

# Protecting Intellectual Property- Patents and Trade Secrets

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Copyright

Patent

Trademark

Trade  
Secret

Intellectual  
Property

A diagram illustrating the components of Intellectual Property. On the left, four colored rectangular boxes are stacked vertically: blue for 'Copyright', red for 'Patent', teal for 'Trademark', and green for 'Trade Secret'. Each box has a black cable with a multi-pin connector extending from its right side. These four cables converge into a single black cable that ends in a larger, multi-pin connector with two prongs at the bottom. This connector is positioned directly above a large, light blue rectangular box labeled 'Intellectual Property'.

# Careers in Patent Law

## What:

- Technical Specialist
- Patent Agent
- Patent Attorney

# Careers in Patent Law (cont'd)

## Where:

- Legal departments of companies
- Law firms
- Technology Transfer Offices:
  - Universities (Ga. Tech: Office of Industry Engagement - [industries.gatech.edu](http://industries.gatech.edu))
  - Companies
  - Government
- U. S. Patent Office (Examiner)

# Number of U.S. Patent Agents and Attorneys

- Patent Agents - 11,275
- Patent Attorneys - 33,572
- Number of all U.S. attorneys (2011) – 1,225,452
- Percentage of patent attorneys – 3%

# No Patent or Trade Secret - Trademark



# Web Sites: Patents, Trademarks, and Copyrights

**[www.uspto.gov](http://www.uspto.gov)**

(Patents and Trademarks)

**[www.copyright.gov](http://www.copyright.gov)**

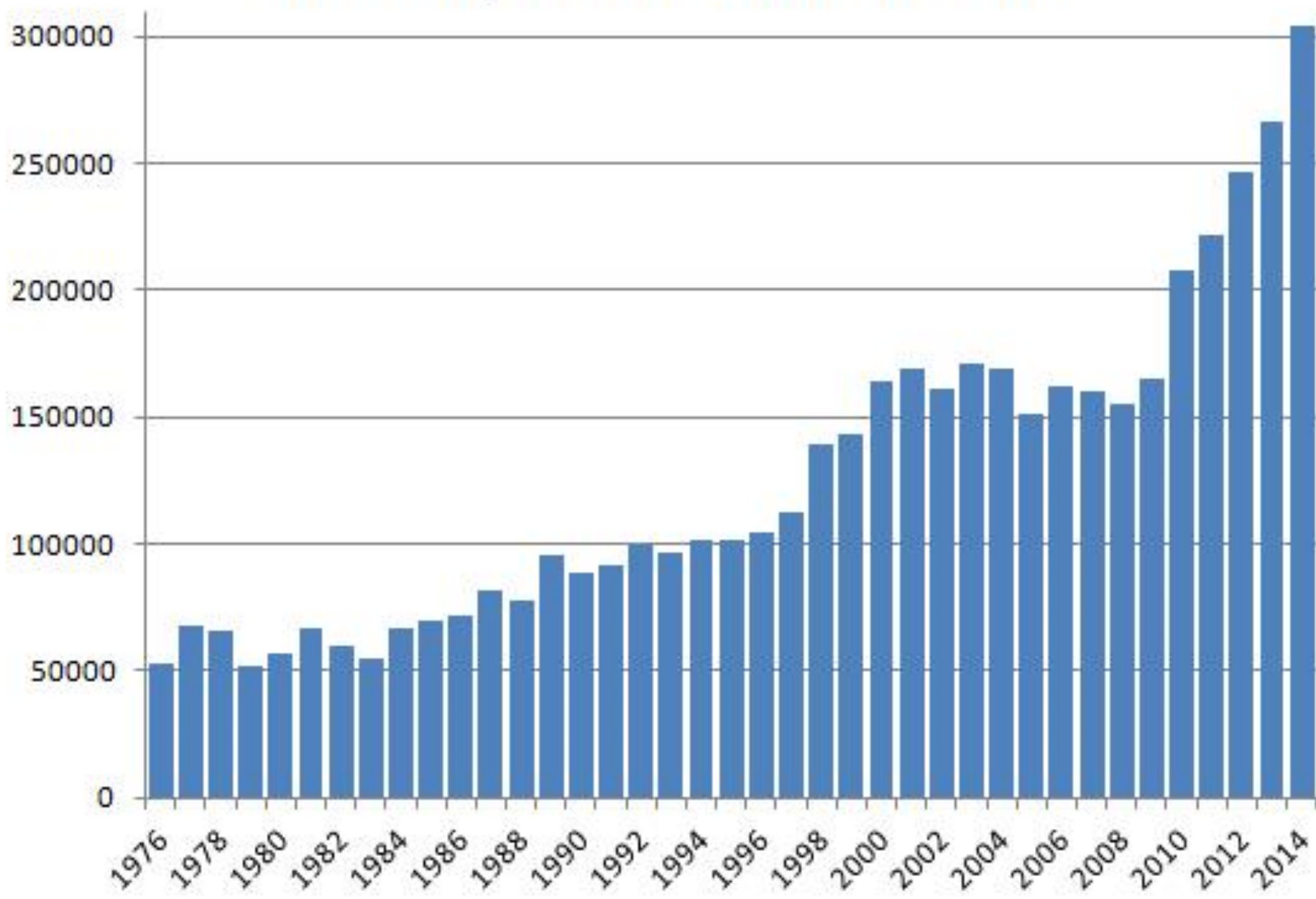
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# Patents – From Then to Now



# US Utility Patent Grants Per Year



# Patents in the U.S.

In the 1970's:



# Patents in the U.S.

Today:



# Why Patent? – Pros

- “Patent Pending” is a good marketing tool.
- Creates asset – looks good in the business plan – investors look to IP portfolio in deciding to invest.
- Ability to use patents strategically: enforce, assign/sell/license - trade to avoid litigation.

# Why Patent? – Pros (cont'd)

- Commercial advantage over competitor (enhanced market share and higher margins to recoup front-end investments until non-infringing substitutes appear).
- Reflects innovation.

# Why Patent? – Cons

- “Patent Pending” – no protection until patent issues.
- Long time to get a patent – average of 3½ years (utility) and 18 months for design.
- Limited life – 20 years after filing (utility); 14 years after filing for design patents.
- Expensive to get and to enforce.

# Why Patent? – Cons (cont'd)

- Patents require **full public disclosure** of invention – sacrifice secrecy - educate competitors.
- Can't get patent for mere idea or concept.
- **No absolute right to practice invention** – limited monopoly - only right to “exclude others.”

# What is “Patent Eligible”?

The U.S. Supreme Court has said that patents cover “anything under the sun that is made by man.”

*Diamond v. Chakrabarty*, 447 U.S. 303 (1980)

(genetically-engineered bacteria that broke down crude oil)



# What is Not “Patent Eligible”?

- Laws of nature  
(always existed, not “invented”).
- Physical phenomena.
- Abstract ideas.

# Patent Territory

- U.S. patent covers only the United States.
- Separate patent necessary in each country – no one patent covers the world.

# When Does An Invention Occur?

Conception

+

“Reduction to Practice” →

Invention

# Joint Inventors – 35 U.S.C. § 116(a)

“Inventors may apply for a patent jointly even though:

(1) they did not physically work together or at the same time,

(2) each did not make the same type or amount of contribution, or

(3) each did not make a contribution to the subject matter of every claim of the patent.”

# First to Invent *v.* First to File

Old law (First to invent)

*v.*

New law (First to file patent application) - *U.S. now like the rest of the world.*

# Types of Patents - Utility

- Utility* –protects how invention is made and works.
- most inventions fall into this category.
  - any “useful, new and unobvious” process/method, machine, article of manufacture or composition of matter.
  - lasts for 20 years from the patent application’s filing date.

# “The Step”



United States Patent [19]

Irwin et al.

[11] Patent Number: 5,158,512

[45] Date of Patent: Oct. 27, 1992

[54] ADJUSTABLE STEPPING STRUCTURE FOR AEROBIC EXERCISES

[75] Inventors: Lyle R. Irwin, Kennesaw; Peter H. Hand, Atlanta; Edward F. Leftwich, Decatur, all of Ga.

[73] Assignee: Sports Step, Inc., Atlanta, Ga.

[21] Appl. No.: 763,864

[22] Filed: Sep. 20, 1991

## Related U.S. Application Data

[63] Continuation of Ser. No. 418,159, Oct. 6, 1989, abandoned.

[51] Int. Cl.<sup>3</sup> ..... A63B 21/12

[52] U.S. Cl. .... 482/52; 482/142

[58] Field of Search ..... 272/113, 70, 144, DIG. 9, 272/74; 248/346, 188.2; 182/222; 108/104; 446/117, 128; 297/439; 482/52, 142

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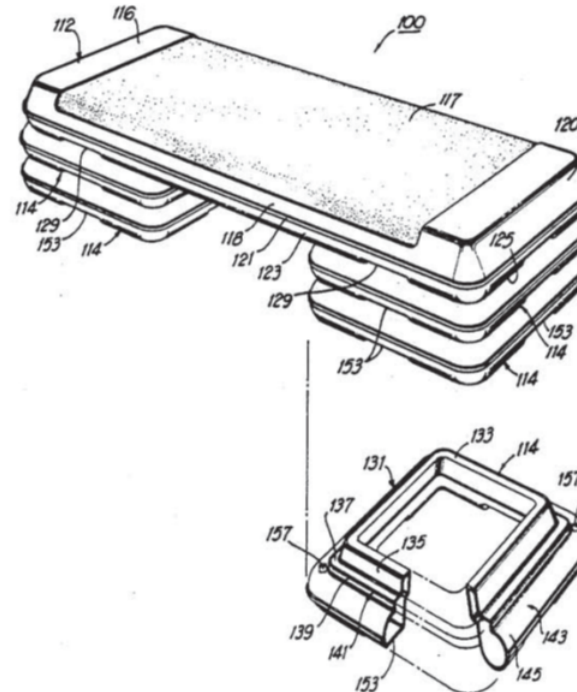
Primary Examiner—Stephen R. Crow

Attorney, Agent, or Firm—Needle & Rosenberg

## ABSTRACT

[57] An adjustable stepping structure for aerobic exercises comprising a platform upon which the participant places his or her feet, the platform being elevated above a support surface by means of one or more support elements which are capable of being detachably stacked upon each other until the platform is maintained at a selected distance above the support surface, depending upon the skill and physical characteristics of the participant.

10 Claims, 3 Drawing Sheets



# Types of Patents - Design

- Protects exterior shape or appearance of an article of manufacture.
- Doesn't protect structural or functional features.
- Lasts 15 years from filing date.
- *Examples: shoe tops and soles, laptop cases, Coke bottle, exterior of the iPhone.*



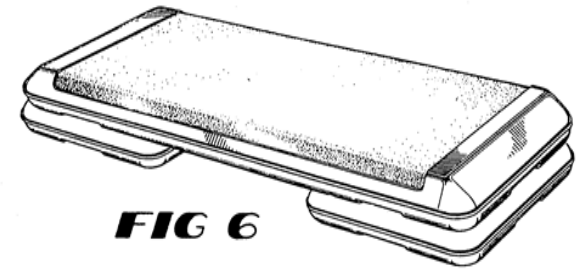
# Design Patent – “The Step”

U.S. Patent

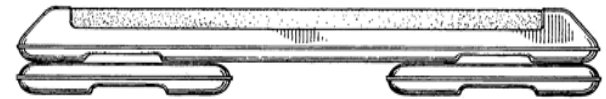
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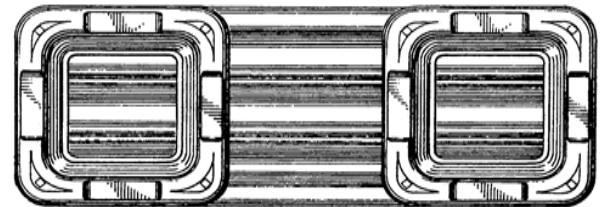
Des. 330,057



**FIG 6**



**FIG 7**



**FIG 8**



**FIG 9**

**Don't Screw Up !!**

**WARNING:**

**The One-Year  
Statutory Bar Rule**

# One Year Rule for Patents

Inventor has **one year** to file a patent application in the U.S. Patent Office from date of first **“public disclosure”** of the invention:

sale, offer for sale, publication, public use, on website, trade show

# The One-Year Rule – Why?

“[I]t is a condition upon an inventor’s right to a patent that he shall not exploit his discovery competitively after it is ready for patenting; he must content himself with either secrecy, or legal monopoly.”

*Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts Co.*,  
153 F.2d 516, 520 (2d Cir. 1946).

# One Year Rule for Patents

Public Use/Offer for Sale/Sale Before U.S.  
Applications Filed = No Foreign Filings



# One Year Rule for Patents

U.S. Application Filed Before Public  
Use/Offer for Sale/Sale = Foreign Filings  
Preserved



# Sale of the Invention v. Sale/License of Patent

- Only the **sale of the invention** creates a potential statutory bar.
- **Assigning** or granting a **license** to a patent, or pending patent application does not amount to a sale.

# Experimental Use Exception

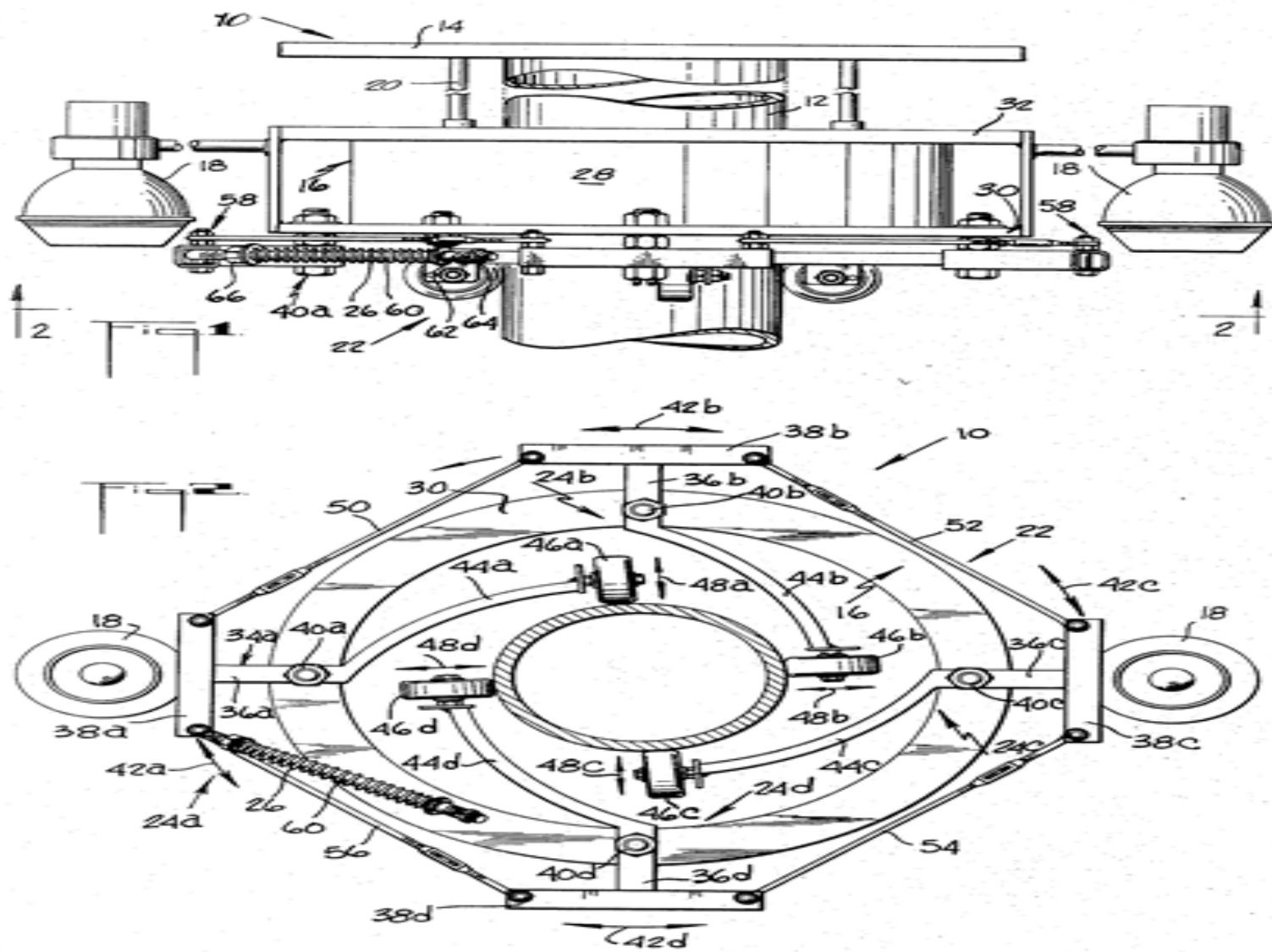
- Based on desire to give an inventor adequate time for testing whether invention truly works for its intended purpose.
- The sale was primarily for experimentation rather than commercial gain.
- Inventor must document that use is for experimental purposes.

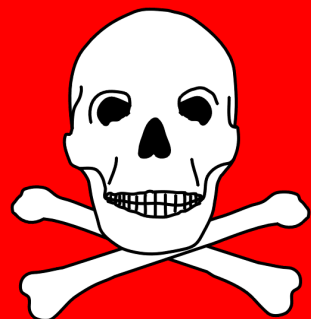


PATENTED NOV 12 1974

SHEET 1 OF 2

3,847,333





# – WARNING –



You may forfeit your right to patent an invention if there is a public disclosure of your invention more than one (1) year prior to filing a patent application.

Therefore, you should not do any of the following without determining whether patent protection should be sought for the technology:



# – Do Not –



- ☠ Display or discuss the invention at a seminar, lecture, workshop, poster presentation or trade show open to the public, or
- ☠ Disclose the invention without a signed Confidentiality (or Non-Disclosure) Agreement, or



# – Do Not –



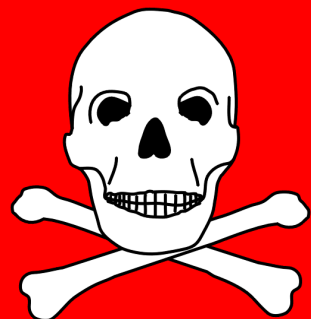
- ❏ Disclose the invention on inventor's or company's web site, or
- ❏ Submit an article to a journal for publication, or
- ❏ Publish a manuscript, letter, note or chapter in format available to the public, or



# – Do Not –



- ❌ Offer for sale or sell the invention,  
or
- ❌ Distribute samples of the product to  
customers or collaborator, or
- ❌ Consumer or market test a new  
product, or



– Do Not –



- ☠ Distribute advertising brochures about the invention, or
- ☠ Demonstrate a prototype to a public group.

**THE GOAL:** to prevent unnecessary loss of patent rights due to premature use, sale or publication of patentable technology.

# Why Document an Invention? – Lab Notebooks

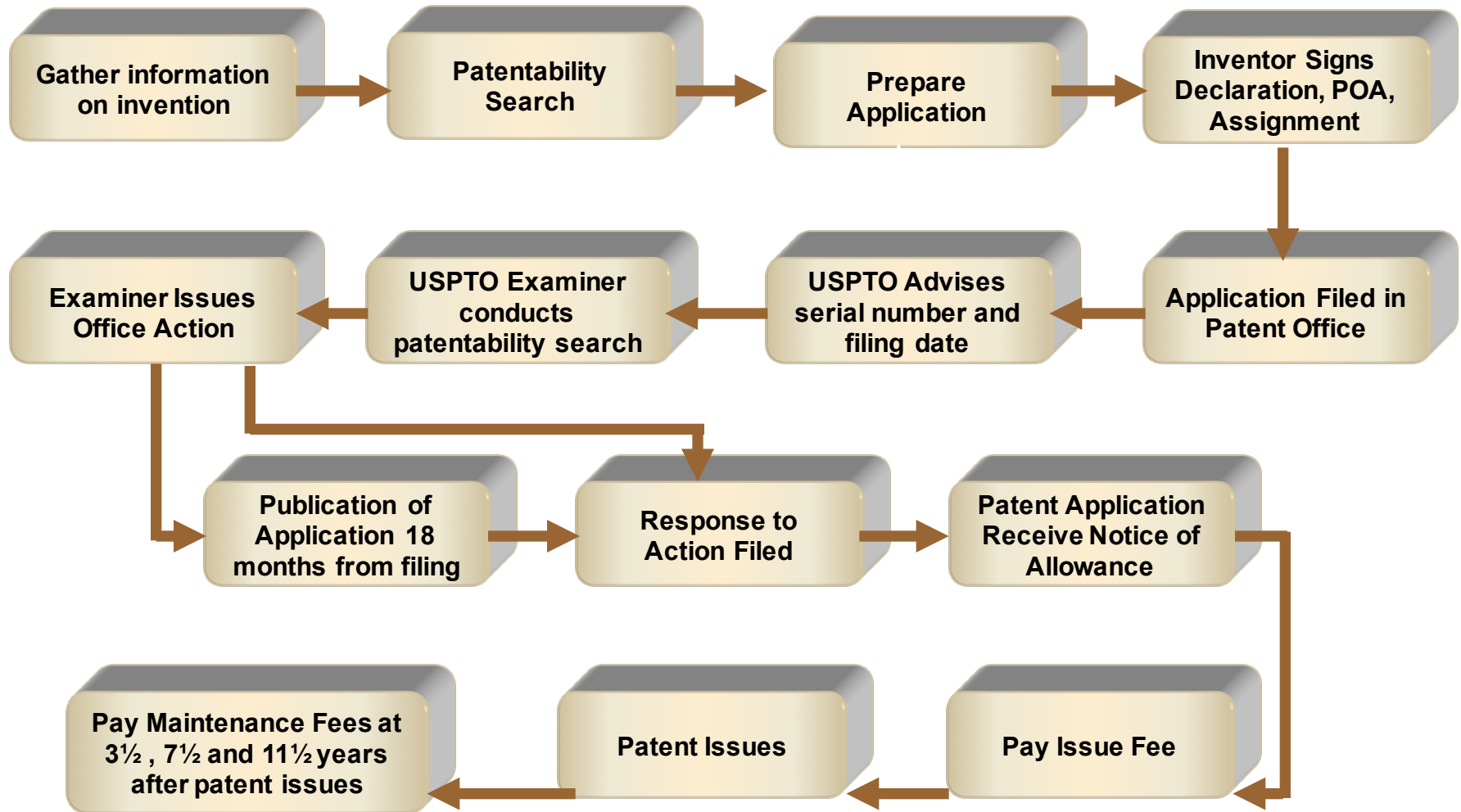
- Establish **prior user's rights** (prove you used the invention commercially in U.S. at least 1 year before 3d party's patent filing date).
- To prove “**derivation**” if 3d party steals the invention.
- **Helps patent attorney** in preparing patent application.

# Why Document an Invention? (cont'd)

Identifies correct inventor(s) – prevents **misjoinder/nonjoinder** of inventors on patent applications and **establishes inventorship** under Joint development Agreements and **improvements** to licensed technology.



# Flowchart for U.S. Utility Patents





# Examples of Trade Secrets

- Coca-Cola formula
- WD-40 formula
- BING search algorithm



# Definition of a Trade Secret

- **Secret** - must not be generally known by or readily ascertainable to competitors.
- It confers a **competitive advantage** on its owner.
- It is subject to reasonable efforts to **maintain** its **secrecy**.

# What Can Be a Trade Secret?

Unlike a patent, a trade secret can include "business information" such as:

- financial data and plans,
- marketing/strategic/business/investment/R&D plans and strategies,
- technical reports,
- internal procedures for improved efficiencies,
- actual or potential customers,

# What Can Be a Trade Secret?

- personnel/wage and salary information,
- product specifications,
- customer preferences, special sources of supply, negotiated prices, quantity requirements, sales figures and
- failed experiments or designs that did not work.

# What Can Be a Trade Secret?

Additionally, a trade secret can be a:

- device/machine,
- processes,
- computer software, databases,
- lab notebooks,
- unique combinations of **generally known** concepts,  
and
- a catch-all category of **"know-how"** - just about any kind of secret information that relates to a business.

# Trade Secrets are Hard to Define

- “An exact definition of a trade secret is not possible.”  
*Restatement of Torts*, § 757, Comment b (1939).
- No general and invariable rule can be laid down to govern the determination of whether a device, process, or other compilation of information should be classified as a trade secret.



# Reverse Engineering

“If the information can be readily duplicated without involving considerable time, effort or expense, then it is not secret.”

*Hamer Holding Group, Inc. v. Elmore*, 202 Ill.App.3d 994, 1011-12 (1990).

# Term of a Trade Secret

A trade secret remains a trade secret as long as it remains a secret.

# “Reasonable Efforts to Maintain Secrecy”

- The **most critical factor** in gaining trade secret protection is the owner’s efforts at maintaining secrecy.
- “In defending against a trade secret claim, defendants will search and pounce upon any shortcoming in the plaintiff’s efforts to keep its information secret.”

# “Reasonable Efforts to Maintain Secrecy”

- Employment agreements.
- **Marking documents** and drawings  
“Confidential.”
- Posting and circulating written policy.
- **Limit** types of employees who have access.

# “Reasonable Efforts to Maintain Secrecy”

- Locking up confidential information.
- **Visitor sign-in** and executing confidentiality agreements/NDA's (beware: **inventor sending idea to company**).
- **Exit interviews** –return of proprietary information and reminder of non-disclosure obligation.

# Trade Secret Protection – Pros

- **Involves no registration costs** - The only cost of protecting a trade secret is the cost of keeping it secret.
- **Is immediately effective.**
- **Is not limited in time** – lasts forever vs. 20 years from filing for utility patent.
- **Can be licensed for any duration** – patent can't be licensed for more than its life.
- Gives businesses a flexible, lower-cost way to make a return on investments in developing valuable information.

# Trade Secret Protection – Pros (cont'd)

- Less expensive to maintain protection than patents.
- Less expensive to enforce than patents.
- Protects against persons who improperly acquire the trade secret – but does not protect against independent discovery or reverse engineering.

# Trade Secret Protection – Pros (cont'd)

- A **small improvement** can qualify as a trade secret, even if not patentable.
- But if invention can be easily **reverse engineered**, then patent protection may be preferable – can it be kept secret?



# Trade Secret Protection – Cons

- Trade secret owner has **no remedies** against a person who acquires trade secret through legal means.
- Difficult to police for theft of trade secret, particularly processes.
- Without a patent, inventors would invest more resources in maintaining trade secret.
- **“Innocent use defense”** available in theft of trade secret cases.

# Trade Secret Protection – Cons (cont'd)

- A patent may facilitate efficiency in manufacturing – able to more freely license with patent.
- Unless you are a “prior user,” subsequent patent owner can sue you for infringement.
- **Risk of losing** trade secret rights higher than losing patent rights.

# Patents vs. Trade Secrets

Trade secret protection may be preferable where:

- “Shelf life” of invention is short.
- Number of competitors is small.
- Patent protection is hard to get.
- Product is complex.

# Patents vs. Trade Secrets

Patent protection preferred where  
technology is pioneering.

