

# PATENTS

Tom Penn  
Penn Institute, Inc.  
January 22, 1991

*Presentation given by Thomas A. Penn of Penn Institute, Inc. at the Cooper Union for the Advancement of Science and Art on January 22, 1991.*

*Information extracted from the books, Protecting Engineering Ideas & Inventions and Understanding Patents and Other Protection For Intellectual Property, which are written by Thomas A. Penn, an engineering manager, and Ramon D. Foltz, a patent attorney, and used by virtually every major manufacturer and university in the United States. Information on these books is included in this booklet.*

## IT MAY BE PATENTABLE IF

**#1 It's a process, machine, article of manufacture, composition of matter, or modification of any of these**

**AND . . .**

**#2 It's useful (usually is)**

**#3 Novel (i.e. not identical to "prior art")**

### PRIOR ART

**Publicly known cumulative technical experience and knowledge of every person who has ever lived.**

**#4 And not obvious (i.e. sufficiently different from prior art)**

- **Usually very difficult to determine**
- **Courts have last word**

## **THE UTILITY PATENT OWNER'S RIGHTS**

**For 17 years owner can PREVENT others from "practicing" (i.e. making, using, or selling) the patented invention within the U.S. and U.S. territories and possessions.**

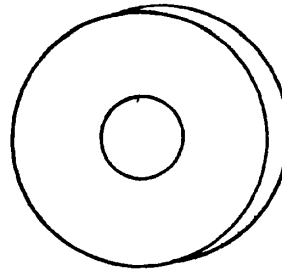
- Nobody -- not even the patent owner -- has an automatic right to practice the invention. May infringe on patent rights of others.**
- Protection in foreign countries requires getting foreign patents in those countries in accordance with their rules.**

## PATENT CLAIMS

- \* **Most important part of patent application or patent**
  
- \* **Identify features which claim to make invention patentably different from prior art**
  
- \* **Very difficult to write**
  
  
- **Each claim is compared to prior art. Patent is granted only if all claims are found patentable.**
  
  
- **Does not have to be "better" than prior art.**

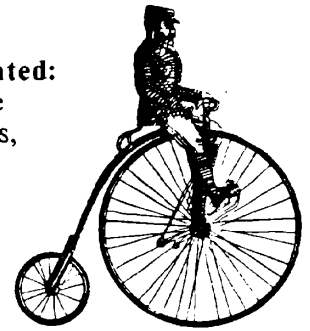
**FLINTSTONE WHEEL PATENT**

**(All New Technology)**  
The first wheel patent; its teachings and technology prevent future wheels from being patented unless the later wheels are patentably different from the Flintstone wheel.



**Technology Patented:**  
solid stone, short cylinder with hole in center for a load-bearing axle

**Technology Patented:**  
resilient rim, axle hub with bearings, lightweight steel spokes

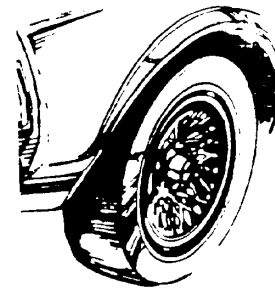


**BICYCLE WHEEL PATENT**

**(Old Technology)**  
Uses technology already included in prior art; i.e. building a bicycle wheel requires practicing technology covered by patented (including the Flintstone wheel patent) and unpatented prior art.

**(New Technology)**  
Patentable; the patent claims new technology which is different than known or shown in prior art references, including the technology disclosed or claimed in the Flintstone wheel patent.

**Technology Patented:**  
replaceable pneumatic rim, aluminum hub



**AUTOMOBILE WHEEL PATENT**

**(Old Technology)**  
Uses technology already included in prior art; i.e. building an automobile wheel requires practicing technology covered by patented (including the Flintstone and bicycle wheel patents) and unpatented prior art.

**(New Technology)**  
Patentable; the patent claims new and different technology than known or shown in prior art references including the technology disclosed or claimed in either the Flintstone or bicycle wheel patent.



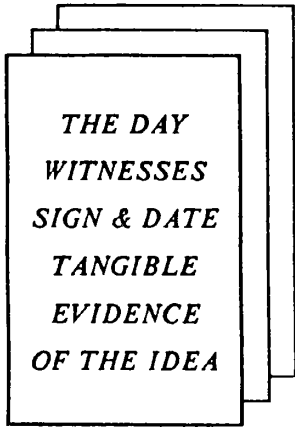
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**... And It All Contributes To The Growth Of Prior Art**

**The Pyramid Of Patentability**

**#1**

**DATE OF CONCEPTION**



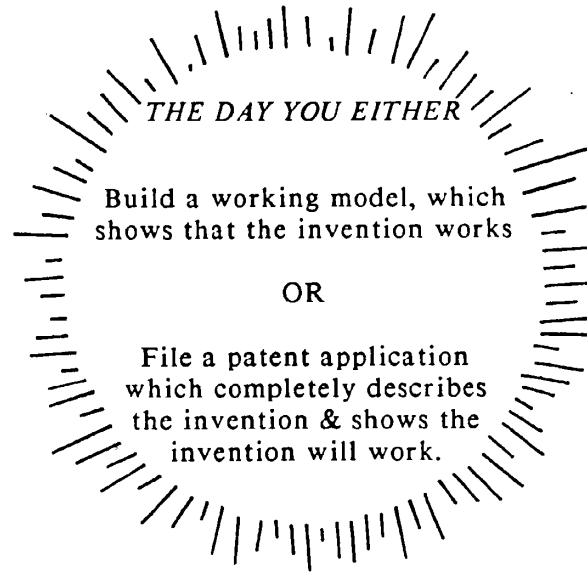
**#2**

**SHOW DILIGENCE**



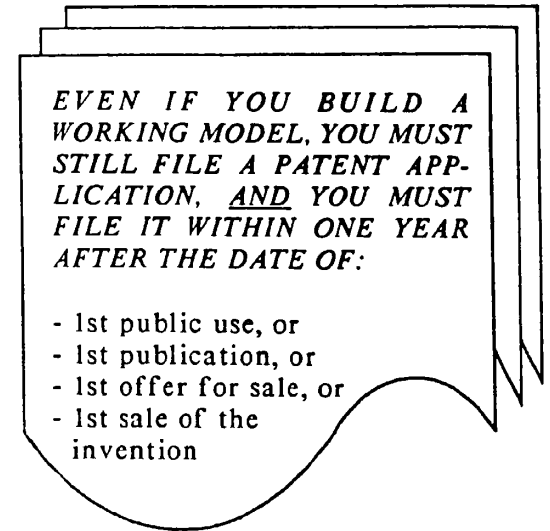
**#3**

**DATE OF REDUCTION TO PRACTICE**



**#4**

**PATENT APPLICATION**



**TO DOCUMENT DATE OF CONCEPTION:**

Make numbered and dated comprehensive sketches and written descriptions, and have them signed and dated by all the inventors and two witnesses who:

- Are not the inventors
- Fully understand the idea behind the invention
- Will be around years later to testify in court if necessary

Always use actual dates, never backdate.

**TO DOCUMENT DILIGENCE:**

Record project progress (or failure) using lab notebooks and project reports; and

At least once per month, all of the inventors and two technically capable witnesses should sign and date the entries.

Witnesses do not have to be the same as those who witnessed the date of conception.

Always use actual dates, never backdate.

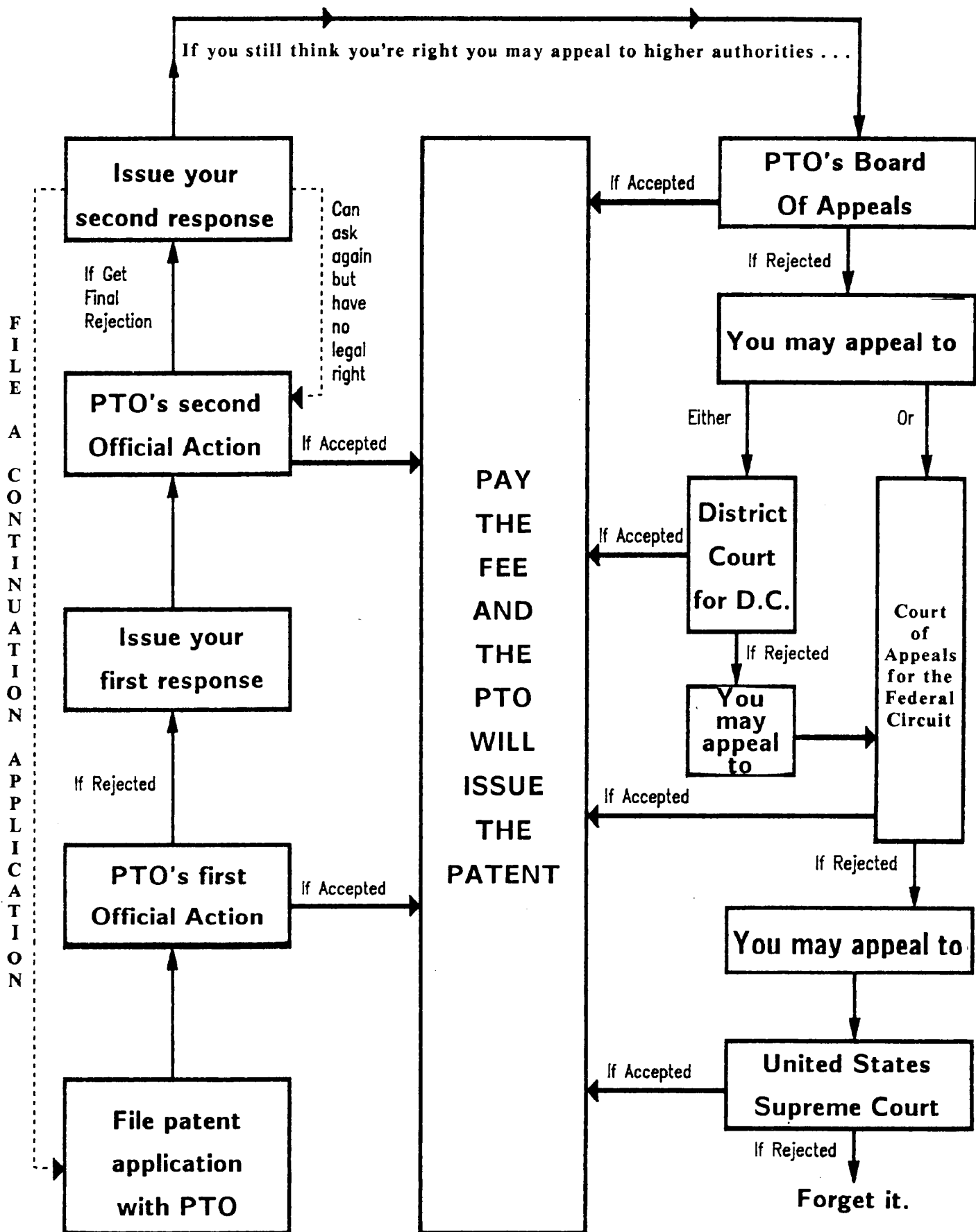
**TO PROVE DATE OF REDUCTION TO PRACTICE:**

**By building a working model**

Normally can use test records, purchase orders, etc. but we recommend that you use same recording techniques as for diligence.

**By filing a patent application**

The Patent & Trademark Office will issue a receipt, filing date, and serial number which will establish the filing date for the application.



The Flow Of A Patent Application

## **U.S. AND FOREIGN PATENTS CAN BE EXTREMELY VALUABLE**

**But only if . . .**

- \* The invention has commercial value**

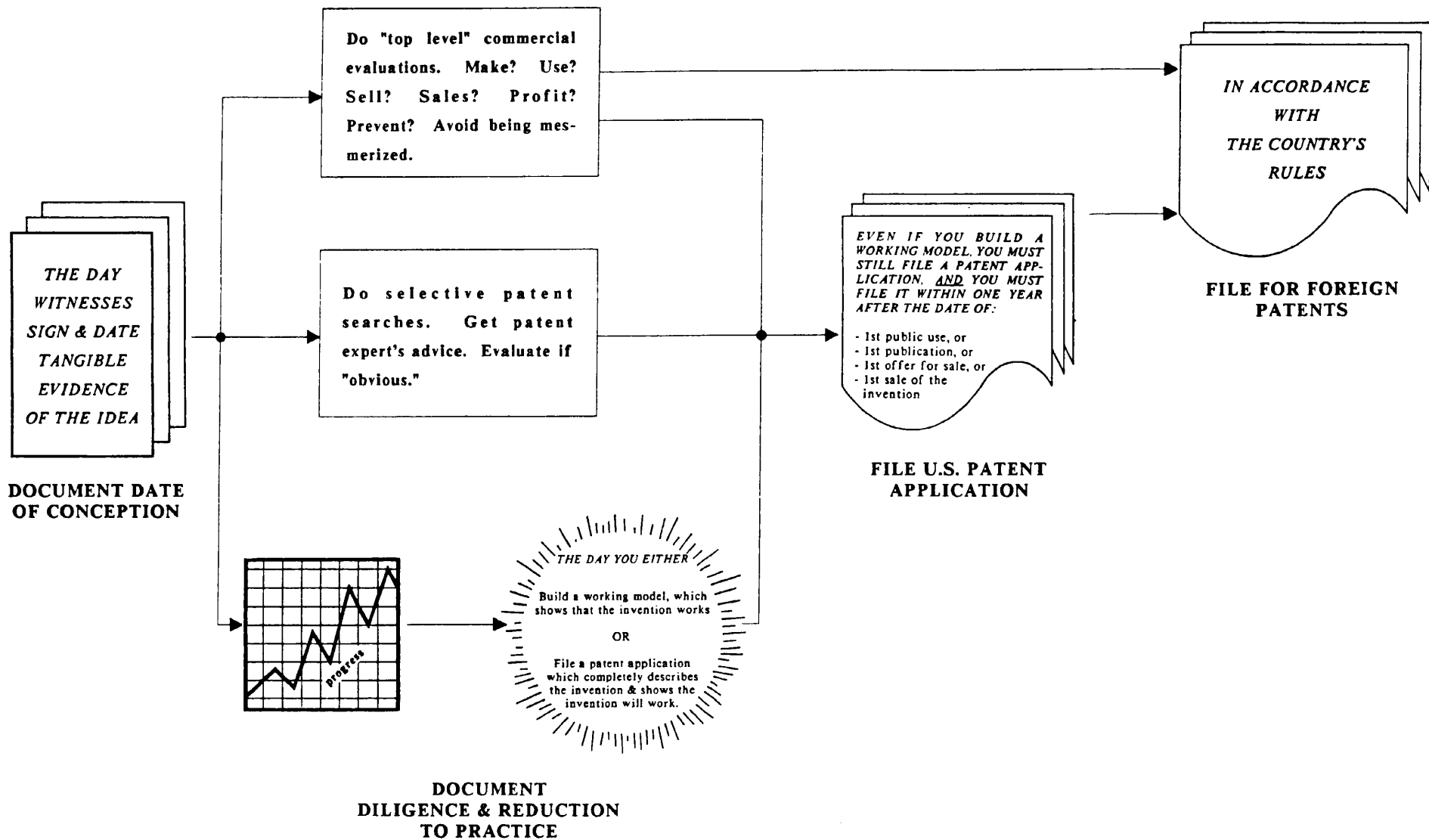
**And patents are costly . . .**

- \* Typical U.S. patent costs for individuals and small companies:**

Patentability Search	\$500 - \$1,000
Writing of Application	\$2,500 - \$5,000
Claims (assume 6 independent claims)	\$90
Application Filing Fee	\$315
Prosecution of Application	\$2,500 - \$5,000
Issue Fee	\$525
Total U.S. Maintenance Fees	\$2,500
<b>Approximate Total</b>	<b>\$8,930 - \$14,430</b>

- \* Many foreign patents costs about the same as U.S. patent**
- \* Costly to get many patents**





**SUMMARY**