To Claim or Not to Claim, That is the Question

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Practice Area: Patents & Intellectual Property

A blank sheet of paper and a pen. A white screen and a keyboard. Take your pick, but such are the tools with which every patent application begins. Those of us in the industry know what happens next. Once we have read all the invention disclosure materials and sketches, interviewed the inventors, and studied the prior art, we dive into writing the application. And what is the first part typically tackled? Where do we spend the largest share of our time? The claims of course. Those numbered paragraphs at the conclusion of any patent application which attempt to wrap arms around the metes and bounds of the intellectual property to which the inventor is entitled. Tortured English though they may be, they are by far the words with the most import attached. With that in mind, in this article we will outline several strategies to consider when writing a claim set (or in the case of an inventor or client, to look for when reviewing a claim set) to most effectively capture an invention.

Apparatus Claims

The most common type of claim is an apparatus claim. Ask a person on the street what a patent is and chances are that they will start describing a machine. That is the type of claim in question here. An apparatus claim identifies the elements of structure comprising the overall device or "apparatus" that set it apart from similar machines which have come before. Taking the most famous invention of all time as an example, a light bulb apparatus claim might read: A light source, comprising: a base, a filament mounted to the base, conductors connecting the base to the filament, a globe extending from the base and surrounding the filament, and an inert gas filling the globe. Such a claim concisely covers the invention in relatively broad terms, but great care needs to be given to include only as much structure as needed to distinguish over the prior art, without being so narrow as to allow for easy design arounds by competitors.

Method Claims

Method claims can be thought of as the functional converse of an apparatus claim. Whereas an apparatus claim specifies the structure comprising a device for doing X, a method claim specifies the actions taken to perform X. Described using gerunds, if the prior art allows, little to no structure need be set forth in a method claim. Continuing with the light bulb example, a method claim might read: A method of illumination, comprising: providing a light source, connecting the light source to a power supply, and activating the power supply. The benefits are clear. Assuming such a claim is granted, any party practicing such a method, regardless of the structure used to get there, would be infringing the claim.

System Claims

A system claim can be beneficial when the invention even when viewed from the proverbial ten-thousand foot level still holds patentable weight. Perhaps the invention involves the use of many individual machines working in concert. In such situations, not only can the individual machines be claimed but, again depending on what the prior art allows, so too can the overall coordinated system. The light bulb example does not easily lend itself to further use here, but certainly coordinated light bulbs are used all the time and might read: A system of illuminating a pathway, comprising a plurality of light bulbs positioned along the pathway, a power source, a controller adapted to sequentially energize the plurality of light bulbs.

Parts Claims

Whereas a system claim might attempt to zoom out and protect the larger picture, a parts claim goes the other direction zooming in on component pieces used to construct the overall machine. Such claims can get as granular as necessary depending on what the prior art discloses and the benefit seen by the inventor in protecting seemingly smaller and smaller levels of technology. Sticking with the light bulb theme, perhaps the manufacturer does not manufacture the light bulb as a whole but rather just the glass globe or the filament. In such situations, they may never have a case for direct infringement of a light bulb claim, but would greatly benefit by having protection for the filament by itself. Such a parts claim might read: A resistive heating element comprising a length of tungsten thread, the length of tungsten thread having a series of coils formed therein and terminating in an anode and a cathode. Such claims can also be particularly useful in situations where competitors do not make the entire device you produce, but just make and sell component parts to another manufacturer or OEM.

Means Plus Function Claims

An often overlooked or recently disregarded form of claiming is referred to as means plus function claims. Say your inventor has created not only one working version, but dozens of alternatives, either in full prototype form, or just in theory. They all purport to do the same thing but in slightly different ways. One claiming approach would be to write a relatively generic apparatus claim to arguably cover all the different embodiments. But with over 11 million U.S. patents in print and growing, the chances of such a generic claim distinguishing over all that prior art decreases by the day. In such situations, it may be advantageous to describe each of the prototypes/embodiments in the specification of the patent application and then with at least one of the independent claims describe the device in terms of means plus function. Working the light bulb example to its nth degree, such a claim might read: A means for illuminating, comprising: a resistive heating element, means for enclosing the resistive heating element, and means for connecting the resistive heating element to a power supply. While such a claim will be interpreted in light of the embodiments set forth in the specification, in situations as above where an expansive list of alternative embodiments is fleshed out, a means plus function claim can be a useful part of an overall claiming strategy.

Product-by-Process Claims

It is relatively rare, but sometimes patentability lies not in the structure used, or just the structure used, but also or only in the way in which the product is made. This can arguably be covered by a method of manufacturing claim, but then again an enforcement action can likely only be brought using such a method claim against an infringer whose method you can gain access to or otherwise ascertain with sufficient certainty. In other words, method of manufacture claims are notoriously difficult to enforce as the method itself is often only practiced within the enclosed walls of a competitor's factory. However, if you can couch the invention in terms of the apparatus that results, i.e. as a product-by-process claim, and you know that the apparatus can only be produced in accordance with a particular method, such a claim can be enforced against the manufacturer even though the method may be practiced behind closed doors. It is difficult to expand the light bulb example to include this approach but speaking hypothetically, suppose the light bulb has to be made using argon as the inert gas and the argon must be provided within the glass globe in a particular pressure range to operate effectively. With those as the parameters, such a product-by-process claim might read: A light bulb having a filament mounted to a base with glass globe surrounding the filament, the light bulb being manufactured by a method comprising injecting argon gas into the glass globe at a pressure of Y psi; and sealing the base to the glass globe to maintain the pressure at Y psi.

Parametric Claims

With certain crowded arts, particularly in the mechanical space, the patentable subject matter may not lie in brand new devices per se, but rather with incremental improvements to known technology. In such situations it may be difficult, if not impossible, to point to new elements or structure that is not shown in the prior art. Also, dimensional changes to known structure are often met with "obvious to try" type rejections which are arduous to overcome. However, if the invention lends itself to the idea, such inventions can often be captured by turning to parametric claiming. Perhaps the ratio of one dimension to another dimension yields an unexpected result in terms of increased productivity or efficiency. Or perhaps a combination of dimensions or measurements arrives at an unexpectantly good result in terms of life span for the device. If that or those are the facts presented by the data points collected when testing the device, then claims can be crafted to a device having that ratio or that combination even though the main pieces of apparatus are largely the same as in the prior art. As the claims hinge on the particular ratio or combination of measurements, such claims are referred to as "parametric" claims as they rely on that particular parameter, and likely a heretofore unknown parameter, for their patentability. Not knowing what parameter might be in play with the light bulb hypothetical, such a claim could be written myriad ways, but might read: A light bulb comprising a filament having a lumen to ohm ratio of Z.

Omnibus & Global Claims

These two types of claims are largely misnomers. In the U.S. and most foreign jurisdictions, omnibus claims are not allowed. Comparable to the manner in which U.S. design patent claims are phrased, an omnibus claim might read: "A light source as shown and described herein." While the USPTO will not allow them, the European Patent Office will in the rarest of situations. Similarly, if ever the term "global claim" is offered, be wary. Each jurisdiction around the world has its own statutes and jurisprudence so to attempt to fashion a claim set that is perfected for use in all is impossible. The best that can be expected is to amend the U.S. claim set so as to avoid excessive claim fees involved, or prepare them in the two-part format favored in Europe, etc., but in our opinion, it is a task best left for the local counsel retained in each country for filing the corresponding foreign application and skilled in the laws of that nation.

Special Claims

Certain other types of claims defy classification. For example, a Markush group is not a claim type exactly, but rather a list or clause within another of the above-referenced patent claims. A Jepson claim is largely the U.S. counterpart to the European two-part claim format in that in its preamble it sets forth the structure of the known device upon which the invention improves, and then the body of the claim sets forth the elements of the improvement made thereto. Another example is a Beauregard claim that is a claim type unique to computer software inventions. Other types of highly specialized claims certainly exist as well.

Conclusion

In no way is the foregoing an exhaustive list of patent claim types. Just as inventions themselves come in all shapes and sizes, so too do the patent claims that can be written to protect them. Nor is this article advocating for the use of one type of claim over another. It is simply important for your patent attorney to keep all such tools at the ready, consider them when appropriate, and implement them when most advantageous.

The patent practitioners of von Briesen are well versed in all the nuances of patent prosecution, including the drafting of effective claims. Should you any questions in these regards in connection with your idea, patent application, or patent portfolio, we invite you to contact us for a conversation.

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