

I'm Riding a What?... An Intellectual Property Attorney's Guide To Patents and Surfing

Article by: Thomas A. Hatfield

Intellectual property is everywhere, and encompasses, among other things, the areas of patents, trademarks, copyrights, and trade secrets. As an industry, surfing represents a significant market that is heavily influenced and involved with intellectual property. In fact, the Surf Industry Manufacturer Association's (SIMA) managing director Sean Smith surprised me with the fact that the U.S. Surf market is estimated to be a \$4.14 billion industry and the worldwide surf market is estimated to be a \$6.5 billion industry. SIMA, in a fact sheet, further reports that there are about 1.6 million people who participate in surfing. This substantial market is segmented along several intellectual property borders that have been created by both organizations and individuals. As an indicator of this segmentation, just start looking for those telltale indicators that include "Patent Pending", "Patent No. ____", ®, and ©. Chances are you will many of these references to trademarks, patents, and copyrights on your clothes, your board, the videos you watch, and your surfing accessories. So, you may be asking, what exactly is a trademark or patent anyway?

A trademark is a word, phrase, symbol or design, or a combination of those things, that identify and distinguish the source of one party's goods and services from those of another party. Trademarks are often a good source of income generation for organizations having well established brands. This is because the organization can license the use of their trademark for display on almost any item or piece of clothing you can imagine. For example, Sticky Bumps® U.S. registration number 1831402 is used in conjunction with "apparel; namely, shirts, shorts and hats, "Roxy T-Street Surf Contest" an application for which was filed March 29, 2004 for use in conjunction with "entertainment and sporting events in the field of boardriding sports", and U.S. Trademark Application No. 78305769 for "Robert August" used in conjunction with "clothing, namely, shirts, t-shirts, knit shirts, woven shirts, sweaters, sweat shirts, tank tops, jackets, pants, sweat pants, shorts, swimming suits, board shorts, socks, belts, caps, and headwear".

The sheer power and financial potential of trademark licensing is clearly apparent since you can easily find a trademark that only a few years ago was found exclusively in a line-up, and which now is prominently plastered across the shirt of someone living several hundred miles from the nearest break.

A patent can be broadly defined as a temporary property right, often described as a "monopoly", granted by a government to an applicant. Patents allow those who own or license them to have some significant market leverage. This leverage exists because a patent owner or licensee can control the use, manufacture, and sale of products covered by the patent. An example of a patent related to surfing is United States Patent No. 6,375,770 published as being assigned to O'Neill, Inc. (Santa Cruz, CA). This patent relates to an apparatus and methods for the "formation of adhesively bonded butt seams between foamed, fully cured, elastomeric, resiliently compressible and flexible sheets of material of the type used in wet suits". In very basic terms, if you want to make, use, or sell a device or method covered by the patent, you need O'Neill's permission, otherwise you may be the subject of an infringement action. While patents can be extremely valuable, they do not guarantee that the patent owner or licensee will financially benefit. A good patent is like a good board, it won't help you find those perfect waves, nor will it position itself, however, once you're there it lets you rip. Therefore, the critical thing you should keep in mind, whether you are an individual inventor or a decision maker for a multinational company, is that you need a patent strategy that dovetails into a solid business operations plan which includes marketing and licensing know how. Without those, you're going to take it on the head every single time.

While the patent systems around the world share many features, they are in no way identical. The U.S. patent system serves as a solid reference point from which to understand most of the other patent systems. The legal basis for granting patent rights is found in the text of the U.S. Constitution. Specifically Article 1, section 8, clause 8 reads, "the Congress shall have the power...to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discovery". This constitutional right to patent property entitles an inventor to certain rights to the invention for a "limited time". Typically a patent grant has a life of 20 years from the filing date of a patent application. Once obtained, the patent grantee has the right to exclude others from making, using, offering for sale, selling, or importing the invention in the United States. In addition, U.S. patent law considers, with some qualifications, those who offer to sell, sells, or imports into the United States a component of a patented invention or a material or apparatus for use in practicing a patented process, liable as a contributory infringers. As you can see, if you obtain a patent you may have some serious power over what others can legally do.

A U.S. patent is obtained by first filing of an application. The patent application is a formal document that includes, in general, a description of how to make and use the invention, any necessary drawings or figures, and a set of formalized descriptive sentences called claims. Once filed, the disclosed invention is examined by the United States Patent and Trademark Office (USPTO) to determine whether it meets all the requirements found under U.S. patent law. During this prosecution phase the applicant has some limited ability to cure defects and/or amend portions of the application. The typical application, once filed, spends about 2 to 3 years at the USPTO being examined and prosecuted. The cost of filing a patent application through a patent attorney is dependent on the complexity of the invention, but is typically in the range of \$3700 to \$5600. The final cost of obtaining and maintaining a patent can add several thousand dollars more to the cost. However, the incentive for spending the money is that a strong patent directed toward a desirable product or method can command very large revenue streams as well as providing

insulation from competitors. A seemingly natural law of patents is that the more valuable the invention is, the more likely it will be fought over, and the more important the drafting and prosecution of the application will become in determining who wins. In other words, a poorly written and prosecuted patent will likely not be worth much. If you are going to take the time, energy, and money to apply for a patent, it is a good idea to find a patent attorney or agent who is not only familiar with the field of your invention, but who will also give you quality work. A poor quality discount or over priced patent will do no one any good, especially the one paying for it.

To obtain a patent you must meet several stringent requirements. The first requirement is that the invention must be of eligible subject matter. Eligible categories in the U.S. are limited to processes, machines, manufactures, or compositions of matter which have a practical utility. Thus, U.S. patent law defines four invention categories that Congress deemed the appropriate subject matter of a patent. The last three categories define "things" while the first category defines "actions" (i.e., inventions that consist of a series of steps or acts to be performed). The Supreme Court has stated that although patentable subject matter may be "anything under the sun that is made by man" there are some limits. The courts have held that such things as abstract ideas, laws of nature, and natural phenomena are outside the scope of patentable subject matter. This is based on the courts' recognition that patentable subject matter must be a practical application or use of an idea, a law of nature or a natural phenomenon. Generally, this requirement is easily met.

Another requirement is that the invention must be novel. Novelty is concerned with whether the invention in the patent application pre-exists as it is claimed in the application. A patent will not be granted if the invention is not novel. U.S. law, however, is peculiar since the ridged bar to a patent will not arise if during a period of less than one year before filing application the invention was in public use or on sale in the United States or if the invention was disclosed in a patent or publication anywhere in the world. Unlike the U.S., most countries do not have a "grace period" provision. This means that any prior use, sale, or disclosure will bar the grant of a patent. For example, if you or your employees start selling your newly invented fin system at a local surf shop or tradeshow, you have one year to get a U.S. application filed. However, you have likely blown your ability to get foreign rights. The lesson here is that before you sell, offer to sell, talk about, write about, or otherwise disclose your invention you should file an application and/or talk to an IP attorney about your strategy for the invention.

An invention is also required to be "non-obvious". Obviousness is found if, although the invention has not been identically disclosed, the invention is obvious from the prior art to a person having ordinary skill in the art to which the subject matter pertains at the time the invention was made. Obvious inventions are not entitled to patent protection. Generally, a claimed invention is non-obviousness if there are no prior art references that, alone or in combination, teach or suggest the invention as a whole including each element of the claimed invention. Determination of obviousness is a very fact based analysis and covers a fairly complex area of patent law. One place you can learn more about the topic is at the USPTO web site or by talking to a patent attorney or agent.

The application must also "enable" the invention. This basically means that the inventor's disclosure must enable one skilled in the art to make and use the claimed invention without undue experimentation. Factors to be considered in determining whether experimentation is "undue" include the breadth of the claims, the nature of the invention, the state of the prior art, the level of ordinary skill in the art, the level of predictability in the art, the amount of direction provided by the inventor, the presence or absence of working examples, and the quantity of experimentation needed to make or use the invention based on the content of the disclosure. The inventor must also describe the best way they know to practice the invention at the time they file the application.

The invention disclosure also must describe the claimed invention in sufficient detail such that one skilled in the art reading the description would recognize that the inventor had invented the claimed subject matter and had possession of the invention as claimed at the time the application was filed. Possession of the claimed invention is generally shown by describing the claimed invention with all of its limitations using words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. Possession may also be shown in a variety of ways, for instance, description of an actual reduction to practice, or by showing that the invention was "ready for patenting" such as by the disclosure of drawings showing that the invention was complete, or by describing distinguishing identifying characteristics sufficient to show that the applicant was in possession of the claimed invention.

Patent claims are arguably the most important aspect of an application since they define the scope of protection afforded the invention. A regular utility patent application must have at least one claim, often having over a dozen. The claims define the borders of the property the inventor is staking out. A simple but enlightening comparison to real property instantly conveys the importance of patent claims. Imagine being given the opportunity to stake out a claim to a piece of real property. In thinking about what land you wanted, you would consider the terrain and general lay of the land as well as such things as access to the water. The control of fertile fields, water, beach access, and ports of entry would add immense value to your claimed real property. As with selecting real property, a great deal of care and forethought must be devoted to preparing and drafting the patent application. Inadequate description of how to make and use the invention may erode or destroy a portion of the potential property. Claims that are drafted without an eye toward business strategy may provide competitors an entry into a market that could have been prohibited to them.

Surfing Patents, Where the Law Meets The Water

If you thought you knew about surfing, you haven't been hanging out with the individuals who drafted many of the patent related documents currently residing at www.uspto.gov. For instance, that thing you call a board has quite a few problems according to many of these inventors, and in many cases is referred to as a "craft" instead of a board. The

conventional wave riding craft, according to some inventors, seems to have all the hydrodynamic properties of a bent log. Of course these same inventors go on to tell you how their invention solves these problems. In addition, many of the surfing related patents are really educational. For example, in United States Patent No. 6,695,662 titled "Surfing Craft With Removable Fin" we learn a little about the history of surfing. In this patent the inventor tells us that "Lieutenant James King, serving under Captain James Cook during his third expedition to the Pacific, in 1779 wrote what is recognized as the first known written description of the surfing ever recorded by Western man. Referring to the locals at Kealakekua Bay on the Kona coast of the Big Island of Hawaii, King writes: Whenever, from stormy weather, or any extraordinary swell at sea, the impetuosity of the surf is increased to its utmost heights, they choose that time for this amusement: twenty or thirty of the natives, taking each a long narrow board, rounded at the ends, set out together from the shore. . . . As the surf consists of a number of waves, of which every third is remarked to be always much larger than the others, and to flow higher on the shore, the rest breaking in the intermediate space, their first object is to place themselves on the summit of the largest surge, by which they are driven along with amazing rapidity toward the shore." The patent goes on to disclose an invention that is directed toward solving the problem associated with transporting surfboards having glassed on fins. It solves the problem by making the fins removable...imagine that.

Some inventors have truly different ideas with regard to surfing for which they want a patent. Take for instance United States Patent Application No. 20040000265 titled Drag Reduction System and Method. The inventor first tells us that "In the case of surfing, reduced drag may translate into a substantially improved ability to propel a surfboard and catch a wave, as well as a longer and faster ride." While this may not be a shocker to most of us, I imagine that if saw a board incorporating this invention you be frozen in your tracks. The invention, you see, includes a fluid injection system which releases compressed air through openings in the bottom of the surfboard. Apparently, in operation "injection may be enabled for short durations as determined by the user. For example, upon activation, the control means may enable injection for only a determined period of time (e.g., 5 or 10 seconds). Thus, injectant can be conserved and used sparingly at moments when the user most desires drag reduction, such as for a surfer to catch a wave". This patent makes you wonder what activation of this thing sounds like, and whether instead of just badly dinging your board it just explodes in your face if the compressed air tank is punctured? Of course the inventor also envisions you will be retrofitting your favorite board with "a fluid injection system that may be sold as a kit".

Often inventors agree on what is needed to make great board but they differ greatly on how to achieve it. The inventor in United States Patent No. 6,718,897 titled Rideable Wave Propelled Watersport Board tells us, "watersport board equipment is designed sleek and smooth (hydrodynamic) for the very purpose of creating as little turbulence as possible. In general, the more turbulence, the more friction and the result is a reduced speed. Because the inventor's stepped bottom surface design produces so much turbulence and bubbles, it literally introduces a whole new dynamic. Because of this dynamic, wet surface area is reduced. The result is less friction and more speed thereby producing a clear advantage for the rider. The strakes that extend downwardly from the bottom surface of the step members create direction of flow of the bubbles and turbulence away from the nose of the watersport board. Thrust or drive is produced when turning that accelerates forward movement. The strake is generally shallow in depth or height and relatively long with respect to its height and width. The strakes may be mistaken for fins because of the shape but their function is very different." Another patent is United States Patent No. 3,747,138 titled Hydrofoil Surfboards. You should definitely check out the front page drawing and mathematical formula for lift the inventor has disclosed.

In looking through the surfing patents you will find that increased performance is not the only things inventors want, in fact, many inventor are also concerned with your safety and comfort. For example, United States Patent Application No. 20030233694 titled Protective Swimsuit Incorporating An Electrical Wiring System is direct toward a "protective swim suit to be worn by swimmers and surfers". Apparently the inventor believes protection can be obtained by incorporating electrodes into the suit. "In use, the suit generates an electromagnetic field in a volume of water about the wearer, which acts to repel targeted aquatic creatures such as sharks". I am sure it must have some other interesting effects as well. In United States Patent No. 6,665,882 titled Surfing Shorts With Wetsuit Undergarment the inventor wants to help us obtain "a wet suit garment that can be worn under surfing shorts to allow a much longer time in the water while surfing in waters not requiring a full wet suit while still maintaining the preferred style of surfing shorts".

Even before you actually get to the water there are inventors thinking about you. For example, United States Patent Application 20020170104 titled Body Covering Garment For Use During Clothes Changing. This inventor identifies that "the problem of minimal or insufficient changing facilities is not limited to remote coastal areas. In many instances, populated beach environments are also lacking in the availability, number and quality of changing facilities. As a result, swimmers share this difficult problem with surfers in simply attempting to find a suitable means for changing clothes at the beach or other water sport areas". Apparently, this is not your ordinary towel change. In United States Patent Application 20040065705 titled Surfboard Carrying and Mounting Apparatus the inventor is worried we are buying too many products. For instance, "one for storing the surfboard, one for carrying the surfboard and one for mounting the surfboard on the roof of a car". The inventor goes on to say "what is needed is a low-cost, easy to manufacture surfboard carrying and mounting apparatus which is easy to use, easy to store, wall/ceiling rack and vehicle transportation rack all in one product. The present invention fulfills these needs and many others".

In addition, there are numerous patents and applications that cover things you might instantly recognize or which you might actually own. These well-known items are often part of an organization's intellectual property portfolio. For example, United States Design Patent Number D417,542 published as being assigned to Rip Curl International Pty Ltd. (Torquay, AU). This patent is directed to "the ornamental design for a wetsuit neck, as shown and described". Another example is United States Patent No. 5,898,934 titled Neck Entry Wetsuit is published as being assigned to O'Neill, Inc. "This patent discloses a neck-entry wetsuit with an expandable collar formed by a gusset insert that folds in

on itself, but which allows both the collar and the neck region to expand when unfolded". Patent number 5,898,934 is associated, on at least one web site, with the O'Neill Z.E.N. ZIP System Entry system. Based on this last example you can easily see the evolution of an idea, to get a good wetsuit seal, into a commercially successful product. In reading these patents you also get a great understanding of what technology goes into many aspects of surfing. In fact, you can learn about such things as the ocean, hydrodynamics, ocean life, resins, foam, and wetsuit construction.

As you have seen, patents don't just apply to genes and computer chips. So the next time you have an "great idea" you might just know what to do with it.

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Thomas A. Hatfield

Surfer, Registered Patent Attorney with the United States Patent and Trademark Office, Active attorney in California and Connecticut

thatfield@pctlaw.com