

Lessons on Patentability and Infringement (Part 1)

John I. Izuchukwu, PhD, MBA, PE

Author Note

In this section of a multi-part paper on patentability and infringement, I discuss the requirements to be granted a patent, parts of a patent and claim construction. I present my viewpoint based on experience as a medical device expert witness on patent infringement cases; review of patent related case laws and legal opinions. As one skilled in the art, I describe what is novel and non-obvious, patentability and infringement.

Introduction

For a patent to be granted, the claimed invention must be novel and non-obvious. To infringe on a patent one or more of the claims must be infringed upon. The United States Patent and Trademark Office during patent examination gives the claims the broadest reasonable interpretation based on the patent specification and drawings. The broadest reasonable interpretation of the claims must be consistent with the interpretation that those skilled in the art would reach. However, the courts do not. The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. The claims define in technical terms, the scope of the protection conferred by a patent. It is therefore improper to import a claim limitation from the specification. Absence of prosecution history estoppel, a patent provides protection broader than the language of the claim.

Parts of a patent

A patent consists of several parts: a specification, usually one or more drawings, and one or more claims. Specification is a major part of the patent. The main parts of a utility application's specification are:

1. Title: It is brief, technically describes and identifies the field of the invention.
2. Related applications: If a patentee application is related to a prior filing, like a provisional application, he/she must identify it by its serial number.
3. Abstract: A 500-word brief description of how the invention works.
4. Background: This consists of two parts. A description of the field of the invention and a description of the related art, which includes related patents and the problem that the invention solves.
5. Summary: This is longer than the abstract and describe the problems solved by the invention and how it works.
6. Brief Description of Drawings: This consists of a very short explanation of each drawing, such as "elevational view of the tool handle" or "diagram of the process to encrypt data."
7. Detailed Description: This is the core of the specification and describes the inventor's preferred way and other ways of practicing the invention,

along with a narrative that explains the drawings.

8. Claims: claims are on their own page and are where the inventor stakes out the novel part of his/her invention. Claims are the most valuable part of the patent. If someone is making, using, selling, offering for sale or importing your invention, as described by the claims of an issued patent, then that person is infringing the patent. The goal of the inventor should be to get claims that are as broad as possible. A claim consists of independent and dependent claims. For example:

Claim 1. A device for opening a can comprising:
a formed body with an ergonomic handle; a tunable dial connected to a bladed wheel; and a lever to eject a cut can.

Claim 1 is an independent claim because it references no other claims.

2. The device of claim 1 further comprising an ergonomic sphere removably attached to the tunable dial. This is a dependent claim. Dependent claims are used to define the preferred way of using the invention or to specifically describe other products that may infringe the patent.

9. Drawings: Drawings are not required for a patent filing, but the examiner may require the inventor to submit drawings if the nature of the invention is such that drawings would help the examiner understand the invention. Drawings must meet certain standards and requirements, such as margins, size and type of paper. Drawings further contain reference numbers. The inventor must identify all the relevant parts of his/her invention, identifying in the description what makes the invention novel. Each part gets a number.

Types of patents

There are two types of patents namely, design (or ornamental) and utility. patents. According to the United States Patent and Trademark Office, a design patent consists of the visual ornamental characteristics embodied in, or applied to, an article of manufacture. It is manifested in appearance. Therefore, the subject matter of a design patent application may relate to the configuration or shape, to the surface ornamentation applied to an article, or to the combination of configuration and surface ornamentation. A design patent protects only the appearance of the article and not structural or utilitarian features.¹ A "utility patent" on the other hand protects the way an article is used and works.² Both design and utility patents may be obtained on an article if invention resides both in its utility and ornamental appearance.

Utility patents cover the most common categories of invention and are granted for inventions that produce a new and useful result (as opposed to design patents, which protect purely ornamental designs on useful objects). For an invention to qualify for utility patent protection, it must fall into one of the following categories of subject matter:

¹ 35 U.S.C. 171

² 35 U.S.C. 101

Machines, which are generally composed of moving parts (such as a clock or an engine); Articles of manufacture, which are generally useful items with few or no moving parts (such as a screwdriver or bolt); Processes, which are stepwise methods (including software and methods of doing business); and, Compositions of matter, which include compounds and mixtures (such as man-made proteins and pharmaceuticals).

Patent Claim construction

The construction of patent claims plays a critical role in nearly every patent case. It is central to evaluation of infringement and validity, and can affect or determine the outcome of other significant issues such as unenforceability, enablement, and remedies.

In a patent or patent application, the claims define, in technical terms, the extent, i.e. the scope, of the protection conferred by a patent, or the protection sought in a patent application. In other words, the purpose of the claims is to define which subject-matter is protected by the patent (or sought to be protected by the patent application). This is termed as the "notice function" of a patent claim, to warn others of what they must not do if they are to avoid infringement liability.³

The claims often use precise language. Certain words commonly used in claims have specific legal meanings determined by one or more court decisions. These meanings may be different from common usage. For instance, the word "comprises", when used in the claims of a United States patent, means "consists at least of". By contrast, the word "consists" means "consists only of", which will lead to a very different scope of protection.

Furthermore, in U.S. patent practice at least, inventors may act as their own lexicographer in a patent application. That means that an inventor may give a common word or phrase a meaning that is very specific and different from the normal definition of said word or phrase. Thus, a claim must be interpreted considering the definitions provided in the specification of a patent. The specification of a patent is a written description of how to make and use the invention. In U.S. law, a claim is interpreted in a Markman hearing.

There are two basic types of claims; namely the *independent claims*, which stand on their own, and the *dependent claims*, which depend on a single claim or on several claims and generally express embodiments as fallback positions. The expressions "*in one embodiment*", "*in a preferred embodiment*", "*in a particular embodiment*", "*in an advantageous embodiment*" or the like often appear in the description of patent applications and are used to introduce an implementation or method of carrying out the invention.

An independent ("stand alone") claim does not refer to an earlier claim, whereas a dependent claim does refer to an earlier claim, assumes all the limitations of that claim and then adds restrictions (e.g. "The handle of claim 2, wherein it is hinged.") Each

³ *PSC Computer Prods., Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353, 1358 (Fed. Cir. 2004) ("One important purpose of the written description is to provide notice to the public as to the subject matter of the patent, while the claim provides notice as to the scope of the invention."). See also *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. ___, 134 S. Ct. 2120 (2014) ("To tolerate imprecision just short of that rendering a claim 'insolubly ambiguous' would diminish the definiteness requirement's public-notice function and foster the innovation-discouraging 'zone of uncertainty' [citation omitted] against which this Court has warned."); *McClain v. Ortmayer*, 141 U.S. 419, 424 (1891) (a patent claim must be precise and clear enough to give the public clear notice of what is claimed, thereby "appris[ing] the public of what is still open to them").

dependent claim is, by law, narrower than the independent claim upon which it depends. Although this results in coverage narrower than provided by the independent claim upon which the second claim depends, it is additional coverage, and there are many advantages to the patent applicant in submitting and obtaining a full suite of dependent claims:

Independent claims are typically written with very broad terms, to avoid permitting competitors to circumvent the claim by altering some aspect of the basic design. But when a broad wording is used, it may raise a question as to the scope of the term itself. If a dependent claim is specifically drawn to a narrower interpretation, then, at least in the U.S., the doctrine of differentiation states that the independent claim must be different from, and therefore broader than, the dependent claim. The doctrine dictates that it "is improper for courts to read into an independent claim a limitation explicitly set forth in another claim."⁴ This means that if an independent claim recites a chair with a plurality of legs, and a dependent claim depending from the independent recites a chair with 4 legs, the independent claim is not limited to what is recited in the dependent claim. The dependent claim protects chairs with 4 legs, and the independent claim protects chairs with 4 legs as well as chairs having 2, 3, 5 or more legs. Similarly, it may be unclear whether a "base" includes a "set of legs." A dependent claim, including the phrase, "wherein said base comprises a set of legs," if allowed by the patent examiner, clarifies that the word base in the independent claim does not necessarily include legs. In practice, dependent claims are often used to home in on the inventor's preferred embodiment of the invention (e.g., the actual product design that the inventor intends to use.) The independent claim broadly describes the invention; dependent Claim 1 describes the invention in a narrower aspect that more specifically describes the preferred embodiment; dependent Claim 2 is narrower still; etc. it is improper to import a claim limitation from the specification.⁵

Conclusion

In this section of a multi-part paper on patentability and infringement, I discussed the requirements to be granted a patent, novelty and non-obviousness, parts of a patent and claim construction, with reference to related case laws and legal opinions. In Part 2, I will discuss patent infringement and how a patent can be infringement.

⁴ *Environmental Designs Ltd. v. Union Oil Co. of California*, 713 F.2d 693, 699 (Fed. Cir. 1984).

⁵ "Though understanding the claim language may be aided by explanations contained in the written description, it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004). See also *Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 906, 69 USPQ2d 1801, 1807 (Fed. Cir. 2004) (discussing recent cases wherein the court expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment); *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) ("Interpretation of descriptive statements in a patent's written description is a difficult task, as an inherent tension exists as to whether a statement is a clear lexicographic definition or a description of a preferred embodiment. The problem is to interpret claims 'in view of the specification' without unnecessarily importing limitations from the specification into the claims."); *Altiris Inc. v. Symantec Corp.*, 318 F.3d 1363, 1371, 65 USPQ2d 1865, 1869-70 (Fed. Cir. 2003) (Although the specification discussed only a single embodiment, the court held that it was improper to read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims did not impose a specific order on the performance of the method steps, and the specification did not directly or implicitly require a particular order)

