

Why Most Patents Are Invalid

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Other than the "trade secret," the patent is the only way for a corporation or independent inventor to protect his invention from being stolen by others. Yet, about 60 percent of all the patents sued upon in the federal courts are held invalid, and hence unenforceable. Why are the vast majority of corporations and inventors finding it impossible to enforce their patent rights in a court of law? What can the corporation or independent inventor do to obtain court enforceable patent rights? This article will attempt to answer both of these questions.

In order to understand the answer to the first question as to why most patents are invalid, some minimum amount of background is necessary. Specifically, one must first know both what a patent is, as well as the legal process for obtaining one.

Basically, it is a document issued by the U.S. Patent and Trademark Office which grants to its owner a seventeen year monopoly on the invention described therein. The patent document includes one or more printed sheets of specification and drawings which describe the invention. The law requires that the specification describe the invention in specific enough detail "so . . . as to enable any person skilled in the art to which [the invention] pertains. . . . to make and use the same, . . ."² The specification is concluded by

one or more definitions of the invention, called "claims." Legally speaking, a patent is a seventeen year right to exclude others from making, using, or selling the "claimed" invention. Thus the claims are the heart and soul of the patent.

To better illuminate just exactly what a claim is, let us suppose that Thomas Edison has just applied for a patent on his incandescent electric light bulb. As you might recall, Edison discovered the first commercially practical light bulb by passing an electric current through a *carbon* filament in a high-vacuum glass bulb. Prior to this discovery, most everyone had been futilely experimenting with *metallic* filaments which glowed for a while and then melted. Following the specification, Edison's patent attorney might have defined or claimed Edison's invention in the following terms: "An electric incandescent lamp including a carbonaceous filament enclosed in a glass bulb, and means for passing an electric current through the filament."³

So much for what a patent is. Now let's look at the legal process of obtaining a patent.

The process begins when an inventor approaches a patent attorney with what he believes to be an invention. At this juncture, the patent attorney usually advises the client to have a "preliminary search" made of the "prior art" (i.e., the

records of all earlier patents and technical literature) on file at the U.S. Patent and Trademark Office. The purpose of this search is to determine whether or not the inventor in fact actually made a patentable invention. The purportedly new features of the invention are compared to the results of the prior art search. If, in the attorney's opinion, the invention is patentable in view of the prior art, a patent application, complete with specification and claims, is filed in the U.S. Patent and Trademark Office.

In the next step of the process, the application is examined by a federal employee called a Patent Examiner who carefully reads the specification and claims of the application. The primary function of the Patent Examiner is to decide whether or not the claimed invention is legally patentable in view of the prior art. He does this by searching the pertinent prior art, and carefully comparing the claimed invention with the best prior art he finds.

In making the decision as to whether or not the claimed invention is patentable, the Patent Examiner, among other considerations, applies two legal tests to the claims. First, he checks to see if the claimed invention is identical to any of the inventions disclosed in the prior art.⁴ In other words, the Examiner checks to see if the invention has been invented before. If the invention is not so disclosed, he applies the second (and more difficult) test of patentability, and determines whether, in his opinion, the claimed invention would be "obvious . . . to a person of ordinary skill in the [pertinent] art . . ."⁵

If, in the Examiner's opinion, the invention defined by the claims is either "disclosed" or "obvious" in view of the prior art he finds, he "rejects" the patent claims and sends a copy of his opinion to the patent attorney. The patent attorney then normally "amends" the claims of the

original application by rewriting the claims at the end of the specification so that they define the invention in more narrow or limited terms. The attorney then submits the amended application back to the Patent Office, and the cycle may be repeated.

Finally, the attorney and the Patent Examiner usually arrive at some sort of agreement as to how broad or narrow the claims may define the invention without the prior art either disclosing or rendering obvious the claimed invention. To cast some light on this step of the process, let's follow up on our electric light bulb example. As you recall, Edison, in our semi-fictitious example, claimed "An electric incandescent lamp including a carbonaceous filament enclosed in a glass bulb . . .". Let's suppose that the Examiner searches the prior art on file at the U.S. Patent and Trademark Office and finds a reference disclosing an electric lamp which utilizes a carbonaceous filament in a glass bulb filled with an inert gas. The Examiner would "reject" Edison's claim as identically disclosed by the prior art. In response to such a rejection, Edison's patent attorney might *amend* (or narrow) the claim to read "An electric incandescent lamp including a carbonaceous filament in a *substantially evacuated* glass bulb . . ." The Examiner, finding no references in the prior art which either disclose or render obvious the use of carbonaceous filaments in substantially evacuated glass bulbs as specifically defined by the claim, *allows* the application, and a patent is issued to Edison, which gives him a 17 year right to exclude others from making, using or selling his carbon filament, substantially evacuated light bulb.

We are now in a position to understand why most patents are invalid. The short answer is: Most patents are invalid because the inventions claimed in them are either disclosed by or rendered "obvious"

by the prior art, and therefore fail one or both of the legal tests for patentability that we discussed earlier. But hold on! Haven't the patent attorney and the Examiner both searched the prior art on file in the U.S. Patent and Trademark Office and found the "best", or most pertinent prior art? Unfortunately, the answer to this question, more often than not, is "no". In fact, it has been estimated that "uncited prior art" (i.e., pertinent prior art *not* found by either the patent attorney or Patent Examiner, but later discovered during an infringement trial) figures into the result of about 72 percent of all the court holdings of patent invalidity!⁶

To illustrate exactly how this works, let us suppose that Edison discovers that a corporation by the name of the Electric Pirate Company is manufacturing and selling incandescent light bulbs identical to the one he patented. Let us further suppose that Edison and his patent attorney bring a law suit against the Electric Pirate Company for patent infringement.⁷

Prior to the trial, the patent attorney for the Electric Pirate Company knows that he stands a good chance of successfully defending his client at the infringement trial if he can prove that the Patent Examiner did *not* consider the "best" prior art when he made his final determination that the claimed invention was neither disclosed nor rendered obvious by the prior art. So he rolls up his sleeves and makes a diligent, *exhaustive* search of *all* the prior art in the U.S. Patent Office and anywhere else he can think of. And lo and behold! . . . he finds a reference disclosing an incandescent electric light having a carbonaceous filament in a *partially* evacuated glass bulb! Later, at the trial, the judge compares this new, better prior art with the claimed invention (i.e. "An electric incandescent lamp including a carbonaceous filament in a

substantially evacuated glass bulb . . ."), and re-applies the two tests of patentability discussed earlier. Unsurprisingly, the judge rules that the claimed invention would be "obvious . . . to a person of ordinary skill in the [electric lighting] art . . .",⁸ and is therefore invalid. The Electric Pirate Company wins, and yet another patent becomes part of the sixty percent invalid majority, all because the attorney and the Patent Examiner failed to *locate* "best" prior art.

Just why isn't the "best" prior art located by either the attorney or the patent examiner? In the case of the patent attorney, the answer may be summed up in one word—time. Most inventors do not expect to pay more than \$250-\$300 for a preliminary patentability search. Further, it is not unusual for a patent attorney to charge \$50 an hour for searching the prior art at the U.S. Patent and Trademark Office and writing the report. The opinion and search report typically takes one hour to write. This often leaves the patent attorney with the formidable task of sifting out the few "best", or most pertinent prior art references from the hundreds or thousands of pertinent references on file in U.S. Patent and Trademark Office *in four or five hours!* Although the patent attorney uses such devices as the U.S. Patent Office Classification Manual to abridge his task, it is apparent that, at best, only a "spot check" search of the prior art may be made—and *not* an exhaustive or complete search.

As to why patent *Examiners* typically do not locate the *best* prior art, the answer may be summed up in the same word—time. As Judge Baldwin stated in the case of *Norton v. Curtis*:⁹

"With the seemingly ever-increasing number of applications before it, the Patent Office has a tremendous burden. While being a

fact-finding as well as an adjudicatory agency, it is *necessarily limited in the time permitted* to ascertain the facts necessary to adjudge the patentable merits of each application." [Emphasis added.]

Furthermore, the Examiner's rate of career advancement is largely dependent on what the Civil Service terms his "rate of disposals," i.e., how many patent applications he examines and acts on within a given period of time. The *validity* rate of the patents issuing from these patent applications makes *little or no* difference on the Examiner's career advancement. Although most Examiners are quite diligent in attempting to find the "best" prior art in the Patent Office when examining claims, is it any wonder that, under the time and incentive limitations they work under, they often overlook the "best" prior art?

Under normal circumstances, then, neither the patent attorney nor the Patent Examiner has the time to locate the "best" prior art on file in the Patent Office.

Further compounding the attorney and Examiner's time problem is the fact that the prior art on file at the Patent Office is *not* a complete record of *all* the prior art. Legally speaking, "prior art" includes *every* prior technical publication *in the world!* Thus, even if the attorney or the Examiner should spend the time to locate the "best" prior art on file at the Patent Office, there is always the chance that the resulting patent may later be invalidated in a federal court by an attorney who succeeds in finding a better piece of prior art among the millions of technical references that exist outside of the files of the Patent Office.

So what can an individual inventor or corporation do to obtain strong patent protection?

Obviously, the single most effective technique in obtaining strong, court en-

forceable patent protection is to make sure that the Examiner considers the "best" prior art during the prosecution of the patent application. Let's see how this can be accomplished.

Since, as we have previously indicated, the Examiner often cannot locate the best prior art within the time and incentive constraints imposed upon him, the applicant must either locate the "best" prior art himself, or have someone else find it for him.

For the prior art existing outside of the Patent Office, the inventor himself is often in the best position to locate references pertinent to his invention. A good place to start searching may be either the inventor's own personal library, or, if the inventor works in a corporation, the corporate technical library. From there the inventor might go to his local public library, or to the library of a university or technical institute.

If such personal searching is impractical, the inventor might consider hiring any one of a number of technical literature research services to perform such searching for him. Examples of such include the search service offered by the National Technical Information Service located at Springfield, Virginia, and the Dialog Service offered by the Lockheed Corporation of Palo Alto, California.

For the prior art existing *inside* the Patent Office, it is again possible for the inventor to make his own search inside the U.S. Patent and Trademark Office located in Crystal City, Virginia. Again, if personal searching is impractical, the inventor can authorize his patent attorney or other competent patent searcher to make a *diligent, exhaustive* search (as opposed to the "preliminary patentability search" discussed earlier) of *all* the pertinent prior art on file in the Patent Office.

Even though such a procedure would raise the *initial* cost of obtaining a patent by hundreds of dollars, it could save the

applicant thousands of dollars later on if he should ever attempt to enforce his patent in court against an infringer.

So much for patent applications which are either already pending in the Patent Office or about to be filed there. But what about patents that have already been issued? Is there any procedure whereby the validity of an existing patent may be strengthened? The answer, fortunately, is "yes". The law has long provided a procedure by which an existing patent may be "re-examined" by a Patent Examiner and "reissued" if found to be potentially invalid . . . by reason of the patentee claiming more . . . than he had a right to claim in the patent . . ."¹⁰ Thus, it is possible for the patentee to have his patent attorney and technical literature search service make an exhaustive search of the prior art to see whether or not the Examiner considered the "best" prior art when prosecuting the application. If the exhaustive search discloses that the Examiner did *not* consider the "best" prior art, it is then possible, pursuant to the "reissue" procedure, to re-submit the patent to the Patent Office with *amended* claims which redefine the invention in terms which are neither disclosed nor "obvious" in view of the newly found "better" prior art.

While the technique of performing an exhaustive prior art search either before or after the issuance of a patent application cannot *guarantee* that the courts will hold the resulting patent valid, it *can* enhance the chances of a patent surviving a court test. And enhanced chances are reason enough to utilize such a technique in an era where the courts are striking

down six out of every ten patents brought before them.

Footnotes

¹Patent Bar Registration No. 28, 290, Irons and Sears, 1785 Massachusetts Avenue, N.W., Washington, D.C. 20036. Phone (202) 466-5200.

²35 United States Code §112.

³Although Thomas A. Edison was in fact awarded U.S. Patent 223,898 on January 27, 1880 for his carbon filament light bulb, the claim language used throughout the examples in this article differs from the actual claim language used in the prosecution of this patent in order to more clearly illustrate the points of this article.

⁴35 United States Code §102.

⁵35 United States Code §103.

⁶Koenig, *Patent Invalidity: A Statistical and Substantive Analysis*, §5.05, page 5-49 (1976).

⁷Although Edison's U.S. patent number 223,898 was in fact subsequently involved in an infringement trial, the trial example given in this article is wholly fictitious.

⁸In actual fact, the federal courts held the invention claimed in Edison's original incandescent bulb patent to be valid. The language of the semifictitious claim used throughout this article is designed to illustrate how a patent obtained on a perfectly bona fide invention may later be held invalid by the courts when the best prior art is not considered by the U.S. Patent and Trademark Office prior to issuing the patent. Remember that Edison's actual discovery was that a practical incandescent light could be made by passing an electric current through a *carbonaceous filament in a high vacuum* bulb. However, in our semifictitious example Edison's patent attorney, actually *claimed* "An electric incandescent lamp including a carbonaceous filament in a *substantially evacuated* glass bulb . . ." in order to get the broadest patent protection possible. Because the *claimed* invention was somewhat broader than the *actual* invention, the resulting patent was vulnerable to being invalidated by the prior art, even though the inventor in this case actually produced a patentable invention.

⁹433 F.2d 779, 794 (CCPA 1970).

¹⁰35 United States Code §251.