United States Court of Appeals for the Federal Circuit

04-1505

OWEN MUMFORD USA, INC.,

Plaintiff-Appellee,

v.

SURGILANCE, INC. and SURGILANCE PTE, LTD.,

Defendants-Appellants.

DECIDED: June 7, 2005

Before MICHEL, Chief Judge, MAYER and DYK, Circuit Judges.

Opinion for the court filed by Chief Judge MICHEL. Dissenting opinion filed by Circuit Judge MAYER.

MICHEL, Chief Judge.

Plaintiff Owen Mumford USA, Inc. ("Owen Mumford") brought suit against defendants SurgiLance, Inc. and SurgiLance PTE, Ltd. (collectively, "SurgiLance") alleging infringement of U.S. Patent No. 4,869,249 (the "'249 patent"), which is directed to a medical device used to prick a patient's finger to obtain a blood sample. The device is commonly called a "pricker" and uses a spring to project the needle momentarily into the patient's finger. On Owen Mumford's motion for summary judgment, the district court concluded that the accused device infringes the '249 patent.

The appeal was submitted for decision after oral argument on April 5, 2005. The dispositive issue in this case is whether the '249 patent covers prickers that come with a spring that is already energized by being compressed. We hold that the district court erred in construing the claim term "relaxed condition of the spring means" to require that the initial condition of the spring be only "less energized" than the state of the spring at the time immediately prior to firing and that the proper construction of the term is that the spring initially have no potential energy. Because the accused device comes pre-armed, the initial condition of its spring is not relaxed. Accordingly, we reverse the district court's judgment of infringement and remand with instructions to enter judgment of non-infringement.

I

A

Claim 1 of the '249 patent recites:

> 1. A disposable pricker comprising a body, a lance, spring means acting between the lance and the body so that in a relaxed condition of the spring means the lance is in a first retracted position within the body, a cap for the body providing a passing through which the lance tip can move, a formation within the cap for engaging the lance and urging it to a second retracted position, thereby energizing the spring means, as the cap is fitted, means within the body to engage the cap formation as fitting is completed thereby to release the lance, enabling the spring means to cause momentary projection of the lance tip from the passage, and catch means holding the cap to the body when fitting is completed with the lance tip within the passage.

'249 patent, col. 4, ll. 24-37 (emphasis added).

In short, the pricker claimed in the '249 patent operates by compressing and releasing a spring, momentarily extending a needle into the patient's skin and then retracting the needle into a position that prevents additional pricking. In more detail, the

pricker claimed in the ’249 patent operates by pressing a cap onto a body. Figure 1, which depicts the body, and Figure 5, which depicts the cap, are provided below for reference. As the cap slides onto the body, the shoulders **20** engage the lancet **4** and compress the spring **3** from a relaxed to an energized condition. As the cap slides further onto the body, the flared surfaces **18** of the cap fingers **17** are pushed outward by the body projections **8** until the shoulders **20** no longer engage the lancet **4**. This point is described as the “second retracted position” in the ’249 patent. Id., col. 4, l. 30. At this point, the potential energy stored in the compressed spring **3** is converted to kinetic energy moving the needle **5** forward. The interaction of the body lugs **6** engaging the body abutments **7**, causes the lancet **4** to stop and the needle **5** to project into the cap’s cylindrical portion **16**, where it pricks the patient. Then, the potential energy stored in the extended spring **3** is converted to kinetic energy retracting the needle **5** into the body where it is held in place by, inter alia, the interaction of cap shoulders **21** and body shoulders **11**.

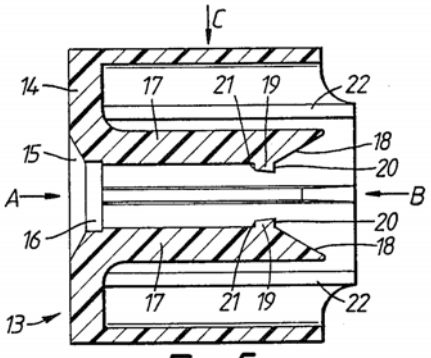

FIG. 5.

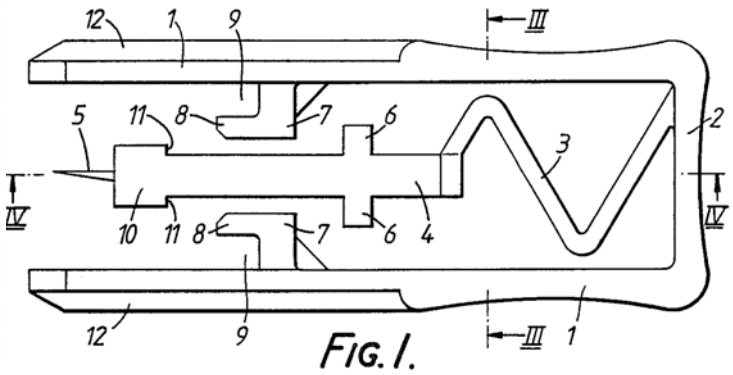

FIG. 1.

B

The accused device is a pricker manufactured by SurgiLance, called the One-Step. The One-Step is described in SurgiLance’s U.S. Patent No. 6,432,120 (the “’120

patent"), which although not directly at issue in this case provides figures depicting the pertinent characteristics of the accused device.[1]

The One-Step operates by the "triggler" **50** interacting with the lancet holder **26**, as shown in Figure 3A, which depicts the One-Step before assembly. The spring **45** acts between the lancet body **40** and the end wall **30**. During assembly, the triggler **50** is pressed into the lancet holder **26** causing the spring **45** to be compressed as the triggler ribs **56** force the lancet body **40** toward the end wall **30**. The triggler locks into the lancet body by the interaction of the triggler's L-shaped clip **62** and the elongated recess **34** on the lancet body. This locking holds the spring **45** in a compressed condition prior to shipping and use.

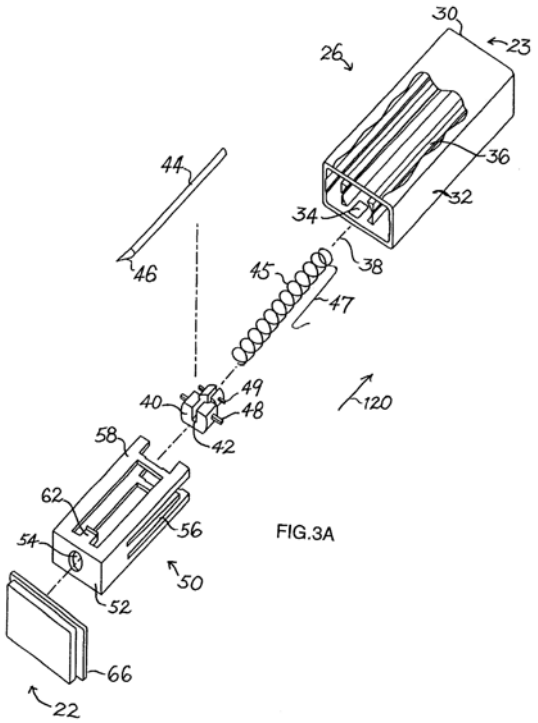

FIG.3A

[1] SurgiLance contends that the One-Step is different from the device described in the '120 patent in that the spring in the One-Step is "not attached to the lancet holder." This claimed difference, however, is not pertinent to our analysis.

To use the One-Step device, the triggler **50** is depressed through distance **41**, as shown in Figure 4D, which describes the One-Step prior to use, and Figure 4B, which describes the One-Step device at the moment the lancet temporarily projects from the lancet body after firing. The compression through distance **41** pushes the triggler ribs **56** outward until the ribs no longer engage the lancet body **40**. The potential energy stored in the compressed spring **45** is converted to kinetic energy moving the lancet **44** forward until it extends past the triggler and pricks the patient. The interaction of the triggler end wall **52** and the lancet body **40** causes the lancet to stop at which point the potential energy stored in the extended spring **45** is converted to kinetic energy causing the lancet **44** to retract within the lancet body **26**, where the lancet **44** cannot be reenergized.

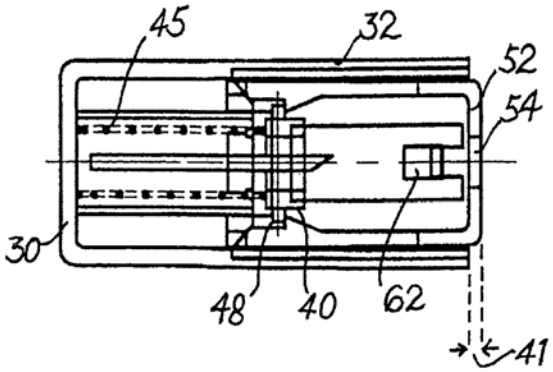

FIG.4D

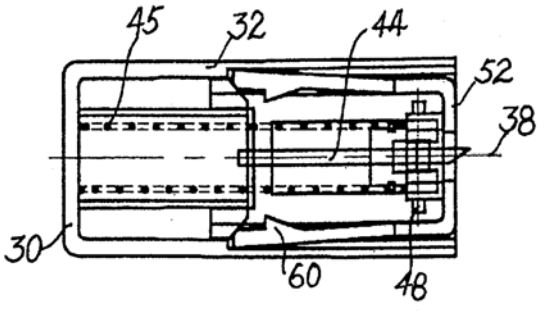

FIG.4B

C

Owen Mumford brought suit in the United States District Court for the Northern District of Georgia, alleging that the One-Step infringes the '249 patent. In September 2002, the district court construed the claims, granted summary judgment to Owen Mumford on SurgiLance's invalidity and inequitable conduct defenses, and denied without prejudice the parties' pending motions for summary judgment on infringement. In September 2003, the district court modified in part its prior claim construction, reaffirmed the invalidity and inequitable conduct decision, and granted summary judgment of infringement to Owen Mumford. Final judgment of infringement was entered in June 2004.

SurgiLance timely appealed and we have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

A

SurgiLance's primary claim construction argument is that the district court erred in construing the phrase "spring means acting between the lance and the body so that in a relaxed condition of the spring means the lance is in a first retracted position within the body" from claim 1 of the '249 patent. '249 patent, col. 4, ll. 25-27. SurgiLance contends that the term "relaxed condition" refers to a state "free of tension" or "non-energized."

In the 2002 order, the district court held, and the parties continue to agree, that this phrase is styled in means-plus-function format. The district court identified two functions for this means-plus-function limitation, which are that the structure "(1) acts

between the lance and the body, and (2) retains the lance in a first retracted position within the body." As to the term "relaxed condition," which is contained within the phrase in question, the district court concluded that neither the intrinsic record nor the prosecution history provided guidance in construing the term "relaxed condition." The district court instead referred to a general usage dictionary definition, stating that "[t]he dictionary definition of the verb 'relax' indicates that the term embodies some relativism: 'to make less tense or rigid,' 'lessen the tension or pressure,' and 'to abate in intensity.' *See* WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1917 (3rd Ed. 1986)." Based on this definition, the district court construed the term "relaxed condition" as requiring only a relatively "less energized" state: "The 'springs mean' [sic] limitation is, therefore, interpreted to cover a spring, whether zig-zag or coiled, that regains its original shape after being compressed or extended, that functions between the body and the lance that is in an initial state less energized than a second, extended state of the spring, as well as its equivalents under section 112."

In its 2003 order, the district court again addressed its construction of the term "relaxed condition," but found "no good cause to disturb its prior construction of 'spring means'" related to the relaxed condition limitation.

We hold that the intrinsic record demonstrates that the term "relaxed condition" refers to a condition in which the spring has no potential energy. The claim term "relaxed condition" itself suggests an absolute state of no potential energy because it is not written in a relative fashion, such as "more relaxed" or "less relaxed." Moreover, the specification refers to the condition of the spring depicted in Figure 1, which is not in tension because the end to which the needle is attached is free to move, as "the relaxed

state of the spring **3**." '249 patent, col. 2, ll. 25-26. Thus, the specification equates a "relaxed condition" with a condition in which the spring is free from tension, i.e., has no potential energy.

At oral argument, Owen Mumford attempted to counter this evidence from the intrinsic record. Owen Mumford first cited to column 3 lines 7 to 21 of the specification of the '249 patent, which describes the process of energization as the cap slides onto the body. Owen Mumford's counsel emphasized that the spring becomes more energized as the cap is slid further onto the body. This fact, however, tends to prove only that the term "energizing" has a relativistic component. It proves nothing about the term "relaxed condition," which relates to the initial state before the cap is slid onto the body. Owen Mumford next contended that the function of the spring of the '249 patent as a whole is to "impart[] the necessary energy to spring the lance forward" and that "[i]t is not critical to that function that the spring in its first condition be totally relaxed or partly energized." At most, this argument demonstrates that the function of the device is consistent with an interpretation of "relaxed condition" as either without potential energy or less energized. Accordingly, Owen Mumford's two arguments provide no reason based on the intrinsic record for adopting an interpretation of "relaxed condition" as "less energized."

Nor does the general usage dictionary definition cited by the district court suggest that "relaxed condition" should be interpreted as "less energized." To begin, the district court focused on the "relativism" of the definition of the verb "relax" but did not consider the lack of relativism of the definition of the adjective "relaxed" in the same dictionary. See Webster's Third New International Dictionary 1917 (3d ed. 1986)

(defining "relaxed" as, inter alia, "set at rest or at ease"). A further dictionary definition of the adjective "relaxed" in the appellate record that also lacks relativism is "being free from or relieved from tension or anxiety." Random House Dictionary of the English Language 1627 (2d ed. 1987). Other things being equal, the relativistic dictionary definition of the verb "relax" chosen by the district court would appear to be less appropriate than the non-relativistic definition of the adjective "relaxed" because the claim term at issue uses the adjective "relaxed."

Finally, we note that expert testimony from both sides confirms our construction based on the intrinsic record that a "relaxed condition" is a state in which the spring has no potential energy, not merely a state of relatively less energy. Owen Mumford's own expert Robert Mann testified in his deposition that a "relaxed condition of a spring" is "[o]ne in which there's no energy." By affidavit, SurgiLance's expert Stephen Lisak testified that "when a spring is in a relaxed condition, it has zero potential energy."

Accordingly, we hold that the term "relaxed condition" as used in the '249 patent refers to a state in which the spring has no potential energy, i.e., is free from tension.

B

Owen Mumford raises two alternative claim construction arguments. Owen Mumford's first contention is that the phrase in question -- "spring means acting between the lance and the body so that in a relaxed condition of the spring means the lance is in a first retracted position within the body" -- "is alternatively properly interpreted not as an absolute requirement that the spring means *be* in a 'relaxed condition' (regardless of the meaning of that phrase), but rather that *when it is* in a 'relaxed condition,' it retains the lance in a first retracted position within the body."

We find this argument unpersuasive because the description of the invention makes it clear that the spring must begin in a relaxed condition.[2] In describing the invention as a whole, the specification refers to "the lance tip normally being in a retracted position but on energisation and release of the spring means" the lance tip momentarily projects into the patient's finger. '249 patent, col. 1, ll. 20-23. The language "on energisation" suggests strongly that the spring begins in a non-energized, i.e., relaxed, condition. Further, in the description of the preferred embodiment, the "initial position" of the lancet is one in which the spring is in a "relaxed state." Id., col. 2, ll. 26, col. 3, l. 26. Finally, unlike the One-Step, which contains the L-shaped clip and elongated recess, the written description and drawings of the device claimed in the '249 patent do not disclose structures that would allow its spring to remain compressed after manufacture but prior to use.

Owen Mumford's second alternative argument is that, whatever its definition, the term "relaxed condition" is not a structural claim limitation because a spring is a spring whether relaxed or compressed. We reject this argument because it would require us to read the claim language in dispute as superfluous. Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."). Indeed, reading

[2] Even if we were to accept Owen Mumford's claim construction argument, a conclusion of non-infringement would still follow. Although the initial state of the spring in the One-Step is compressed, the spring becomes relaxed after the One-Step is fired. Thus, under Owen Mumford's alternative claim construction, the lancet of the One-Step would have to return to the "first retracted position" after firing because the spring is in a relaxed state at that time. It is undisputed, however, that unlike the device claimed in the '249 patent, the lancet of the One-Step does not return to its first retracted position when it becomes relaxed after pricking. Accordingly, the One-Step would not infringe even under Owen Mumford's alternative claim construction.

the language "relaxed condition" out of the claim would be particularly problematic in this case because that language was added in response to a rejection by the examiner.

Accordingly, we hold that claim 1 of the '249 patent requires that the spring be in a "relaxed condition" when the lancet is in the "first retracted position" and that a "relaxed condition" refers to a state in which the spring has no potential energy. Because claim 1 is the only independent claim, the "relaxed condition" limitation applies to each claim of the '249 patent.

III

Turning now to infringement, it is undisputed that the spring in the One-Step is not relaxed in its initial position as shipped into the United States. For example, SurgiLance's expert Stephen Lisak testified that "the spring of the One-Step is pre-energized and in a compressed state when shipped." Similarly, Patrick Yi, President and CEO of SurgiLance Private Limited, testified that the One-Step is delivered in a pre-armed state and that to activate the One-Step, the user compresses the spring "just a little bit more" using a "[v]ery, very minimal" compression force. Accordingly, because the scope of the term "relaxed condition" in the '249 patent covers only devices containing a spring that is without potential energy in its initial position and any conclusion of infringement on equivalency grounds as to a device with a pre-energized spring would be inconsistent with that limitation, the One-Step does not infringe, either literally or under the doctrine of equivalents. See Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1317 (Fed. Cir. 1998) (holding that the scope of the claim cannot be expanded on equivalency grounds if the expanded scope would be "inconsistent with the language of the claim").

Because the One-Step does not infringe the ’249 patent, either literally or under the doctrine of equivalents, we reverse the district court’s judgment of infringement.[3] We remand the case for entry of judgment of non-infringement.

[3] Because our construction of the “relaxed condition” limitation is sufficient to support non-infringement, we do not reach SurgiLance’s alternative claim construction and non-infringement arguments.

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Defendants-Appellants.

MAYER, Circuit Judge, dissenting.

Because the structure of Surgilance's One-Step reads onto the structure disclosed in the '249 patent, I would affirm the district court's judgment of infringement. Surgilance has merely taken the '249 device and cocked it halfway before importing it. Claim 1, however, is a means-plus-function claim, not a method claim. Thus, the relative position of the spring at the time of importation is irrelevant. Read properly, claim 1 does not require a relaxed spring; it only requires that when the spring is relaxed "the lance is in a first retracted position within the body."

I also do not agree with the interpretation of a means-plus-function claim as requiring both corresponding structure and a particular state, such as cocked, on,

loaded, or charged. If means-plus-function claims are interpreted in this manner, it would allow the foreign production and importation of items with identical structure, but altered states. For example, an otherwise infringing retractable pen could be imported with the tip retracted. According to the court's reasoning, the pen would not function as described in the claims when the tip is retracted and would, therefore, not infringe.

Therefore, and because the district court's claim construction correctly captures the structure provided in the specification, I dissent.