82. It is not sufficient that Yolles shows the entrance tines to be wedge-shaped (FF 4) – as recited in claim 82 – and describes them to be sharp for cutting purposes (FF 3) – as would be the “sharply pointed blade” of claim 82 – because the claim limitation that the blades are “configured to make self-sealing corneal incisions” imposes additional specific structural requirements on the blades (*see supra*; Specification 12-13) that make them useful for cutting into eyes. Because the purpose of Yolles' grapefruit spoon – to puncture (FF 2) and to cut out sections of a fruit (FF 1) – is so far afield from the purpose of the claimed keratome, we conclude that the Examiner's burden is not discharged by merely pointing, as the Examiner did, to parallels between the language used by Yolles to describe the spoon tines and the language used in claim 82 to define the claimed keratome knife.

Claims are to be given their broadest reasonable interpretation during patent prosecution as they would be understood by persons of skill in the art in light of the specification. The purpose of giving claims their broadest reasonable interpretation is to reduce “the possibility that claims, . . . will be given broader scope than is justified” by the prior art. *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (internal citations omitted). In this case, there is

no danger that the scope of claim 82 unjustifiably encroaches on the prior art because the grapefruit spoon as taught by Yolles is not a keratome knife and there is no evidence in the record that it could be used as one. The rejection of claims 82-110 is reversed.

#### REJECTIONS UNDER § 112, FIRST AND SECOND PARAGRAPH

Claims 91-108 stand rejected under 35 U.S.C. § 112, first and second paragraph.

The Examiner contends that the recitations in claim 91 of “two multiple wedge-shaped sharply pointed blades” and in claim 100 of “two or three multiple wedged-shaped sharply pointed blades” are not described in the Specification (Answer 3-4). The Examiner states that these “limitations indicate that there are more than one *multiple* wedge-shaped sharply pointed blades. However the specification and the drawings disclose either *two* wedge-shaped sharply pointed blades or *three* wedge-shaped sharply pointed blades or *multiple* wedge-shaped sharply pointed blades, not ‘two or three multiple-wedge shaped sharply pointed blades[’]” (Answer 4). The claims are rejected under § 112, second paragraph, for this same reason (Answer 4).

We will not sustain these rejections. Appellant states in the Appeal Brief that term “multiple” in claims 91 and 100 was redundant to the statement that there are “two” and “two or three” wedge-shaped blades, and was not intended to cover multiple sharply pointed blades (Appeal Br. 14). We find this explanation to be consistent with the written description of the Specification. The Examiner recognizes this as a mistake (Answer 6), yet did not permit Appellant to amend the claims after the Final Rejection in order to eliminate these issues from consideration in this appeal (*see*

Appeal 2007-3862  
Application 10/268,307

Amendment filed Aug. 15, 2006; Advisory action dated Oct. 2, 2006). In our opinion, this was an error since the Examiner acknowledges the mistake and therefore should have allowed Appellant the opportunity to correct it.

Nonetheless, to the extent that the Examiner interprets the phrase to mean two or three wedged-shaped blade tips having multiple pointed blades (Answer 4-5), we find this to be an unreasonable interpretation of the claims as they would be understood by persons of skill in the art in the context of the Specification. The rejections of claims 91-108 under 35 U.S.C. § 112, first and second paragraph, are reversed.

REVERSED

lbg

ROBERT NATHANS  
36 STAG DRIVE  
BILLERICA, MA 01821