

Electric Lamps

# GENERAL ELECTRIC COMPANY,

44 BROAD ST., NEW YORK CITY. 500 ATLANTIC AVE., BOSTON, MASS.

## THE EDISON INCANDESCENT LAMP

IS THE ONLY  
LAWFULLY



INCANDESCENT LAMP  
MADE.

The rights of the  
Edison Patent  
has been  
by  
U. S. Circuit

Edison Company  
against infringers  
decreed  
the  
Court of Appeals

ALL OTHERS INFRINGE THE EDISON PATENTS AND ARE COUNTERFEITS.

<http://inventors.about.com/library/inventors/blight.htm>

**Contrary to popular belief, Thomas Alva Edison didn't "invent" the light bulb, but rather he improved upon a 50-year-old idea.**

**"Henry Woodward of Toronto and Matthew Evans patented a light bulb in 1875. Unfortunately, the two entrepreneurs could not raise the financing to commercialize their invention. The enterprising American Thomas Edison, who had been working on the same idea, bought the rights to their patent. Capital was not a problem for Edison: he had the backing of a syndicate of industrial interests with \$50,000 to invest - a sizable sum at the time. Using lower current, a small carbonized filament, and an improved vacuum inside the globe, Edison successfully demonstrated the light bulb in 1879 and, as they say, the rest is history." (National Research Council of Canada)**

## What is intellectual property or IP?

Intellectual property, often known as IP, allows people to own their creativity and innovation in the same way that they can own physical property. The owner of IP can control and be rewarded for its use, and this encourages further innovation and creativity to the benefit of us all.

In some cases IP gives rise to protection for ideas but in other areas there will have to be more elaboration of an idea before protection can arise. It will often not be possible to protect IP and gain IP rights (or IPRs) unless they have been applied for and granted, but some IP protection such as **copyright arises automatically, without any registration, as soon as there is a record in some form of what has been created.**

Note: IP law varies from country to country, general principles apply widely, various cooperation treaties attempt to harmonise.

<http://www.intellectual-property.gov.uk/index.htm>

The four main types of IP are:

**patents** for inventions - new and improved products and processes that are capable of industrial application

**trade marks** for brand identity - of goods and services allowing distinctions to be made between different traders

**designs** for product appearance - of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture or materials of the product itself or its ornamentation;

**copyright** for material - literary and artistic material, music, films, sound recordings and broadcasts, including software and multimedia.

However, IP is much broader than this, extending to trade secrets, plant varieties, geographical indications, performers rights and so on.

## How long does protection last?

The duration or term of protection by IP depends on the type of IP but are broadly as follows:

copyright in author's works lasts for the life of the author plus 70 years after their death. Copyright in sound recordings and broadcasts is shorter - usually 50 years. Copyright in a published edition expires 25 years from the end of the year in which the edition was first published;

registered design protection lasts for 5 years but can be renewed up to a maximum of 25 years;

patents can be renewed up to a maximum of 20 years and supplementary protection certificates giving an extended term are available for pharmaceuticals;

trade marks can be renewed indefinitely.

## What is copyright?

**Copyright gives the creators of a wide range of material, such as literature, art, music, sound recordings, films and broadcasts, economic rights enabling them to control use of their material in a number of ways, such as by making copies, issuing copies to the public, performing in public, broadcasting and use on-line. It also gives moral rights to be identified as the creator of certain kinds of material, and to object to distortion or mutilation of it. (Material protected by copyright is termed a "work".)**

**However, copyright does not protect ideas, or such things as names or titles.**

**The purpose of copyright is to allow creators to gain economic rewards for their efforts and so encourage future creativity and the development of new material which benefits us all. Copyright material is usually the result of creative skill and/or significant labour and/or investment, and without protection, it would often be very easy for others to exploit material without paying the creator.**

**Most uses of copyright material therefore require permission from the copyright owner. However there are exceptions to copyright, so that some minor uses may not infringe copyright. Copyright protection is automatic as soon as there is a record in any form of the material that has been created, and there is no official registration or form or fee. But creators can take certain steps to help prove that material is theirs.**

## What is protected by copyright?

Copyright gives rights to the creators of the following kinds of material or "works":

original literary works - for example, novels, newspaper articles, lyrics for songs, and instruction manuals. Computer programs are also a form of literary work protected by copyright, as are some types of databases

original dramatic works, including works of dance or mime

original musical works

original artistic works - for example, paintings, drawings, engravings, sculptures, photographs, diagrams, maps, works of architecture and works of artistic craftsmanship

published editions of literary, dramatic or musical works.

Protection in this case is of the typographical arrangement of

the edition



<http://www.intellectual-property.gov.uk/index.htm>

**sound recordings, in any form (e.g. tape or compact disc) - they can be recordings of other copyright works, such as music or literature, or other sounds**

**films, including videos and digital versatile discs (DVDs)**

**broadcasts, which may be transmitted by cable or wireless means and including satellite broadcasts, but excluding most transmissions on the internet**

**Copyright does not protect ideas, names or titles, or functional or industrial articles.**

Note: Scientific articles are also protected by copyright. Not the scientific content itself, but the the work (of art?!) as it was written. When you publish in a Journal, you will be asked to relinquish your rights in favour of the publisher of the Journal. With the result, e.g., that if you want to use one of your figures in another article published by another company, you will need to ask permission to do so, even though they were your own figures!

**Are there any exceptions to copyright?**

**Yes, there are a number of exceptions to copyright that allow limited use of copyright works without the permission of the copyright owner. For example, limited use of works may be possible for non-commercial research and private study, criticism or review, reporting current events, judicial proceedings, teaching in schools and other educational establishments, not-for-profit playing of sound recordings and to help visually impaired people.**

**But if you are copying large amounts of material and/or making multiple copies then you may still need permission. Also, particularly where a copyright exception covers **publication of excerpts from a copyright work, it is generally necessary to include an acknowledgement.** Sometimes more than one exception may apply to the use you are thinking of.**

**Is material on the Internet protected by copyright?**

**Under UK law** copyright material sent over the Internet or stored on web servers will generally be protected in the same way as material in other media. Anyone wishing to put copyright material on the Internet, or distribute or download material that others have placed on the Internet, should ensure that they have the permission of the owners of rights in the material unless copyright exceptions apply.

You should note that the **law may be different in other countries** so copyright material may have been put on the internet in other countries without infringing copyright there, but it could still be illegal to use, including download that material without permission, in the UK.

<http://www.intellectual-property.gov.uk/index.htm>

**How can I protect my web site?**

**Copyright will automatically protect any original literary, artistic or musical works placed on a web site.**

**It is a good idea to mark each page of a web site with the copyright symbol ©, your name, and date, so it can be seen by anyone linking to any page of your site.**



**The world's first technical invention patent was awarded in 1421 by the city of Florence to Filippo Brunelleschi, the architect of the Florence cathedral. He refused to develop the ship he had invented to transport marble on the Arno, unless the state would prevent others from copying his invention (the description of which was intentionally vague, something that present patent law does not allow). Brunelleschi was awarded the exclusive use of his own creation on the waters of Florence for a period of three years following a vote in which 218 black beans were cast in favour of granting this exclusive privilege, and 7 white beans against it.**

**But it was Venice that was the first to establish a patent law, on March 19, 1474, by a large majority vote of the Senate.**

“There are many in this City and its surroundings, attracted by its excellence and greatness, many men of diverse origin, having most subtle minds and apt to imagine and discover ingenious artifices. And if it were provided that **others may not make or take unto themselves** to increase their own honour the works and artifices they may have seen so discovered by such men, such men would use their minds, and would discover and make things which would be of no little utility and advantage to our State. Whoever will **make** in this City any **new** and **ingenious** artifice, not made previously in our State, will be obliged to register it at the office of our providitors of the Commune, as soon as it is reduced to perfection, so that it will be possible to use and apply it. It shall be forbidden to anyone else in our land and place to make any other artifice to the image and similarity of that one without consent and **license of the author** during the term of **ten years.**”

Venice Senate 1474; see also <http://www.patentmatics.com/pub2004/pub3d.htm>

**Unlike copyright, patents are not at all automatic. They need to be applied for in every country where you are seeking patent protection. The application will be examined by the country's patent office, who will in many cases request advice from experts, to decide whether your application meets the three basic requirements for an innovation to be patentable:**

**The invention must be *novel*, i.e. it must never have been made public ( which means that publication makes subsequent patenting impossible, for yourself and for your competitors);**

**it must be *inventive*, i.e. non-obvious for someone skilled in regard to the type of object or process under consideration;**

**it should be capable of being *practically implemented*.**





There is also the "negative" limitation: the invention should not be one in an area excluded from possibility of patent protection. The European Patent Convention specifies a list of what is considered **non-patentable** subject matter:

- a scientific discovery, theory or mathematical model;
- a literary, dramatic, musical or artistic work, or any aesthetic creation;
- a scheme, rule or method for performing a mental act, playing a game or doing business, or **a program for a computer**;
- the presentation of information.

In the U.S., software can be patented, in Europe it cannot. But there is a strong push at present to make European law similar to the U.S. approach. You may wish to consider the arguments for and against and look at <http://www.random.org/swpat/>

**In practice, these "simple" principles are not necessarily easy to apply. For instance, deciding whether an invention is novel requires an exhaustive search not only of patent data bases, but also of the open literature. We all know that it is not so easy to be completely sure to cover all existing literature on a scientific subject!**

**The award of a patent does not prevent a competitor to fight the patent in court, to try and obtain an invalidation of the patent. For lawyers this is just as juicy a game as taking competitors to court claiming that they are infringing on their client's patents.**

**For the time being, Europe is less subject to the torrents of patent suits that plague the U.S., because lawyers are not allowed to remunerate themselves from the gains of a lawsuit they win.**

<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

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**Patent System, Globalization, and Knowledge Economy**

<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

**Although Patent Law is five centuries old, there has always been and there is still little agreement as to how patents serve the public good, or even whether they serve the public at all.**

**Some experts believe that patents are monopoly rights that the government bestows upon applicants to reward them for their inventions.**

**Others believe that patents recognize a natural law property right in inventions.**

**Still others believe that the purpose of the Patent System is to encourage the disclosure of new technical teachings in exchange of Intellectual Property rights.**

The most relevant definition of what patents rights are is currently given by the text of the Agreement on Trade-Related Intellectual Property Rights, as most **national patent laws**, although different among them, conform with it.

A patent confers on its owner the following **exclusive rights**:

(a) where the subject matter of a patent is a product, to **prevent third parties** not having the owner's consent from the acts of: **making, using, offering for sale, selling, or importing** for these purposes that product;

(b) where the subject matter of a patent is a process, to prevent third parties not having the owner's consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.

<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

**Said agreement says that every country that is a WTO member must provide a minimum patent term of 20 years from the date of filing the application for a patent on an invention. The owner of a patent has then the right to assign, or transfer by succession said patent and to conclude licensing contracts.**

**While the Patent System establishes on one hand the assignment of patent rights for new and non-obvious inventions, on the other patent applicants have to **disclose the inventions in a manner sufficiently clear and complete to be carried out by a person skilled in the art.****

**Consequently, the effect of the Patent System is to expand the availability of technical teachings by attracting applicants to apply for patent rights.**

<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

**This provides the basic features of a Patent System, but still leaves us without a purpose. It helps, therefore, to consider strategic directions and organizational missions that the Patent Offices give themselves.**

**As a matter of example, the mission of the **European Patent Office** –the patent granting authority of Europe– is to **support innovation, competitiveness, and economic growth for the benefit of the citizens of Europe.****

**This statement is very meaningful, because it provides the System with a threefold purpose, ultimately directed to the public prosperity.**



**Note:**

**Patent applications are published 18 months after submission of the patent application, as are granted patents. Especially when it concerns an process innovation that a company wants to use in it's own production, the obligation of detailed description required for a patent application may make secrecy a preferred alternative.**

**This choice does carry significant risk, however. If a competitor were to patent the same new process, they could limit the first company in exploiting their own invention!**

<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

**Policy making for advanced countries may require the balancing of effective incentives for companies to undertake research and development, while at the same time allowing the widest use of the new technology and the knowledge associated with it, at the lowest possible price..**

**..For the sake of the public good, articulated and carefully crafted public policies are needed in the field of patents, on the one hand to shelter investments connected to patent rights, and on the other to disseminate critical patented information.**

**Moreover, thoughts need to be given to how to adjust the renewal fees, the cost of obtaining a patent, and the cost of enforcement, according to different conditions.**

## **Could Patents have Sped Penicillin Development?**

**The story of the development of penicillin is often cited as an example of both the value of biotech patents and the benefits of not patenting biotechnology products.**

### **Penicillin's Slow Development**

**In 1928 Alexander Fleming discovered the mould that produces penicillin, the first antibiotic..While the importance of penicillin and Fleming's role in the discovery are common knowledge, it is less commonly remembered that the antibiotic wasn't available in useful quantities until 1941. High attrition rates due to infection during World War II spurred governments to encourage the development of penicillin..**

[http://biotech.about.com/library/weekly/aa\\_penicillinpatent.htm](http://biotech.about.com/library/weekly/aa_penicillinpatent.htm)

## **The Patent Arguments**

**The pro-patent argument is that if Fleming had patented penicillin and granted exclusive rights to a company, then that company would have been sufficiently motivated to work out the difficult penicillin production methods.**

**Alternatively, some argue that by not patenting penicillin, Fleming enabled the massive government and industrial effort that eventually did out the production process.**

<http://www.random.org/swpat/>

**Currently, it is not possible to patent software in Europe. The European Commission is proposing to change European patent law to harmonise better with US patent law. While this may seem sensible at a first glance, the American approach has been severely criticised for impeding innovation. Patents are often said to protect the little inventor with a novel idea against being bullied by big business. However, in the US, software patents are increasingly being used by big business to bully little companies with novel ideas. This is bad for competition.**

<http://www.random.org/swpat/>

In addition, software patents are being granted to many **ideas** that are of questionable novelty. A recent example is Microsoft's patent on double click, which was filed in July 2002 and granted in April 2004. The existence of such a patent, means that if you're **developing** software that uses double click, Microsoft could ask you for royalties or demand that you remove that feature from your application. Of course you have the right to dispute the patent in court, but even if you stand a good chance in court (which I think would be the case of the double click patent), a suit will cost you several million dollars. Microsoft can certainly afford this, but can you? Small developers are more likely to end up paying the royalties or removing the features from their software than spending their time overturning obviously meaningless patents.

Note: You cannot patent an **idea**; patents also give you the right to forbid **use**!

[http://www.theregister.co.uk/2004/05/11/eu\\_software\\_patent\\_law/](http://www.theregister.co.uk/2004/05/11/eu_software_patent_law/)

**European Council snubs software patent vote**

**By Lucy Sherriff (lucy.sherriff@theregister.co.uk)**

**Published Tuesday 11th May 2004 09:10 GMT**

**The EU software patents directive is back, with all of the parliamentary amendments stripped out, provoking speculation that Europe will soon find itself in a US-style patenting arms race.**

**The document which emerged after months of deliberation behind closed doors has drawn harsh criticism from lobby groups who see software patents as threats to innovation and to ability of smaller companies to compete against the bigger players.**

[http://www.theregister.co.uk/2004/05/11/eu\\_software\\_patent\\_law/](http://www.theregister.co.uk/2004/05/11/eu_software_patent_law/)

**The version passed by the European Parliament in September last year limited the scope of what could be patented to software that supported new physical processes, such as steel-making, or a new anti-lock braking system. However, the draft now allows for direct software patentability of computer programs, data structures and process descriptions. These are areas the MEPs had voted off the agenda, and which activists fear will pave the way for the dreaded business-method patents that have plagued America.**



<http://www.cespri.it/papers/WP136PantaleoGiannotti.pdf>

**Traditionally, the economic value of individual patents has been derived from their ability to protect and shelter investments in new products and new processes.**

**Today, with worldwide competition becoming more and more lively, and with the emergence of the Knowledge Economy, some believe that patents are becoming more valuable as components of patent portfolios assembled as bargaining tools in negotiations of various sorts, for example in cross-licensing.**

**Thus patents have become an increasingly important element of competitiveness and, as a result, companies have stepped up their rate of patenting in order to maintain a competitive position.**

# Batteries International

## Birth of a new giant?

January 2003



Robert Rouget

The history of technology is littered with "might have beens". Ideas that came too early or too late or "were not invented here".

Frank Whittle's jet engine came pretty close to being missed by the UK's aero engine industry. Liquid crystal principles were discovered in the UK, but fully exploited in Japan. In fact, there's an appalling catalogue of missed opportunities in Britain, but that's another story for another publication.

The missed opportunity I want to share with my readers comes just across the Channel in France.

**"..It's a dull day in November and I'm sitting in the offices of the Societe de Conseil et de Prospective Scientifique (SCPS) with Robert Rouget, an individual who has "popped up" at recent battery meetings and who I feel has an interesting story to tell the battery industry, if only it would listen and act.**

**In my mind there is little doubt that the work of this company in the field of metal foams could have made Europeans, and not Japanese, the master of small cell rechargeable systems in both nickel-cadmium and nickel metal hydride technologies. Today, Europe is left with just one indigenous advanced battery company, while everything else is either US-owned or disengaged from the process of new technology development."**

**"..SCPS is a research and development company. In this day and age there are not too many of those. We all need to earn a living. One can do contract R&D for other businesses, governments and the like, but to pursue one's own ideas and thoughts takes independent finance or other people's money. And there is a problem with other peoples' money, in that sooner or later, they want to sell their stakes and get rich. And for the benefit of their wealth and your ideas and know how, they'll take the lion's share....Having constructed electrodes, one must construct cells, and from cells, batteries. And then must come the endless and tedious discharge testing, which is the bane of the battery industry, because there is no other means of evaluating the success of one's materials. A whole variety of hand-built cells and batteries using these electrodes are being evaluated. It's no surprise to learn that SCPS has built a 36-volt battery block and is evaluating it using the EUCAR standard test cycle."**



## **What have we learned ?**

**Private enterprise = serving customers better than do competitors**

**Customers always want more, better, faster, cheaper**

**Competitors are everywhere, getting better, faster, cheaper**

**Private enterprise, therefore = an every day fight to beat competitors**

**Innovation is essential if you want to have a chance of winning**

**It's exciting**

**It's fun (not always, but often)**



**It's all about people**

## Le 10 qualità dell'aspirante top-executive

- **Mobilità:** disponibilità a cambiare città ogni 3 o 4 anni.
- **Flessibilità:** capacità di ricoprire più incarichi in team.
- **Disponibilità a sacrifici personali:** lavoro non programmabile e cambi di sede pesano sulla famiglia.
- **Consapevolezza del "non ritorno":** il manager globetrotter talvolta non torna più in Italia.
- **Padronanza delle lingue straniere:** non solo l'inglese.
- **Approccio non domestico ai mercati:** capacità di coniugare esigenze locali e strategie globali.
- **Visione globale:** capacità di vedere sempre il business nel suo insieme su più mercati.
- **Competenze trasversali:** crescita olistica, con know-how commerciale, tecnico, amministrativo, di comunicazione.
- **Carriera a zig-zag:** accettazione di diverse posizioni, funzioni, settori e Paesi.
- **Cultura internazionale:** assorbimento della cultura del Paese che ospita il quartier generale.



**You can do it !**

**Thanks for your interest !**