

Chapter 5

-- Patent Infringement --

In this chapter, we will explore the scope of a patent and how it is determined whether a patent has been infringed. The scope of a patent, i.e., what the patent covers, is determined by the claims. If any one claim of a patent is infringed, the patent is infringed. It is not necessary that every claim of the patent be infringed for the patent to be infringed.

A claim is infringed if each and every element, step, function, relationship, etc. recited by the claim is found in the device or method under consideration for infringement. Because a dependent claim, by definition, includes all the features of the claim or claims from which it depends, a dependent claim cannot possibly be infringed unless the claim or claims from which it depends are also infringed.

Thus, to determine if a claim is infringed, one parses through the claim to see if each and every feature of the claim can be found in the accused device or method. If so, the claim is infringed and so is the patent. An infringement analysis always begins with the independent claims.

Let's consider a simplified example. Suppose we have a patent that contains the following independent claim:

1. A device for cleaning teeth comprising:
an elongated handle; and
a group of bristles attached to said handle;
wherein said bristles extend at different lengths from said handle.

Now suppose that some manufacturer is marketing a toothbrush with the following features: an elongated handle and a group of bristles attached to the handle, where all the bristles are the same length. Such a toothbrush would *not* infringe this claim because it does not include bristles that extend at different lengths from the handle. Each and every feature of the claim must be true of the device or method in question for the claim to be infringed.

Now suppose that another manufacturer is marketing a toothbrush with the following features: an elongated handle and a group of bristles attached to the handle, where the bristles are of different lengths. The elongated handle also includes a head on which the bristles are located, the head being at an angle to the rest of the elongated handle.

This toothbrush would infringe claim 1 above. The toothbrush in question has all the features recited in claim 1, i.e., an elongated handle, a group of bristles on the handle and the bristles are of different lengths. The fact that the toothbrush in question contains the additional feature of an angled head is irrelevant. Because everything recited in the

claim is true of the toothbrush in question, the toothbrush in question infringes the claim and its patent.

In general, claims are open-ended in that they are infringed by devices or methods that include everything recited in the claim, even if that device or method goes on to include additional features, etc. However, this is not necessarily the case. In some cases, it may be desirable to restrict a claim to a closed set of features such that the claims are only infringed by a device or method having precisely those features and nothing more. To understand how this is done, we must understand the typical parts of a claim.

A claim is typically composed of three parts: an introduction, a transitional phrase and a body. In our exemplary claim above, the introduction is “A device for cleaning teeth.” The transitional phrase follows: “comprising.” The remainder of the claim is then considered to be the body of the claim.

It is the transitional phrase that determines if the claim is open-ended or closed-ended. We have already seen above that the transitional phrase “comprising” is open-ended, meaning that an infringing device or method can include more features that are not recited in the claim, but is still an infringement. The transitional phrase “consisting of” would be used to create a closed claim that can only be infringed by a device or method that is described by the claim and includes nothing beyond what is listed in the claim.

Now, assuming that a device or method is going to infringe a patent claim, precisely when or how does the infringement occur? The answer is found in the patent statutes, 35 United States Code.

35 USC 271(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

Thus, making a device that is covered by a patent claim infringes that patent. Using a device or performing a method that is covered by a patent claim infringes that patent. Selling or offering for sale a product that infringes a patent claim infringes that patent. Importing a product that is covered by a patent claim infringes that patent. Also, importing a product into the United States that was made outside the U.S. by a method patented in the U.S., infringes that method patent.

The form of patent infringement described above is known as literal infringement, i.e., the patent claim literally reads on accused device or method and the infringer is making, using, offering for sale, selling or importing the infringing product or performing the infringing method. However, literal infringement is not the only form of patent infringement. We will now consider several others.

-- Induced Patent Infringement --

Induced infringement is covered by 35 USC 271(b), which reads: “Whoever actively induces infringement of a patent shall be liable as an infringer.” This means that someone who induces someone else to infringe a patent, e.g., persuades or coerces someone to infringe a patent, is guilty of patent infringement as if he or she had committed the infringement personally.

Let’s consider an example. Aspirin has been used for many years as a pain-killer or analgesic. No patent on the formula for aspirin remains in force. Thus, anyone can make and sell aspirin without fear of infringing the patent on aspirin.

Suppose, however, that Inventor discovers a unique method of using aspirin, both topically and through internal administration, that will cure cancer. In other words, by administering aspirin in specific forms and dosages according to a specified regimen, the hypothetical invention can cure certain forms of cancer.

Now, aspirin is known and is in the public domain. Inventor cannot get a patent for aspirin. However, it is possible to patent a new use for a known product, provided that use is novel, useful and non-obvious. Therefore, Inventor can patent the miraculous method of using aspirin to cure cancer.

This presents an interesting scenario. Any company can make and sell aspirin for its traditional purpose as a pain-killer. But Inventor’s patent will prevent anyone from using aspirin as a cure for cancer absent Inventor’s authorization.

Extending this example further, Inventor’s patent could not be used to prevent a drug company from making and selling aspirin with instructions on the bottle explaining how to use the aspirin for pain relief. Suppose, however, that the drug company also includes with their aspirin an explanation of Inventor’s invention and directions on how to use the aspirin according to the patented method to cure cancer.

In such a case, technically, the drug company may not be literally infringing Inventor’s patent. The drug company is not using aspirin to cure cancer. If anyone is, their customers are. The drug company is merely providing the traditional product, aspirin, which they are allowed to do, in combination with documentation regarding Inventor’s patented cancer cure.

As the owner of the patent on curing cancer with aspirin, Inventor could attempt to sue any individual who buys the drug company’s aspirin and then uses it to cure cancer. That would be a clear literal infringement of Inventor’s patent. However, going after individual cancer victims would be an extremely costly method of enforcing the patent, not to mention mean. Inventor would rather sue the drug company for patent infringement. The drug company is likely profiting enormously from the surge in aspirin sales that would inevitably accompany the new cancer cure. Under the doctrine of induced infringement, Inventor can sue the drug company.

By packaging the aspirin along with instructions as to how the aspirin can be used to infringe Inventor's patented cancer cure, the drug company is inducing customers to infringe Inventor's patent. The drug company is providing the materials and the know-how to infringe the patent and is, in effect, suggesting that customers infringe the patent. This suggestion to infringe may be further evidenced by the drug company advertising the use of its aspirin as a cancer cure.

Under these circumstances, the drug company could be sued for patent infringement for inducing literal infringement of the patent by its aspirin customers. Thus, the suit for infringement can be against the party profiting most from the infringement.

In a related example, let's assume that someone studies Inventor's patented cancer cure and then publishes a book that explains how ordinary aspirin can be administered according to the patented method to cure forms of cancer. The book's author is not selling aspirin with instructions on how to infringe the patented cancer cure. However, the author is pointing out the ready availability of aspirin and providing instructions for its use to infringe the patented cancer cure. Under these circumstances, the author of the book may also be sued for inducing infringement of Inventor's patent.

-- Contributory Patent Infringement --

Moving on from induced patent infringement, we come to the doctrine of contributory infringement. Contributory infringement is similar to induced infringement. Contributory infringement is covered by 35 USC 271(b):

35 USC 271(b): Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

Thus, contributory infringement is similar to inducing infringement in that the contributory infringer must provide something that is needed for the literal infringement of the patent and that has no other substantial noninfringing use. In our scenarios above, the drug company that sells aspirin with instructions for infringing Inventor's patented cancer cure is not a contributory infringer because aspirin has a user apart from infringing Inventor's patent, i.e., as a pain-killer. In patent parlance, the aspirin is a "staple article or commodity of commerce." Thus, induced infringement applies but contributory infringement does not.

Let's suppose instead that Inventor's patented cancer cure is performed, not with aspirin, but with parts of a plant found in the Arizona desert. Further suppose that this plant has no other known use and has never been harvested.

An enterprising company now begins harvesting this plant and selling it in a form that can be used to practice Inventor's patented cancer cure. The company does not make any references in its sales materials to uses for the plant. The company does not advise customers that the plant can be used in a cancer cure. The company begins selling quantities of the plant to hospitals, cancer clinics, etc., where it is, in fact, put to its only known use, curing cancer.

Under these circumstances, the company is a contributory patent infringer. The company is not an inducing infringer because it is not doing anything to actively encourage or instruct others to infringe the patent. However, because the company is selling an item that has no use other than to infringe Inventor's patented cancer cure, the company is a contributory infringer because the company contributes to infringement of the patent by providing a necessary ingredient or component for the literal infringement that is then performed by its customers, the hospitals, cancer clinics, etc.

-- Patent Infringement Under the Doctrine of Equivalents --

Finally, we consider patent infringement under the Doctrine of Equivalents. This is a very complicated area of patent law that is driven by case law and is in constant evolution. Therefore, this discussion is merely an attempt to expose the reader to the basic idea of the Doctrine of Equivalents and how it affects the scope of patent claims.

We have discussed literal patent infringement, induced infringement and contributory infringement. The Doctrine of Equivalents, in its simplest form, applies to cases of literal patent infringement.

Suppose we have a patent claim that reads as follows:

1. A device comprising:
a first member;
a second member; and
a screw securing said first member to said second member.

Now suppose that an enterprising company wants to get in on the market for this wildly successful, but patented, device. The company begins producing a device that includes first and second members. However, the members are secured to each other with a nut and bolt rather than a screw.

In such a case, there is no literal infringement of the claim because the accused device does not include a "screw" which is specifically called for by the claim.

Remember that a claim is only literally infringed if each and every recited element, relationship, function, etc. is found in the accused device or method.

When there is no literal infringement, as in this example, the Doctrine of Equivalents looks at the differences between the claimed device or method and the accused device or method. If there are only “insubstantial” differences between the two, the Doctrine of Equivalents can allow a court to still find infringement of the patent claim even though the claim is not literally infringed.

More specifically, the Doctrine of Equivalents follows the usual analysis for infringement, namely, we look at each element of the claim and attempt to find that element (be it a structure, functionality, relationship, etc.) in the accused device or method. If the element is not found, the Doctrine of Equivalents looks for an “equivalent” element. If an “equivalent” element is found, the question is asked whether the difference between the claimed element and the equivalent element are “insubstantial.” If so, infringement may be found.

Whether the difference between a claimed and equivalent element is substantial or insubstantial is a complicated legal question that can be argued in a variety of ways. One accepted analysis is to question whether the two elements perform the same function, in the same way, to achieve the same result. This is known as the function-way-result test.

In the present example, a screw and a bolt arguably perform the same function, in essentially the same way to achieve the same result. Thus, the company’s product, which includes the nut and bolt, likely infringes claim 1 under the Doctrine of Equivalents even though there is no literal infringement.

-- Claim Construction --

As might be imagined, arguments often arise over the meaning of a word used in a patent claim. It is often the case that if a claim term is defined in one way, literal infringement is easily found, while if the term is defined in another way, the claims are not literally infringed, or perhaps, not infringed at all.

The general rule is that words used in the claims are given their generally understood meaning in the field to which the invention pertains. In other words, the claim terms are defined as they would be understood by the average person working in the field to which the invention pertains.

However, the patent application may wish to define particular terms more broadly or more narrowly than in common usage. A patent application may also need to define new terms to describe the invention.

Consequently, words and phrases can be defined in the specification of a patent application and that definition will be respected when construing the claims.

Consequently, a well written patent application will usually define the important terms from the claims in the specification so as to control how the claims are construed and to see that the claims are construed as broadly as possible.

Because the entire question of infringement can turn on the construction of a claim, the legal system has developed a mechanism so that claim construction issues can be resolved at the beginning of a suit for patent infringement. In this way, if claim construction is the dispositive issue, it can be resolved before further time and effort are wasted in infringement litigation.

A Markman hearing is a hearing held before the judge in a patent infringement suit to determine how the claims will be construed. If there is any ambiguity as to how a claim should be construed, the parties can argue to the judge as to how the claim should be read. The judge will then issue a ruling that construes the claims or accepts a particular definition for a term or terms in the claim.

The Markman hearing is held very early in the patent infringement suit. Consequently, the suit may be settled or abandoned following the Markman hearing if the claim is construed by the court in such a way as to clearly favor the patent owner or the alleged infringer.