



Patently Strategic

Valuable Lessons in Claim Construction

Overview

- **Evolution of Claim Terms**
- **Claim Construction**
 - What is it?
 - Why is it important?
 - What process is involved?
- **Construing claim terms in prosecution vs litigation**
- **Precedential Case Decisions**

Claim Drafting and Evolution of Claim Terms

Recall that claims define the invention to which a patentee is entitled the right to exclude others from making or using their invention

Attempt to achieve a delicate balance of clarity, breadth, and flexibility

Distinctly different vocabularies:

- Plain English
- Scientific (technical) Jargon
- Conventions of Claim Drafting

Involved in Claim terms:

- Inventor
- Patent Prosecutor/Drafter
- Patent Examiner

What is Claim Construction?

Claim Construction: the process in which courts interpret the meaning and scope of the claims of a patent

If you accuse a party of stealing your idea, you will be required to prove that patent infringement has occurred

Step (1): A patent claim is made that explains the product/method use and makeup

Step (2): Infringement analysis is performed to determine whether or not the claim(s) have been violated

Why is Claim Construction Important?

Claim construction can provide:

- A “reconstruction” of claims into more understandable terms
- A way to assess when claims are too narrow, which means the claims are too specific to be infringed
- A way to assess when claims are too broad, which means it is impossible to claim the claimed invention for their own
- An infringement analysis
- A validity analysis
- Other valuation decisions such as unenforceability, enablement, and remedies



Claim construction is:

- Decided in oppositions during examination of a patent
- Determined in examination of a patent when required
- Used in both Federal Circuit and International Trade Commission (ITC) courts
- Used with a different angle at the PTAB & the Examiner Corp
- **Main determinant for assessing whether a defendant is guilty of stealing an idea or design**

In order for a court to determine that a patented idea was illegally taken and/or used for profit, the patent claim must:

- Be written in a way that an ordinary person can understand
- Cover what the inventor(s) wanted to create and what was actually created
- Prove that the claim is associated with a valid patent from the USPTO



Guilty?

Not Guilty?

Claim Construction Preliminaries

(1) Determine whether any terms even require construction

(2) Establish rules for interpreting claim terms

- Establish PHOSITA and what level of skill of PHOSITA
- Clarify unclear claim terms
- Review claim chart(s) to determine or become familiar with other facts in the case

- Construing the claims is critical in determining an outcome of nearly all patent litigations
- Historical significance of Markman

Markman Hearing:
formal interpretation
of claim construction

Claim Construction Evidence

Written Evidence is the focus, rather than physical evidence

- End Products are typically not compared/considered
- Claims are read, compared, etc.
- Portions could be determined pre-trial or near the end of trial



- Judge – responsible for interpreting the law (law issues)
- Jury – responsible for finding the facts (fact issues)
- Attorneys of each party performs preliminary claim construction

Claim Construction Evidence

Construction of a patent claim typically involves a review of intrinsic evidence and, where appropriate, extrinsic evidence

Intrinsic Evidence

- Patent claims
- Specification
- Prosecution history of patent
- Foreign and Related Patents (& Pros Hist.)
- Prior Art that is cited or inc'd by reference in the Patent and Pros Hist.

Extrinsic Evidence

- Inventor Testimony
- Expert Testimony (Decs)
- Other Documentary Evidence
- Dictionaries, Treatises, etc.

Intrinsic Evidence

- Detailed analysis of what the claims encompass and do not encompass

Determinations:

- Meaning of the claims
 - Adequacy of specification description
 - Invalidity in view of prior art
 - Infringement/scope

- **Validity vs. Infringement issues often play out in claim construction**
- **Estoppel warning!**

Analyzing what the claims do cover is illuminating in when analyzing what the claims do not cover

Extrinsic Evidence

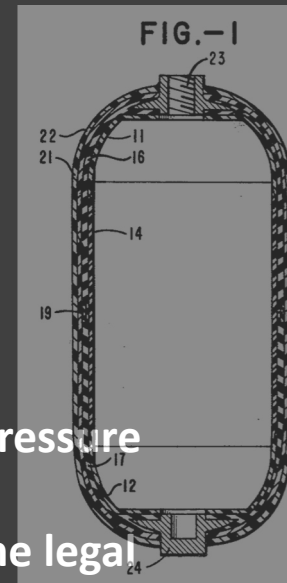
Recognize the limitations of this type of evidence

- Extrinsic evidence by definition is not part of the patent and does not have the specification's virtue of being created at the time of patent prosecution for the purpose of explaining the patent's scope and meaning
- While claims are construed as they would be understood by a hypothetical person of skill in the art, extrinsic publications may not be written by or for skilled artisans and therefore may not reflect the understating of a skilled artisan in the field of the patent
- Extrinsic evidence consisting of expert reports and testimony is generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence
- There is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that could be brought to bear on any claim construction question

Example:

A “vessel for storing high-pressure gases”

- What is the context of the term “vessel”?
- What did the patentee intend to cover when using the term “high-pressure gases”
 - Determine the difference between the semantic content and the legal content
 - Semantic: impugned claim would pivot on the linguistic meaning of the term “vessel” (e.g., watercraft? container? tube-like structure?)
 - Legal: must determine the scope of the term “high-pressure gases” (e.g., a pressure threshold defining “high pressure” would have to be determined)



Claim Construction vs. Claim Interpretation

Ambiguity vs. Vagueness

Claim Construction: serves the function of determining the linguistic meaning of the terms used in a patent claim by eliminating linguistic ambiguity

Semantic Context of Text vs. Legal Context of Text

Claim Interpretation: serves the function of determining the correct linguistic meaning of the terms used in a patent claim by analyzing a context in which the terms are used

Claim Construction Examples

Example I: “substantially equal” [Ex parte Frenk]

1. A bone screw for connecting a plurality of bone fragments comprising:

first and second ends and a longitudinal axis, the first end having a first threaded portion with a first core diameter, a first external diameter and a first pitch, the second end having a second threaded portion with a second core diameter, a second external diameter and a second pitch, the second end further having a tool engaging surface; wherein the first external diameter is smaller than or equal to the second core diameter, and the first and second pitches are substantially equal.



Example I: “substantially equal” (cont)

FF4 Relying on Figure 2, the Examiner finds that Kim discloses a bone screw having a first end with a first threaded portion (threaded portion near ref. 40), and a second end having a second threaded portion (threaded portion near ref. 42), wherein, as can be seen in Figure 2 of Kim, the pitches of the first and second threaded portions are substantially equal (*id.* at 3).

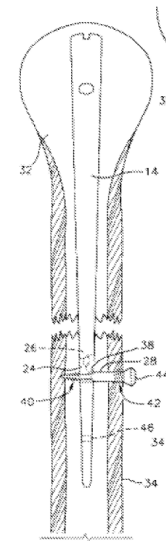


FIG. 2

Figure 2 shows an embodiment of the rod fixation system of Kim

FF5 The Examiner notes that “the term ‘substantially’ is a broad term,” thus “the prior art need not disclose threads that are precisely equal.” (Ans. 5.)

Example I: “substantially equal” (cont)

“[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.” *Hockerson-Halbertstadt, Inc. v. Avia Group Int’l Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000) (holding that the drawings could not be relied upon to construe whether the term “central longitudinal groove” required that the width of the groove be less than the combined width of the fins). “Ordinarily drawings which accompany an application for a patent are merely illustrative of the principles embodied in the alleged invention claimed therein and do not define the precise proportions of elements relied upon to endow the claims with patentability.” *In re Olson*, 212 F.2d 590, 592 (CCPA 1954).



Example I: “substantially equal” (cont)

Appellants argue that the “threads 40 and 42 in Figure 2 of Kim cannot be characterized as ‘substantially equal’ because the drawings are not described [by the disclosure of Kim] as being to scale.” (App. Br. 3.) Appellants contend that the Examiner is improperly interpreting “substantially” as not requiring a precise proportion (*id.* at 3-4). According to Appellants, the Specification “calls for the pitches to be ‘identical’ and ‘the same,’” thus the “qualifier ‘substantially’ read in this light thus means that to infringe the claim an accused bone screw need not be held to an impossibly high standard of metaphysical identity that does not allow for discrepancies due to typical manufacturing tolerances.” (*Id.* at 4.)

Claim 1 requires that the screw have threaded portions on its first and second ends, wherein the pitch of the first and second portions are “substantially equal.” As noted by Appellants, the Specification teaches that the pitches are “the same.” The Examiner interprets “substantially” very broadly, without setting a limit on what would be considered substantially equal, and what would not. Given the teachings of the Specification, as well as the dictionary definition of “substantially” as “essentially,” we agree with Appellants’ interpretation of “substantially the same” as being within manufacturing tolerances.



Example I: “substantially equal” Lessons

- “substantially equal” is an acceptable term to use in the claims
- Avoid reliance on drawing scales/sizes as they do not define precise proportions of the elements IF the specification is completely silent on the issue
 - Use this concept as an argument if an Examiner attempts to use prior art drawing scales/sizes against you



Example II: Positional relationships [Ex parte Miyazaki]

1. A large printer comprising:

a paper feeding unit operable to feed at least one roll of paper, at least one substantially flat sheet of paper and at least one stiff carton, the paper feeding unit being located at a height that enables a user, who is approximately 170 cm tall, standing in front of the printer to execute the paper feeding process including replacement of the roll paper and setting at least one of the sheet of paper and the stiff carton;

a printing unit located below the paper feeding unit,

a discharged paper stacking unit located below the printing unit; and

a paper feeding path extending in a substantially straight line from the paper feeding unit to the discharged paper stacking unit via the printing unit.

issue before us is whether the Appellant has shown that the Examiner erred in concluding that the language of claims 1-6, 13, and 16-18 is indefinite because the manner in which the claims recite the height of the paper feeding unit and/or the sheet feeding area in relation to a user's height is ambiguous when the claims are read in light of the Specification.

Example II: Positional relationships (cont)

The Appellant's Specification does not clearly impose a structural limitation on the height of the paper feeding unit of the claimed printer. The Specification describes the height of the paper feeding unit using the same language as used in claim 1, and does not describe a positional relationship between the user and the printer (see e.g., Spec. 3:8-11 and 14:13-16).

Figure 1 of Appellant's Specification shows only a preferred embodiment in which both the user and the printer are at ground level. The Appellant's Specification describes that Figure 1 is "a schematic vertical section view showing a state wherein a user replaces a paper roll for a large printer according to the present invention" and that the figures show a "preferred embodiment" (Spec. 8:24-25 and 9:16-17). We interpret this description of Figure 1 to mean that the positional relationship between the user and printer shown in the figure is only one of many possible states in which a user can replace a paper roll in the printer.



Example II: Positional relationships (cont)

indefiniteness argument after construing claims; stating that “when claims are amenable to more than one construction, they should when reasonably possible be interpreted to preserve their validity”); and *Athletic Alternatives*,

Exxon Research & Eng’g Co. v.
United States, 265 F.3d 1371, 1375
(Fed. Cir. 2001))

This rule of reading claims narrowly in view of ambiguity runs counter to the USPTO’s broader standard for claim construction during prosecution. In particular, unlike in post-issuance claim construction, the USPTO gives pending claims “their broadest reasonable interpretation consistent with the specification” and “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). This broader claim construction standard is justified because, during prosecution, the applicant has the opportunity to amend the claims, and the Federal Circuit has held that an applicant has the opportunity and the obligation to define his or her invention precisely during proceedings before the USPTO. *See In re Morris*,

F.2d 319, 322 (Fed. Cir. 1989) (manner of claim interpretation that is used by courts in litigation is not the manner of claim interpretation that is applicable during prosecution of a pending application before the USPTO).



Example II: Positional relationships (cont)

The USPTO, as the sole agency vested with the authority to grant exclusionary rights to inventors for patentable inventions, has a duty to guard the public against patents of ambiguous and vague scope. Such patents exact a cost on society due to their ambiguity that is not commensurate with the benefit that the public gains from disclosure of the invention. The USPTO is justified in using a lower threshold showing of ambiguity to support a finding of indefiniteness under 35 U.S.C. § 112, second paragraph, because the applicant has an opportunity and a duty to amend the claims during prosecution to more clearly and precisely define the metes and bounds of the claimed invention and to more clearly and precisely put the public on notice of the scope of the patent.



Example II: Positional relationships (cont)

The language of claim 1 attempts to claim the height of the paper feeding unit in relation to a user of a specific height who is performing operations on the printer (Fact 1). Claim 1 fails to specify, however, a positional relationship of the user and the printer to each other. For example, claim 1 does not recite where the printer is located or where, relative to the ground, the user is standing. As such, the printer of claim 1 could be positioned on a table or a platform and/or the user could be standing on something other than the ground, such as a step stool. An infinite number of combinations of printer and user positions could be envisioned such that the above-recited language of claim 1 does not, in fact, impose a structural limitation on the height of the paper feeding unit of the claimed printer. As a result, claim 1 fails to delineate any height requirement for the paper feeding unit despite purporting to do so. The Appellant's Specification also does not clearly impose such a positional relationship between the user and the printer to the language of claim 1



Example II: Positional relationships (Lessons)

- Clearly define relative positions if you use them in the claims (define them in the claims AND in the specification)
- Impose restrictions on size of things if important to the inventive concept (e.g., the user and the paper feed unit height)
- Can cure this by indicating a height for each claimed element where height is an inventive feature
 - Likely better cure is to remove the user in this example and claim only structure, utility, and configurations
 - Be careful with size-based claiming



Key Takeaways

- Be clear in your claim language and watch for estoppel - Claim construction can be used against you in prosecution and litigation
- Watch out for relative terms and not properly including specification examples when scale and/or size-based things are important to novelty



**What questions do
you have?**