

LEARNING TO DO A PATENT SEARCH

Before your patent is filed, but after you have properly reduced its essence to either a disclosure statement or a working model, you perform a patent search to get a sense of the idea's novelty. Generally a patent search surveys the patent applications that have been published, patents that have issued and looks for other articles, processes, apparatuses and compositions of matter that may incorporate ideas similar to you inventive concept. To do this you will go to various public websites that have patent data bases and use various search engines such as Google and Yahoo to do searches. Most all searching is done on the basis of key words and phrases, so when you put your idea done on paper, consider what words and phrases best describe it.

SEARCHING MAY BE DONE ON-LINE. THE USPTO USES KEY WORD CONCEPTS- THESE ARE EXPLAINED AT the U.S. Patent Office [WEB-SITE](#)

READ: [Full-Text Database Help](#) at:

<http://patft.uspto.gov/help/help.htm>

There are over 8.0 million inventions patented in the U.S. alone and you can benefit greatly by looking at what others did in solving a problem, much perhaps like the problems you are trying to solve. You will want to do a Google search to survey items similar to your invention such as products or services currently on the market, to make an assessment about whether your patent stands a chance of surviving the patent examination at the USPTO.

The USPTO Web Patent Full-Text Database (PatFT) contains the full-text of over 3,000,000 patents from 1976 to the present, plus limited bibliographic data for over 4,000,000 patents from 1790 to 1975. It provides links to the Web Patent Full-Page

Images Database (PatImg), which contains over 70,000,000 images, including every page of over 7,000,000 patents from 1790 to the most recent issue week.

I will show you how to do a patent search, but keep I mind that you can also hire patent attorneys, patent agents and companies that do patent searches. Searches are done for a variety of reasons. The most common reason is to determine if your invention is novel. Other searches are done to determine if even though your invention is novel, whether you still have the right to practice the invention. For example, if you invent the arms for a chair, you made need permission to use the arms on a chair that is patented by someone else. Other searches are done to insure that your idea will not infringe upon another patent. You are interested in gaining confidence that your invention is novel. This does not usually assure you that the patent office will not find a patent that describes and invention that it alleges is like your invention. It may also find two or more publications or inventions that when what they describe are combined amount to your invention. In any case you are advised to do a patent search before you devote time and dollars to attempt to patent your invention.

SEARCHING PUT INTO PERSPECTIVE

An informal search is done by retrieving patents and patent applications on the patent office database (usually from 1976 forward) and determining if there is anything similar to what the inventor has disclosed. Different inventions bring with them varying levels of search complexity. For example my experience is that software inventions are

difficult to search relative to mechanical fixtures. Part of the difficulty has to do with relative standardization of what things are called.

Searches also are of varying scope depending on the activity. If you were buying an expensive business that heavily depended on the patent (for example paying \$1,000,000 for the business) a patent lawyer might contract the search out to a search company. In turn the search company might spend 10 to 20 hours exhaustively searching the patent office records and published engineering and scientific literature to determine if such an idea was ever published. This kind of a patent search might run \$2,000-\$3000. If a patent lawyer were to provide a patent validity opinion, that is to determine if a patent after issuance could withstand rigorous scrutiny in a litigation setting, it might cost in the neighborhood of \$10,000.

In a case involving litigation a client of mine spent over \$100,000 in determining the validity of a patent. If at the other end of the activities an inventor were seeking to patent an idea and wanted a general idea if it were novel they would do a novelty search. Novelty searches take anywhere from under an hour to several hours. Once a patent application is filed the patent office also does a search. And, based on my experience they will find something that then requires the inventor to defend its invention against the referenced patent or publication they may have found. In fact this is how the patent system strengthens a patent application, by the inventor having to defend it.

INTERNATIONAL SEARCHING

More extensive searches covering the whole world can be performed, but these are very expensive and the usual applicant must be satisfied to search the US records for any prior inventions that come close to his or her invention.

Inventions that bear upon your invention are referred to as prior art. They form the basis for distinguishing your invention, carving out a piece of intellectual territory that you can own exclusively. It's the separation from other ideas that ultimately separates your patent from all others.

An international search begins at the World International Property Organization <http://www.wipo.int/pctdb/en/>. This facility allows you to search 1,601,877 international patent applications and to view the latest [information and documents](#) available to the International Bureau. The site permits searching different countries in different languages: Go to <http://www.wipo.int/pctdb/en/> for an example of the power of this facility.

COST

If you hire a firm to conduct the patent search a patent search will typically cost in the neighborhood of \$700 to \$1500. It typically takes five to ten days to complete. As mentioned, you can hire a patent lawyer to do the search, hire someone who holds themselves out as a patent searcher (yellow pages, WEB, trade magazines) or do it yourself.

You also can go to Arlington, Virginia and do the search yourself. Some or all the search effort will take place at the patent office search room.

NEAREST LIBRARY

In some cases the search can be performed on databases accessible through a computer and telecommunications set up. Certain libraries have been established as patent office repositories where copies of all US patents are archived;

<http://www.uspto.gov/go/ptdl/>. Searching can be performed at these repositories, however, it is typically more time consuming than searching via computer on line or using the US patent office search room.

You can conduct your own search for free using the US Patent and Trademark Office website at <http://www.uspto.gov/> or at other WEB sites that maintain data bases, either for a fee or free such as <http://www.delphion.com/> or IBM <http://www.patents.ibm.com/ibm.html>.

The search instructions when you get there will be self-explanatory.

U.S. PATENT CLASIFICATIONS AND DEFINITIONS

Every class of invention conceivable has been numerically categorized. It provides for the storage and retrieval of every patent document that a patent examiner needs to review when examining patent applications.

There are hundreds of such numbers, which can serve as markers to search your invention for prior art. This number appears on every issued patent. You do not need to provide the patent office with this number as they will assign one for your invention. The subject matter and associated number can be found at:

<http://www.uspto.gov/web/patents/classification/>. Also please familiarize yourself with <http://www.uspto.gov/web/offices/pac/dapp/sir/co/examhbk/index.html> the manual that the patent examiners use to assist in their searches.

OBTAINING COPIES

Although you can sometimes print copies from the above-mentioned websites, it actually is easier to order printed copies of any patent identified by its patent number.

You may purchase copies from: The United States Patent and Trademark Office, Washington, D.C. 20231.

Order Copies of U.S. Patent and Trademark Documents by going to <http://ebiz1.uspto.gov/oems25p/index.html>.

You probably have no need for certified copies of patent applications, but for various formal legal proceedings you may. The files are referred to as patent file

wrappers, which contain issued patents or published applications. These may now be ordered and downloaded to your computer.

If the patent file wrapper is on the USPTO PAIRS system you can download it from free.

Search [PAIR](#) for publically available patent file wrappers. View the contents of the file wrapper by clicking on the Image File Wrapper tab. If the tab is not displayed (i.e., a paper document) then view the transaction history to obtain the dates and titles of the papers.

Otherwise if the file wrapper is not on PAIRS you may have to pay for it:

Payment Methods: In addition to credit card (Visa, Master Card, American Express, and Discover), payments for orders may be made using PTO deposit account or electronic fund transfer. When paying for your order, you have the option of entering your docket number (or customer reference number). The number will be displayed on your order confirmation receipt page which you may print as a record of your order.

Delivery of Documents: Certified copies of issued/published patent applications as filed and patent file wrappers may be delivered over the Internet or mailed to you on CDROM. Internet delivery is also available for uncertified copies of patents and patent

application publications. Other documents may only be delivered in paper form via U.S. Postal Service.

Available service options, fees and delivery methods vary by document type. Processing times are dependent upon availability of systems and PTO business hours. Please refer to the [Fee Table](#) for a listing of documents, definitions, services, and fees.

Copies may also be obtained from Patent and Trademark Depository Libraries.

In any case the files often provides valuable insight into how another patent attorney or patent agent prepared his/her clients patent application and prosecuted the application as well.

SEARCHING USING THE USPTO DATABASE

The electronic search systems at the USPTO include both word searchable text databases of documents and image searchable databases of documents. From your PC go to: <http://patft.uspto.gov/>

Here you can search issued patents or published patent applications. In each case you can search via patent number if you have it or you can do a quick search or and advanced search. The quick search allow you to use two search terms in a Boolean fashion (AND/OR) to search for patent with two attributes, usually an English word. However, the Advanced Search will allow you to use a string of search terms that include

more than just two terms. The search terms are most frequently words although you have the ability to search on thirty one different attributes, such as a word, a the class of invention, date of publication, an inventor, or an issue date. The list is displayed at of <http://patft.uspto.gov/netahtml/PTO/search-adv.htm>.

EXAMPLES ARE:

To search all patents from 1976 through the present that contain the words car and carburetor in the patent specification use the following procedure by typing in the window:

spec/car and carburetor

To search on a title of all inventions with tennis and (racquet or racket) then use the following procedure by typing in the window:

ttl/(tennis and (racquet or racket))

Other examples are issue date and inventor:

isd/1/8/2002 and motorcycle

in/newmar-julie

Once the list of patents of interest appear then you must begin to sift through the list for the ones that appear potentially relevant.





For example: if you go to Quick Search

<http://patft.uspto.gov/netahtml/PTO/search-bool.html>

search on the terms in all fields of the patent, (a field means the title, the specification, the abstract, etc. using the search terms:

carvalko AND fuel

The Search engine will return:

PAT. NO.	Title
1	6,702,948  Mobile diesel fuel enhancement unit and method
2	6,658,933  Fill-level indicator for a liquefied-petroleum-gas tank
3	6,432,298  Purifier for separating liquids and solids
4	5,200,615  Method and apparatus for detecting the presence of fluids

Each of the listed patents 1 through 4 having the associated patent numbers and titles will contain the search terms.

INTERPRETING SEARCH RESULTS

Now go to the USPTO web site at <http://www.uspto.gov/patft/index.html> and obtain a patent from its database. For example where is indicates QUICK SEARCH again type in my name CARVALKO. This will bring up but a few of the patents I have drafted, or patents on my inventions or where another inventor referenced my patent. Click on any patent in the list and the patent will appear in your browser. The patent that appears in the browser will not have the drawings to view. For that you must click on IMAGE and follow the instructions. For some of you may have to download a viewer, which is free and again the site provides instructions. I advise that you look at the drawings as you go through this exercise.

Use the patent you downloaded in your browser as an example to refer to during this session.

We will cover the parts of the patent in depth below, but to get started the following are the critical parts you must read at the beginning of the search analysis.

I READ THE PATENT IN THIS ORDER:

ABSTRACT
DRAWINGS
CLAIMS

Then if I am still interested in the patent, I proceed to read the Background, Summary of the Invention and the Preferred Embodiment also called the Description of the Invention.

READ EVERYTHING

For example, when you have collected the issued patents that are relevant to your invention you must read them carefully.

I TAKE A LOT OF NOTES, SO I CAN PICK UP ON THE LANGUAGE OF EXPRESSING AN IDEA IN MY PATENT. PATENTS ARE FEDERAL PUBLIC RECORDS AND YOU CAN GENERALLY COPY LANGUAGE WITHOUT VIOLATING ANY COPYRIGHTS.

The drawings or the pictures do not reveal the whole idea.

In fact most times the real significance lies buried somewhere in the written specification or claims.

Read the disclosures and especially the claims. Keep a dictionary handy since you are not expected to be acquainted with the breath of specialized terms that a patent often employs.

Look at the patents in some order, typically chronologically. This way they may represent a history or evolution in the art.

Ascertain where your invention is distinguished, either because it takes fewer parts, or it achieves a result that none of the others were capable of.

ADVANCED SEARCHING

Occasionally a concern may need to know what patents exist for an entire class of inventions. In this case I might produce a patent gazette. For example, let us explore a gazette related to the insurance industry. It would list all United States Patents that have issued in patent classes 705/4 and 705/1, 709/200 709/201 and 709/202, the classes most likely of interest to insurance companies. Class 705/4 relates to Insurance (e.g., computer implemented system or method for writing insurance policy, processing insurance claim, etc.); and Class 705/1 relates to Automated Electrical Financial or Business Practice or Management Arrangements. (See, **Error! Reference source not found.** and **Error! Reference source not found.** below for expanded definitions).

Therefore, regarding the above, the search criteria would be class or CL followed by the class of the invention as found in the Manual of Patent Classification. The subject

matter and associated number can be found at:

<http://www.uspto.gov/web/patents/classification/>.

The information searched is always date sensitive. As patents age they may expire for various reasons, typically because maintenance fees were not paid. I may only included patents issuing since 1996 for reasons that a particular technology simply did not exist before that. Other insurance-related patents predating 1996 obviously exist. Some types of patents relevant to particular developments and interests may simply not existed. For instance beginning in 1998, the U.S. Patent and Trademark Office began to more liberally consider business method patents. Since that time these types of patent have proliferated especially within the financial services and e-commerce industries. Over the long term, these kinds of patents will greatly affect technological and methodological direction and progress in the insurance and investment community, but prior to 1998 they were virtually unheard of.

It is possible that cutting and pasting directly from the USPTO database of candidate patents into a word document you can create hotlinks of your compilation.

If you wish to read the entire patent you need to only hotlink to the U.S. Patent and Trademark Office website as previously explained. If your browser is connected to the Internet, the link will lead you to the patent office search engine.

In any case the search provides valuable insight into the state of the art and gives the inventor a gauge as to where the invention really lies. It also serves to educate the patent attorney about what the art is about and directs his focus as to where to place emphasis in your patent application.