

# 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'. From the right side of each box, a black cable with a multi-pin connector extends outwards. These four cables converge into a single vertical line that ends in a larger, multi-pin connector with two pins at the bottom. This connector is plugged into a larger, blue rectangular box on the right labeled 'Intellectual Property'. The 'Intellectual Property' box has a subtle reflection effect below it. The background features a blue and black abstract graphic in the bottom-left corner.

# Web Sites: Patents, Trademarks, and Copyrights

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

(Patents and Trademarks)

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

(Copyrights)



# Patents – From Then to Now

# Patent Law

In the 1970's:

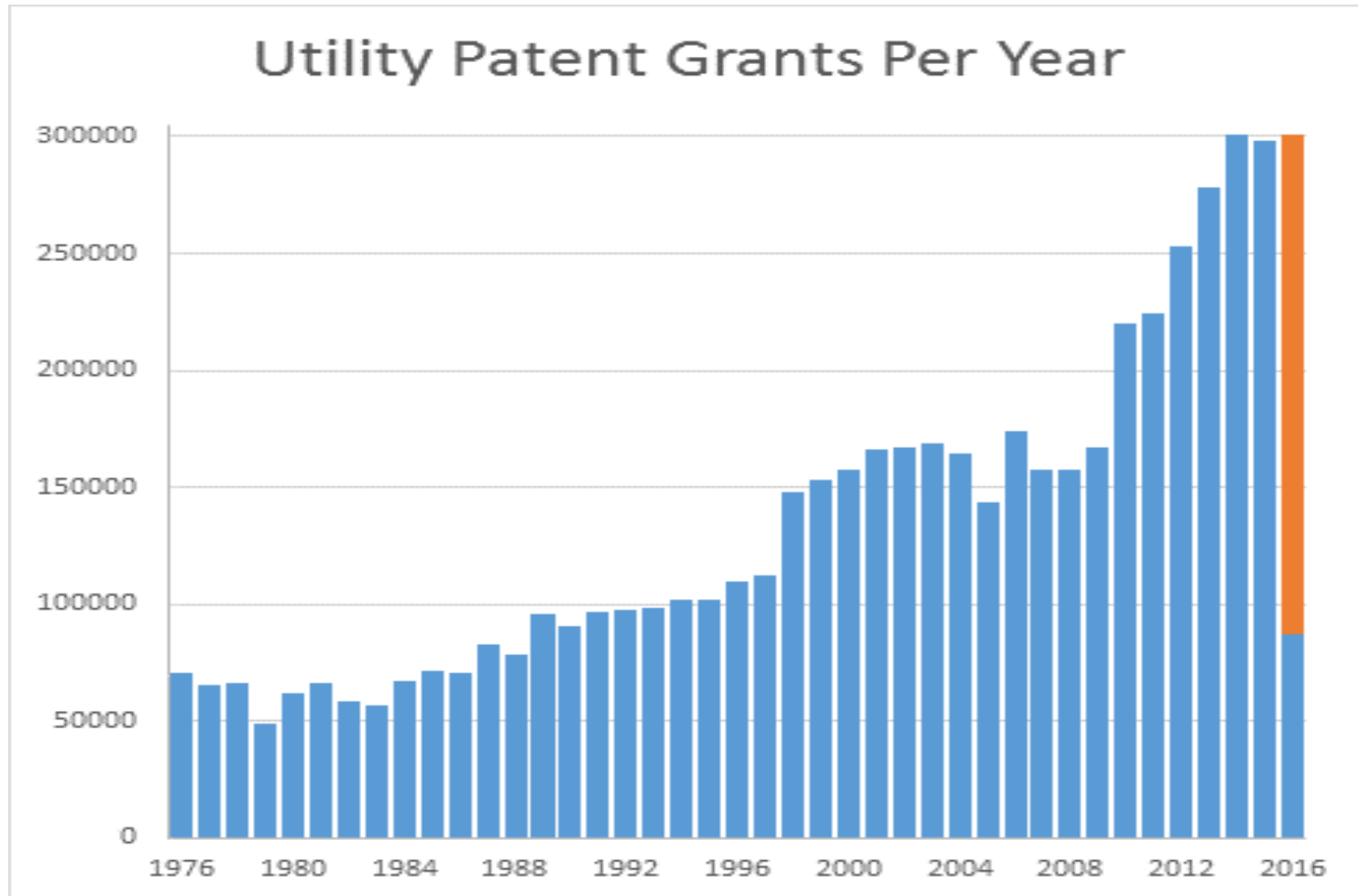


# Patents in the U.S. (cont'd)

Today:



# U.S. Utility Patents





# No Patent or Trade Secret – Trademark



# Why Patent? – Pros



• good marketing tool.

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• Creates asset – looks good in the business plan – helps to raise



• Ability to use patents strategically: enforce, assign/sell/license – trade to avoid litigation – provides leverage in settling litigation.

# Why Patent? – Pros

- **Commercial advantage** over competitor (barrier to entry by competitors –enhanced market share and higher margins to recoup front-end investments until non-infringing substitutes appear).
- Reflects

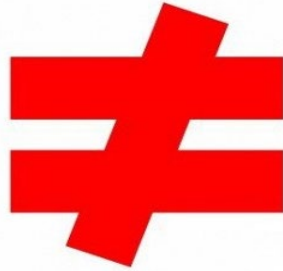


# Why Patent? – Cons



- Long time to get a patent – average of 3½ years (utility) and 18 months for design.

# Why Patent? – Cons (cont'd)



- Patents require **full public disclosure** of invention – sacrifice secrecy – educate competitors.

# Why Patent? – Cons (cont'd)

- Limited life – 20 years after filing (utility); 14 years after filing for design patents



to get and to enforce.

# What is “Patent Eligible”?

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

(genetically-engineered bacteria that broke down crude oil)





# What is Not “Patent Eligible”?

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





# U.S. Patent Territory



- Separate patent necessary in each country – no one patent covers the world.

# When Does An Invention Occur?

Conception



+

“Reduction to Practice”



=

Invention



# Joint Inventors

“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.”

# Patentability Tests

I. Utility

II. Novelty

III. Non-Obviousness

# Patentability Tests

## I. Utility:

Is the subject matter “patent-eligible”? And, if so, does it work?

# Patentability Tests

## II. Novelty

Is the claimed invention disclosed anywhere in the “prior art”?

# What is “Prior Art”?

“Prior art” is any:

- patent/publication or
- public use or
- commercial offer to sell or sale

*which pre-dates the **invention** anywhere in the world.*

# Patentability Tests

## III. Non-Obviousness

Even if new and novel, would the claimed invention have been obvious to one skilled in the art at the time of the invention?



# Provisional Patent Application

- Provides a lower-cost first patent filing in the United States than a formal utility patent application.
- Inventor can say “patent pending” for up to 12 months while refining the invention and explore commercialization.
- Not examined in the USPTO.

# Provisional Patent Application (cont'd)

## CAUTION

If no non-provisional (*i.e.*, utility) application filed within 12 months, provisional application automatically becomes abandoned.

# Types of Patents – 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.** ..... 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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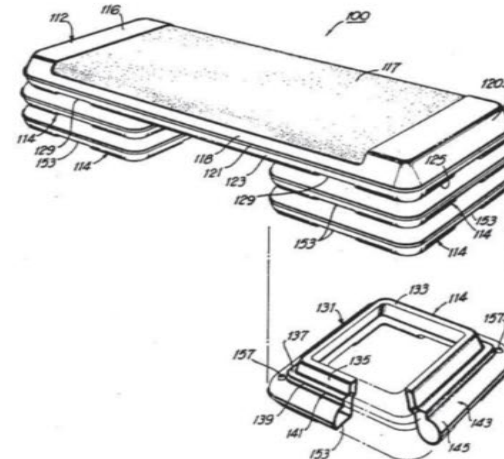
0901614 5/1972 Canada ..... 272/113

*Primary Examiner*—Stephen R. Crow  
*Attorney, Agent, or Firm*—Needle & Rosenberg

[57] **ABSTRACT**

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”

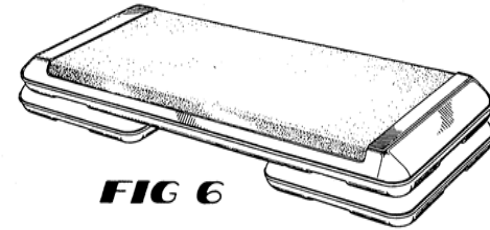


U.S. Patent

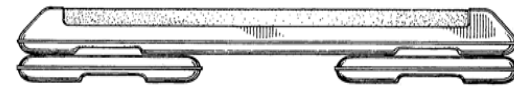
Oct. 6, 1992

Sheet 2 of 2

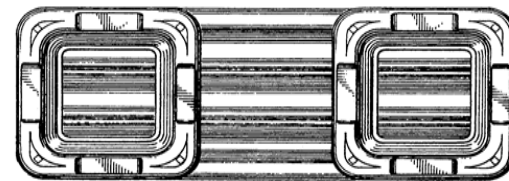
Des. 330,057



**FIG 6**



**FIG 7**



**FIG 8**



**FIG 9**

# Types of Patent Searches

Planning to develop and launch a new product/process?

I. What's out there? **State-of-the-art search**

II. Is it patentable? **Patentability/novelty search**

III. Does it infringe at least one claim of a patent? **Infringement/Freedom-to-operate search**

# State-of-the-Art Search

Comprehensive search that provides a general idea about the prior art in a particular field of technology.



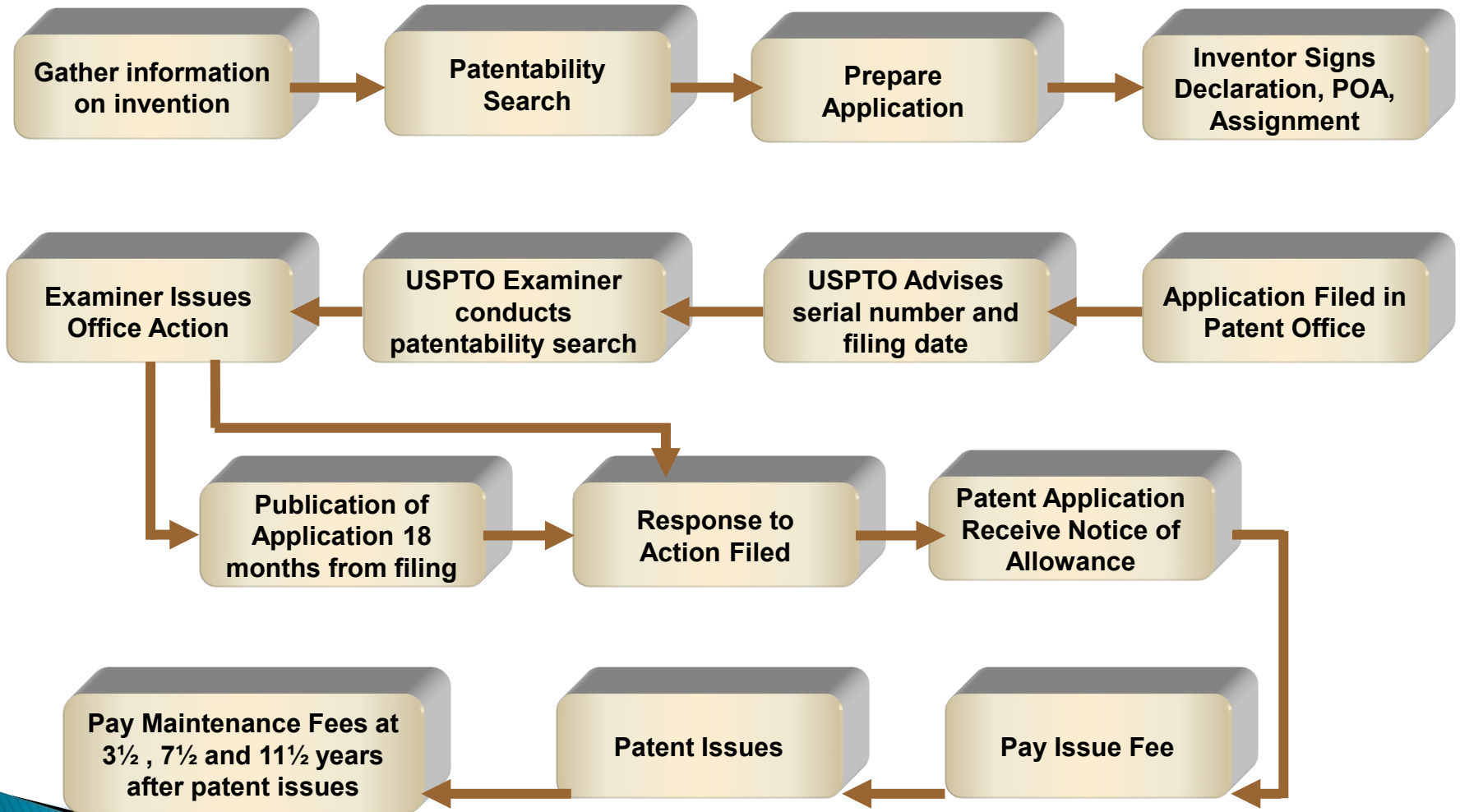
# Patentability Search

- Not required to file patent application.
- Ideally, do world-wide prior art search but at least U.S. search.
- Review each patent or application, except for their claims.

# Infringement/Freedom-to-Operate Search

- Search patents/applications in country/countries in which you're going to do business in.
- Only care about non-expired patents.
- Recommended that get opinion(s) from U.S./foreign patent attorney.

# Flowchart for U.S. Utility Patents



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

# 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**





# – 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.**

# Websites for Free Patent Searches

## U.S. Patents and Published Applications:

[www.uspto.gov/patents/process/search/index.jsp](http://www.uspto.gov/patents/process/search/index.jsp)

## U.S. and European Patents:

[www.google.com/advanced\\_patent\\_search](http://www.google.com/advanced_patent_search)

<http://ep.espacenet.com> (EPO website)



# Examples of Trade Secrets



# Definition of a Trade Secret

1. **Secret** – must not be generally known by or readily ascertainable to competitors.



2. It confers a **competitive advantage** on its owner.

3. 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? (cont'd)

- 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? (cont'd)

Additionally, a trade secret can be a:

- device/machine,
- recipes,
- processes,
- software, databases,
- lab notebooks,
- unique combinations of **generally known** concepts, and

# What Can Be a Trade Secret? (cont'd)

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.”
- 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.

# 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”

## What are “reasonable efforts”?:

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

# “Reasonable Efforts to Maintain Secrecy”

## Additional “reasonable efforts”:

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

# Trade Secret Protection – Pros

- **Involves no applications, registrations** – 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.

**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 (cont'd)

Patent protection preferred  
where **technology is pioneering.**

THANK YOU!