

About Intellectual Property

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Why Have a Patent?

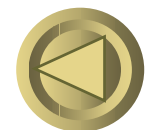
- *A patent gives an inventor the right to exclude all others from making, using, importing, selling or offering to sell the invention for up to 20 years without the inventor's permission.*
- *Patent protection gives the inventor the opportunity to produce and market the invention himself, or license others to do so, and to make a profit.*



The Two Entities of a Patent

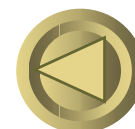
- **A useful, non-obvious novel idea that solves a problem, and...**
- **A method of practically implementing that idea - which is the “invention”**

An idea without a method to implement is just that - an idea



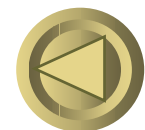
The United States Patent and Trademark Office

- **The USPTO** is located in Arlington, Virginia.
- The USPTO has **6,500 employees** to do the job that the first patent board—Thomas Jefferson, Henry Knox, and Edmond Randolph—did a little over 200 years ago.
 - Thomas Jefferson was the first US Patent Examiner.
- The USPTO is totally fee funded -- no taxpayer money supports it.
- During the Civil War, the Confederacy established its own Patent Office which issued 266 patents, a third of which concerned implements of war.
- 1880 - 1890, one of the greatest decades of invention of all time: The trolley car, the incandescent light, the automobile, the cash register, the dynamo, the pneumatic tire, smokeless powder, transparent film, electrical welding, the cyanide process, the steam turbine, the aluminum manufacturing process, and the electric furnace are all invented or introduced.



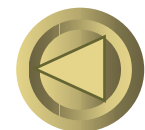
Patent Trivia...

- The first US patent was granted in 1790 to Samuel Hopkins of Philadelphia for a cleaning formula used in soapmaking.
- Only US president to have a patent is Abraham Lincoln
- A patent examiner in 1899 said the Patent Office should be closed down
 - “Everything that can be invented has been invented...”
- Albert Einstein got his start as a patent examiner (Germany).
- During the War of 1812, the British burned Washington. The Patent Office was spared because Dr. William Thornton, Superintendent of Patents, pleaded with the British Commander not to "burn what would be useful to mankind."



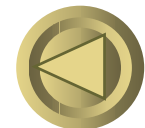
Types of Intellectual Property (part 1)

- **Design Patents (14 years)** guard the unauthorized use *of new, original, and ornamental designs for articles of manufacture*. The look of an athletic shoe, a bicycle helmet, and the Star Wars characters are all protected by *design patents*.
- **Utility Patents (20 years)** protect *useful processes, machines, articles of manufacture, and compositions of matter*. Examples: fiber optics, computer hardware, medications.
- **Plant Patents (14 years?)** are the way we protect *invented or discovered, asexually reproduced plant varieties*. Hybrid tea roses, Silver Queen corn, Better Boy tomatoes are all types of plant patents.



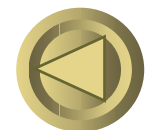
Types of Intellectual Property (part 2)

- **Trademarks** protect *words, names, symbols, sounds, or colors that distinguish goods and services*. Trademarks, unlike patents, *can be renewed forever* as long as they are being used in business. The roar of the MGM lion, the pink of the insulation made by Owens-Corning (who uses the Pink Panther in advertising by permission from its owner!), and the shape of a Coca-Cola bottle are familiar trademarks.
- **Copyrights** protect *works of authorship, such as writings, music, and works of art* that have been tangibly expressed. The *Library of Congress* registers copyrights which last for the *life of the author plus 70 years*. Gone With The Wind (the book and film), Back Street Boys' recordings, and video games are all works that are copyrighted.
- **Trade Secrets** are *information that companies keep secret* to give them an advantage over their competitors. The formula for Coca-Cola is the most famous trade secret.



What does “Patent Pending” mean?

- **Patent Pending** is a phrase that often appears on manufactured items. It means that someone has applied for a patent on an invention that is contained in the manufactured item. It serves as a warning that a patent may issue that would cover the item and that copiers should be careful because they might **infringe** if the patent issues.
- Once the patent issues, the patent owner will stop using the phrase "patent pending" and start using a phrase such as "covered by U.S. Patent Number XXXXXXXX." Applying the patent pending phrase to an item when no patent application has been made can result in a fine.



My Personal Patents

- Medical Device (assigned to MicroSurgical Technology)

- 6,234,993 Low Profile Phaco Handpiece
- D440,310 Phaco Handpiece
- D438,767 Phaco Tip Wrench

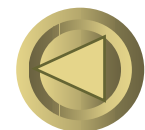
One patent pending for phaco tip chop design.

- Aerospace (Assigned to Honeywell International)

- 6,580,351 Laser Adjusted Set-Point of Bimetallic Thermal Disc
- 6,640,646 Force Measurement of Bimetallic Thermal Disc
- 6,762,668 Laser Adjusted Set-Point of Bimetallic Thermal Disc

Eight more patents pending for thermal disc measuring system.

- Wrote the principle text for two HydraMaster Corporation patents.



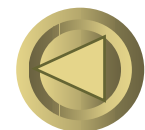
Why Should an Organization Invest in Patents?

- ***Objective is to ...***
 - ***demonstrate innovation to customers***
 - ***differentiation with competitors***
 - ***selling advantages to partners***
 - ***increasing the value of the organization***
 - ***Borrowing advantage***
 - ***Investor advantage***



About Timing...

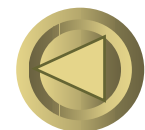
- **Patents must be filed within one year of introduction of the invention to the public... and the clock starts when...**
 - *Printed brochures may start the clock if they show the invention in sufficient detail or describe it in the text*
 - *Offering to sell the product having the invention in it also starts the clock, even if nobody buys it*
 - *Putting the invention into use, say as a leased or rented product, also starts the clock, unless it is "experimental use."*
 - *Careful with that one. "Experimental use" starts falling apart when the product has the invention in its "finished" state.*



Initial Financial Investment

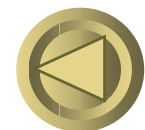
- The USPTO charges a fee based on the size of the company, the number of claims, the type of patent, and other miscellaneous items.
- Attorney fees can range from \$4000 for bare-bones patents, to over \$20,000 for patents prepared by large corporate law firms.

In 1790, the cost to obtain a patent was between \$4 and \$5.



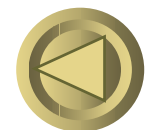
Ongoing Financial Investment

- **The USPTO, while granting patent coverage for 20 years from the date of submission (14 for Design Patent), does require an ongoing fee, per a schedule, to maintain the patent. The fee schedule, which applies to Utility and Design patents, is:**
 - **\$445 after 3-1/2 years**
 - **\$1,025 after 7-1/2 years**
 - **\$1,575 after 11-1/2 years**



The Major Parts to a Patent

- **Abstract**
- **Field of the Invention**
- **Background of the Invention**
- **Summary of the Invention**
- **Brief Description of the Drawings**
- **Detailed Description of the Embodiment**
- **Claims**
- **Drawings**



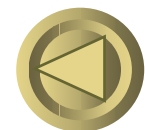
Abstract and Field of Invention

- **Abstract**

- Introductory text (usually 1-2 paragraphs) describing the invention

- **Field of the Invention**

- Where the patent applies, e.g. which industry (this helps the patent examiner when he begins his prior art research)



Background and Summary of Invention

● Background of the Invention

- Describes how the world works relative to what the invention is supposed to fix
 - Anything stated here is “prior art” (public knowledge)
 - thus don’t say more here than needed, because it can limit your patent

● Summary of the Invention

- Specifically what the inventor proposes that is different that what already exists (prior art) and the advantages of the invention



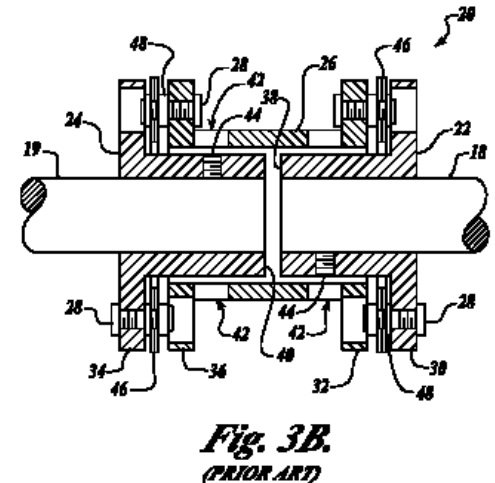
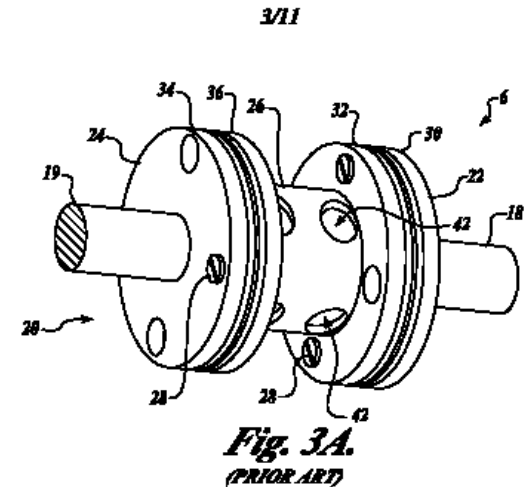
Drawings

- **Brief Description of Drawings**

- Overview of the drawings (Figures) contained at the end of the patent, includes invention drawings and prior art drawings

- **Drawings (Figures)**

- Drawn in "patent format" by drafting specialists
 - patent attorney typically hires this out after he provides initial sketches to drafter



Detailed Description and Claims

- **Detailed Description of the Embodiment**

- Lengthy and very specific text, including references to drawings, of how the invention is implemented (“how it works”). Contains all information later used in the Claims section

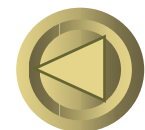
- **Claims**

- Subject to the approval of the patent examiner (some or all can be dismissed). Can have few or many claims. My attorney (bio on last page) writes claims at three levels
 - Very broad - basic invention in all of its possible implementations
 - Industry specific - written to prevent competitors from “designing around” the patent
 - Narrow - claims on the product we are selling (to prevent exact copying)



Legal Forms

- ***Declaration of Power of Attorney in Patent Application***
 - Signed by inventors stating that what is in the patent is indeed their invention, and affirming that their attorney will prosecute and transact all business on behalf of the inventors with the USPTO
- ***Assignment***
 - Notarized document where inventors willingly assign and transfer to company all rights, title, and interest in invention
- ***Statement Claiming Small Entity Status***
 - Statement claiming small business concern (less than 400 employees) - allows USPTO fee to be one-half that of a large business concern.



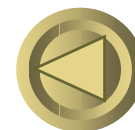
Do's and Don'ts of Intellectual Property (IP)

● Do

- Record (in ink) and date all IP information
- Have the IP (e.g. patent) idea witnessed by qualified person
- Promote an atmosphere of creativity, problem solving, ideas
- Counsel with attorney on all IP strategy
- Attract outside inventors
- Budget \$10,000 per patent application
- Invest in a “patent search” if unclear if invention is unique
 - \$1,500 fee - does not apply to the \$10,000 patent application

● Don't

- Expose the invention to anyone outside of the organization
 - including vendors, distributors, suppliers, friends
- Release anything to the public before patent strategy is considered (1-year clock must be remembered)
- Have any employees on-site at your organization who have not signed a release of intellectual property



Biography of my Patent Attorney

- **Charles J. Rupnick, Esq., Attorney at Law**
 - PO Box 46752, Seattle, WA, 98146
 - Phone (206) 439-7956, Fax (206) 439-3223
 - rupnick@attbi.com
- **Sr. Mfg. Engineer, Sr. Design Engineer, Project Engineer (1981-93)**
 - Sundstrand Aerospace (Now Honeywell Aerospace)
 - Peer/mentor to me and other engineers
- **Bachelor of Science, Mechanical Engineering (BSME)**
 - University of Washington, 1979
- **Juris Doctorate (JD)**
 - Seattle University, 1995
- **Former Large Law Office Attorney, Now in Private Practice**
 - Patent counselor for Honeywell Aerospace
 - Wrote all of my aerospace patents.
 - Wrote all of my industrial equipment company patents.

