

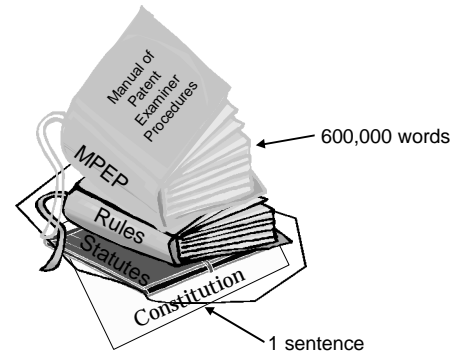
## Intellectual Property (IP) Protection



- Patents
- Copyrights
- Trademark
- Trade Secrets
- Unfair Competition

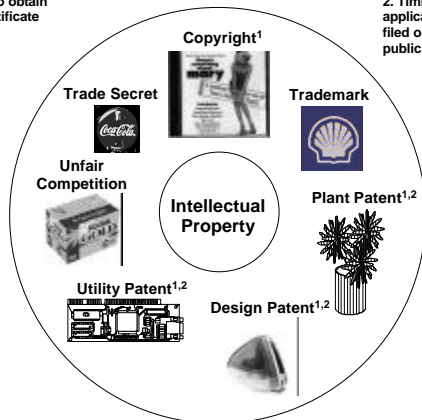
These are three ways to protect your IP rights.  
If you are involved in a hi-tech business venture, you will undoubtedly be creating value in intangible intellectual information - DO NOT neglect it!

## Hierarchy of IP Laws



1. Need to obtain gov't certificate

2. Timing crucial; application must be filed one year after public disclosure



## How Might IP Touch My Career?

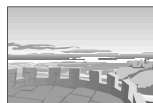


- Acquiring patents for your invention
- You may dictate company policy on IP - which inventions are worth patenting
- Assess IP portfolio of potential acquisition target
- Need to respond to a patent infringement lawsuit
- May license or sell your patent to another party
- You will inevitably create copyrights for your written works, software
- Working with customers/vendors (non-disclosure agreement)
- Keeping trade secrets of your employer
- Keeping secrets of others

There are many ways the IP will influence your career.

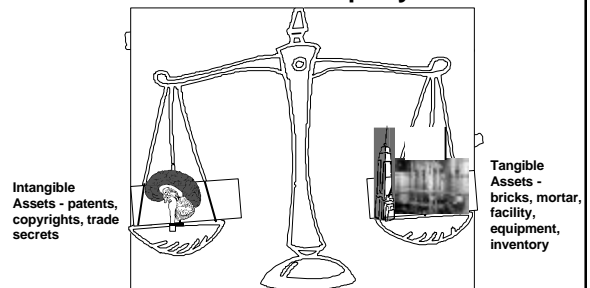
## Basic Definitions

**Property** - that which a person owns; right of possession, enjoyment or disposal of anything, especially something tangible (Nesters, 1989)



**Intellectual Property** - property of the mind, those rights which result from the physical manifestation of original thought, either naturally or in compliance with statute Weil, American copyright law (Chicago, Callaghan, 1917)

## Intellectual Property



Intellectual property, especially in high tech companies, often constitutes the most important assets, surpassing value of bricks, mortar, machinery and inventory

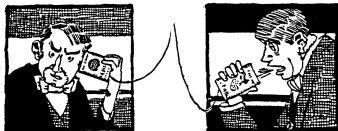
# PATENT

## What is a Patent?



- A right granted by a government to a person or legal entity (partnership or corporation)
- A right to **exclude** others from making, using, importing or selling the invention "claimed" in the patent for a fixed time
- A disclosure of an invention to the public, in return for the exclusive right to the invention
- Monopoly - possibly but not necessarily. For example, if implementing your invention claimed in your patent you infringe someone else's patent, then you would not have an unfettered right to implement your own invention.
- a business asset - patent specified in Article I of the US constitution and its purpose is to promote the progress of science and useful arts. Thomas Jefferson believed that society is best served when creative minds are provided incentive to invent, provided the incentive does not stifle the creative efforts of others

## Patents Center Around Invention



An **invention** is any new article, machine, composition, process or new use developed by a human.

Patents are granted for new and useful processes, machines, manufactured articles, etc. - useful implied utility, that the invention works, not necessarily commercially useful.

## Patents



*Who can apply for a patent?*

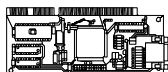
Anyone, regardless of age, nationality, mental competency, incarceration, or any other characteristic, as long as he/she is the true inventor of the invention (dead and insane persons may apply through their personal representative.)

*Can I sell a patent?*



Since a patent is a form of personal property, it can be sold outright, just like any other product, or its owner can give permission to use the invention (a license) in return for royalty payments.

## Three Categories of Patents



Utility patents apply to new and useful machines, manufactured goods, processes, and compositions of matter

Design patents are for new, original, and ornamental designs for articles of manufacture



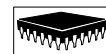
Plant patents cover invention and discovery and asexual reproductions of a distinct and new variety of a plant

## Utility Patents

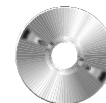
Inventions that function in a unique manner to produce a utilitarian result

Examples:

electronic circuits



integrated circuits



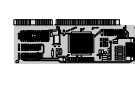
new drugs

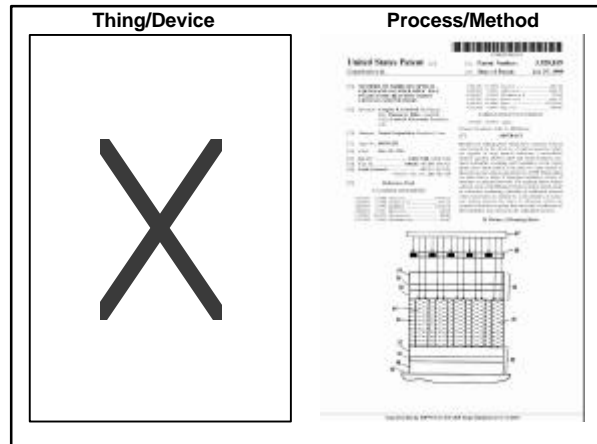
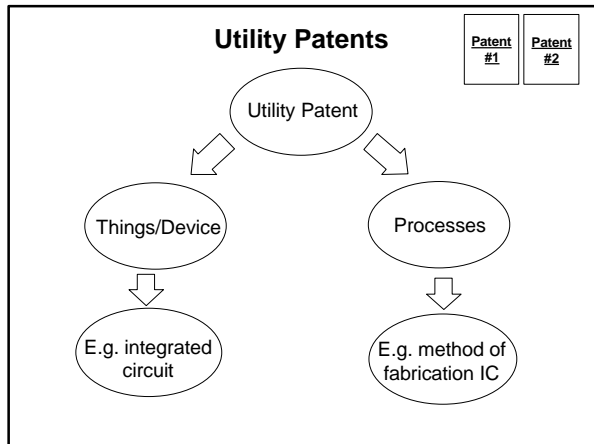
software

displays



manufacturing processes





### Design Patent

Covers the unique, ornamental, or visible shape or design of a non-natural object. Usefulness of shape must be purely ornamental or aesthetic

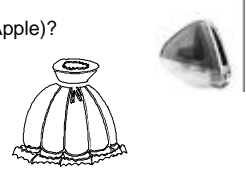
→ If it is functional, then a utility patent is proper.

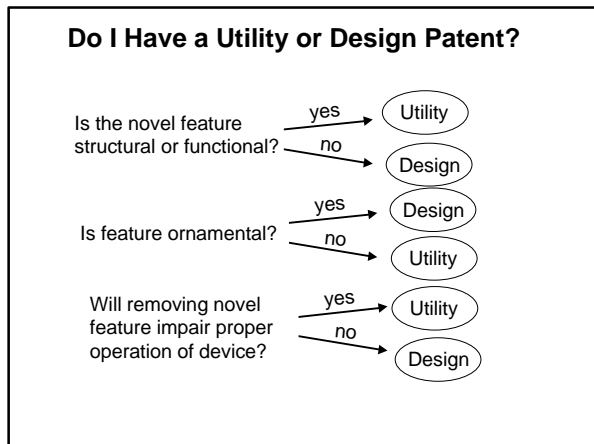
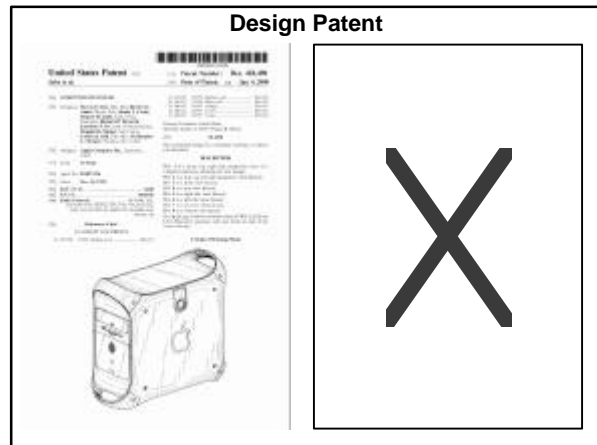
Computer package (Apple)?

Lamp shade?

Calendar


Shoe phone






### Example

1. A jet plane is manufactured with a constricted waist to reduce turbulence at supersonic speeds.
 

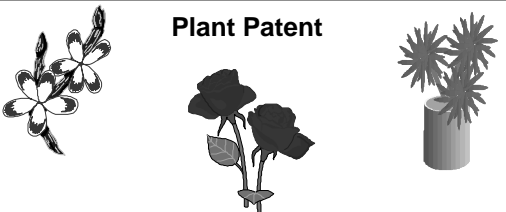


UTILITY
2. A CD looking wall clock for computer geeks.
 



DESIGN


## Plant Patent



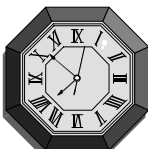
**A plant patent covers asexually reproducible plants (grafts and cuttings) such as flowers.**

## Plant Patent

X



## How Long do Patent Rights Last?



Utility & plant patents, under relatively new legislation, will expire 20 years from application date of filing.

Design patents will expire 14 years from date of issue.

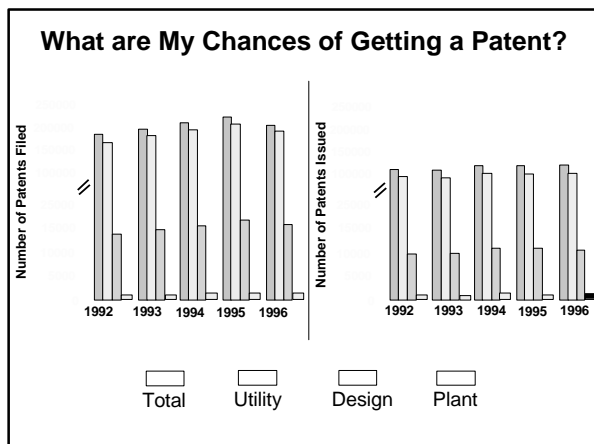
Certain products whose marketing has been delayed (drugs, food additives) can be extended beyond the statutory period.

## It Takes Time to Get a Patent

Approximate Timeline

```

    graph TD
      A[Patent Application filed in the U.S.P.T.O.] -- 2 months --> B[Filing receipt sent to applicant]
      B -- 6 - 12 months --> C[First office Action sent to applicant]
      C -- 3 - 6 months --> D[Applicant responds to office action]
      D -- 4 - 6 months --> E{ }
      E -- or --> F[Second Office Action]
      E -- or --> G[Notice of allowance]
      F -- or --> H[File one more amendment]
      F -- or --> I[File an appeal]
      F -- or --> J[Re-file the application]
      F -- or --> K[Abandon]
      H --> L[Review these options with your practitioner]
      I --> L
      J --> L
      K --> L
      G -- 3 months --> M[Applicant pays issue fee]
      M -- 6 months --> N[Patent issues]
  
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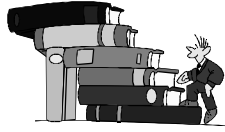
## Can I Lose My Patent? YES

- maintenance fees aren't paid
- if it can be proven that
  - Fails to adequately
  - Improperly describes invention
  - Contains claims that are legally inadequate
- reference(s) are uncovered that prove invention is not new
- patent owner engages in illegal misconduct (e.g. antitrust violations connected with the patent)
- patent applicant committed fraud at the PTO - i.e. failing to disclose prior art references that he/she was aware of.

### A Patent - Offensive Weapon or Prior Art Reference



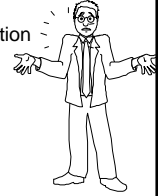
- Stop infringers and/or obtain damages from them
- Offensive rights last 20 years from filing date
- Power in claims



- Text and figures constitute prior art - like a book or journal. Prevent others from getting a patent on what is disclosed
- Effective from filing date, prior art forever
- Claims irrelevant, just simply a reference.

### Common Patent Misconception

- A patent gives owner right to practice an invention - if you invent something, you can practice (build, use, sell) with or without a patent, provided it is not covered by another patent (within its 20 year enforceable term)
- Once I get a patent, I will be rich - BS, it is more or less like a hunting license. You now can rightfully go after infringers. If never commercialized (widespread commercial use) a patent is worthless. Patent portfolios of companies can strengthen worth of a generally single patent.
- A patented product is superior - a patent only means sufficiently different NOT superior



### Common Patent Misconception con't

If you make or sell a product on which you rely on your patent, your patent will protect you against the infringement claims of others.

- Remember a patent is for offense only, and has no value in defending against infringement charges from other patents, but your patent may have value in a countersuit if the other patent owner infringes your patent

If a product is stamped patented no one else can make a product with similar function

- Most patents cover a specific element or version of a product e.g. a materials formulation provides a given function, but there may be thousands of other materials composites that could be superior or inferior, that don't infringe on your patent.

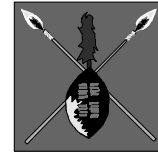


### A Patent Law Provides Offensive Rights NOT Protection



Offensive Rights

NOT



Protection

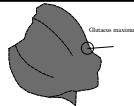
The patent does not provide any protection in its own right, it only gives the owner offensive rights.

If you will, the right to sue or threaten to sue anyone who trespasses (infringes) on that right.

**“Offensive Rights” - Bummer**  
IP law provides offensive rights to inventors. This can be troublesome for the home inventor or small start-up company.

Litigating a patent suit is costly and timely, independent inventors and start-ups may not have the cash available to defend themselves against a corporate giant.

Unfortunately, no analog to criminal justice system where a court appointed attorney is assigned to you if you lack funds to represent yourself.



### What Can't be Patented?

$$E = mc^2$$

- Any that can be performed mentally
- Abstract ideas that cannot be reduced to hardware
- Naturally occurring articles / events
- Business forms / printed matter
- Equations / Laws of Nature



$$PV = nRT$$

$$p = mv$$

$$F = ma$$

## What Can be Patented - Requirements

1. Invented by claimed inventors
2. Test

- New and Novel  
- Useful  
- Non-obvious

} FUZZY  
DEFINITION

3. Prior Art

No document exists (patents, journal article, newspaper, magazines) that disclose claimed invention

## These Requirements Can Lead to Many Seemingly Silly Inventions

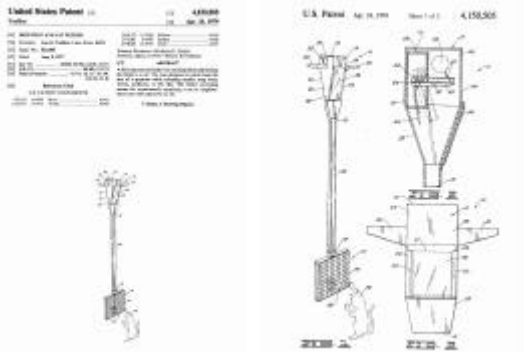


Look up the following for fun:

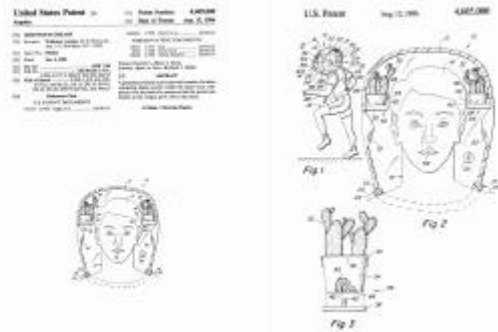
<http://patent.womplex.ibm.com/galleryarch>

<http://colitz.com/site/wacky.htm>

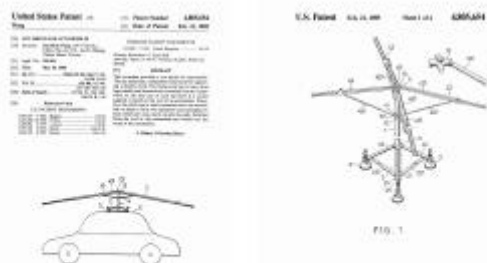
## Bird Trap and Cat Feeder



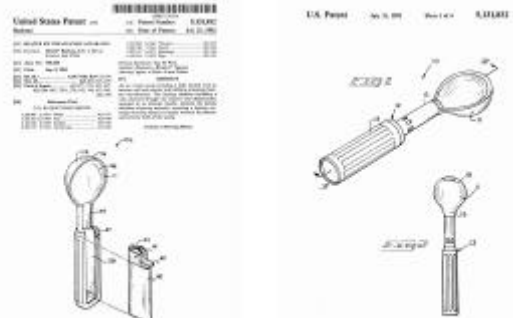
## Greenhouse Helmet



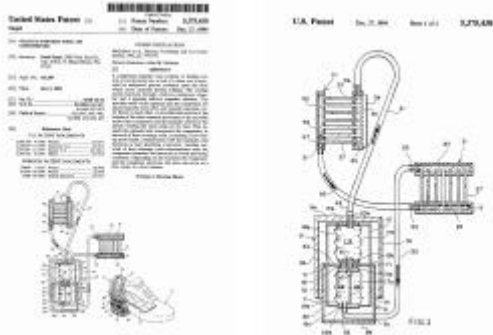
## Sun Shield for Automobiles



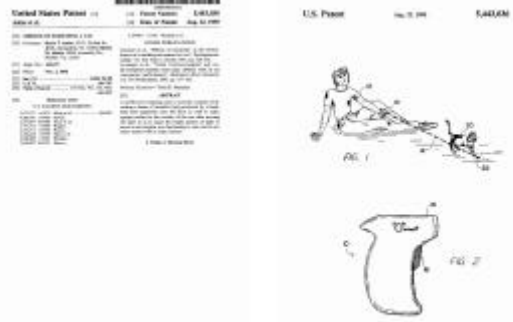
## Heated Ice Cream Scoop Apparatus



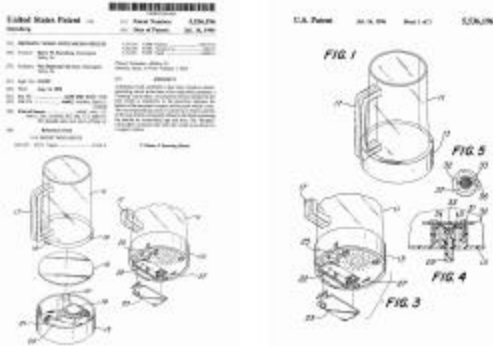
### Gravity Powered Shoe Air Conditioner



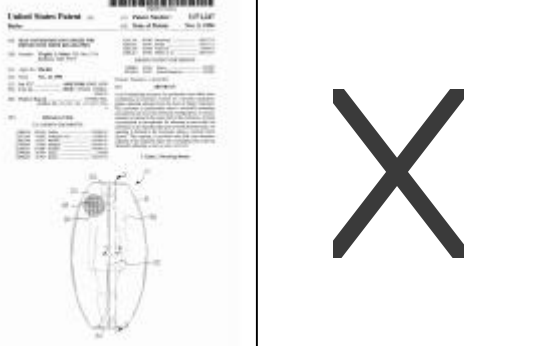
### Method of Exercising a Cat



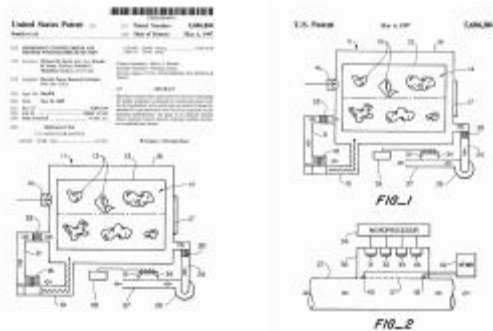
### Drinking Vessel with Sound Effects



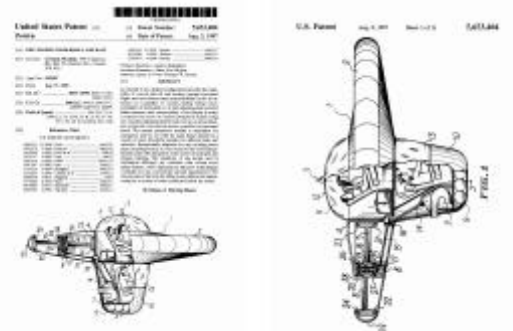
### Self Containing Enclosure For Protection From Killer Bees



### Microwave Clothes Dryer and Method With Hazard Detection



### Disc-Shaped Submersible Aircraft



# Jet Powered Surfboard

United States Patent 3,111,111  
Issued March 26, 1964  
Filed July 1, 1964  
Inventor: [Name]  
Assignee: [Name]



U.S. Patent 3,111,111 Sheet 1 of 2 Date 3/26/64

