



The Biometric Bike Lock

A Note on How to Use Patent Information and Search Effectively

Lets suppose you think that you have lost your padlock key once too often and you can't remember the number for your combination padlock. Instead you think it would be great if your lock knew you by some biometric system – perhaps recognise your thumbprint or your eye. This is not an invention yet because you don't know how to solve the technical problems so you are not in a position to write a sufficient description - an essential requirement for your patent application. It might have been done before. There may be competitors. Which biometric sensor is going to work for this application? Patent Searching can answer all these questions.

The Free Patent Resources

Espacenet http://ep.espacenet.com/?locale=EN_ep is the biggest access point for patent documents from many countries.

PatentScope <http://www.wipo.int/pctdb/en/> allows you to access all International PCT applications. This has the ability to search within the text. Because it is PCT applications the material you find here will be ideas that are considered by the applicants good enough for wider protection.

USPTO <http://www.uspto.gov/patft/index.html> allows you to access just US patents and applications. This is most useful if your ideas are in software or in the business method sectors which are more difficult to patent elsewhere.

Step 1 – Is there a Product out There?

A naïve search for exactly what you are looking for on Google is a good start

Step 2 – Is there a Patent out There?

Try the same search in Espacenet.

Typical problems are too many or too few hits.

Too few - you need to break down the query. Are we interested in Biometric locks that would work as a bike lock or just bike locks or should it be bicycle locks.

Too many – try going to the structured search page or the smaller USPTO or PatentScope databases. You can always come back to Espacenet when you have decided what you are really interested in.

Still too many


Time to look at the classification. Every patent that has been searched by a Patent Office has been allocated a class mark from the **International Patent Classification** (IPC). You can search it here <http://www.wipo.int/tacsy/> . The IPC is like the classification system used in your college library and the University Library, but it is specially designed for the technical subject matter of patents. It is very finely divided but you start with just eight big groups each identified with a letter A-H. Each symbol after that identifies a subset of the technology



above. It goes down a long, long way. Four symbols is a safe start.

Bicycle locks have their own class mark **E05B-71/00**

But if the lock is integral with the bicycle its **B62H-5/00** – If you decide that's the way you want to address the problem then stick with that.

From the [Tacsy](#) page clicking on the  symbol beside the class mark and this will get you to a listing of linked patents in the database of your choice.

Methods and arrangements for recognising patterns such as fingerprints are in **G06K-9/00**.

When you have discovered a few class marks you can return to a structured search page and start to see what comes through your queries.

Step 3 – Reading the Patents

The **Abstract** is a brief summary of what the applicant thinks he has contributed. However if he has invented a lock it may only say that it could work as a bicycle lock or even as a padlock in the depths of the text.

If you are interested in whether your ideas are new then anything anywhere in any part of the text needs to be reviewed. It is only an invention if it has never been suggested before, by anyone, anywhere in public.

If you just want to know how something works then a well written section on the **Background of the Invention** can be useful.

If you are concerned that a patent you have found could stop your business plan in its tracks then you need to find the **granted patent** and then read the **Claims**. The documents you see first are applications – normally with an A after the number. The claims in these documents may change before a patent is granted and the B document is published. Lots of applications never get granted. There are many reasons – the idea didn't work is one – the applicant ran out of funds or enthusiasm is another – many just were not new.

Step 4 – Looping the Loop

If you find one document that is in the general area that you are interested in, you can use it as a crib to find more. Look at the class marks it has. Maybe the applicant or the inventor has continued to develop his ideas, search by his or her name.

More Help

Librarians love to help. Your nearest library within the PATLIB network – holding physical collections of patents is the [British Library](#) a few yards from Kings Cross in London. You need to register as a reader (free) but they have impressive collections and expert advisors who can make your trip worthwhile. If one of the fee charging services is needed – they can be persuaded to log you in.

Once you have exhausted the free – there's much more you can find out paying an expert – the Patent Office, a specialist commercial searcher or your patent attorney to help – if you still need it.