

Inventions and Lab Notebooks

Andy Branca, Ph.D.
Director Industry Relations
UWEB

What is an Invention?

An Invention may be defined
2 Ways

1. What is not an Invention
2. What does comprise an Invention

An Invention is Not:

- ◆ Printed Matter
- ◆ A mere arrangement of printed matter, though seemingly a “manufacture” is not an invention. Note, however, that Copyright laws offer protection for original works of publications.
 - Source: MPEP: In re Miller, Ex parte Gwinn, and In re Jones

An Invention is Not:

- ◆ A Naturally Occurring Article
- ◆ A thing occurring in nature, which is substantially unaltered, is not a “manufacture”.

Source: MPEP
and Ex Parte Grayson

An Invention is Not:

- ◆ A Method of Doing Business
- ◆ Example: a new life insurance program, though innovative and profitable, is not an invention.
 - Source: MPEP and Hotel Security Checking Co. v. Loraine Co., and In re Wait

Some interesting recent internet cases.....

using technology to patent business models

DE Technologies:

- “Universal Shopping Center for International Operation” *alleged* that a patent has been allowed but not yet issued
- Companies *alleged* to be infringing:
 - “Every company you can think of.”
 - The Wall Street Journal, Aug. 28, 2000.

Priceline.com:

- US # 5,794,207 - *Method and apparatus for a cryptographically assisted commercial network system designed to facilitate buyer-driven conditional purchase offers*

Amazon.com:

- Patented for “1-click shopping” software code - Dec. 1999
- US # 6,003,024-*System and method for selecting rows from dimensional database*
- Injunction against Barnes & Noble
 - Although B&N used their own code, Amazon sought relief and received an injunction against B&N
 - B&N got Appeals court to overturn injunction - Feb. 2001

An Invention is Not:

◆ A Scientific Principle

- A scientific principal, divorced from any tangible structure, may not be considered an Invention.

◆ Example: Einstein's theory of relatively is a scientific principal, but not an invention.

- If someone used the theory of relatively to create a time machine, that machine would be an invention.

– Source: MPEP

An Invention Is:

“a new, useful, and unobvious...”

- ◆ Process
- ◆ Machine
- ◆ Manufacture
- ◆ Composition of matter

– Source: 35 USC 101/103

An Invention Is a Process

“Process” means

- ◆ chemical, electrical, or mathematical
- ◆ art
- ◆ method

and includes new use of a known process,
machine, manufacture, composition of
matter, or material

– Source: 35 USC 100

A silver metal spiral binding is visible on the left side of the page, looping through a series of holes. The page is a light cream color and is set against a dark brown background that resembles a notebook cover.

An Invention Is a Machine

“Machine” generically denotes anything mechanical or electrical having cooperating parts that accomplish some useful result, usually some act or operation on itself or on an article or workpiece.

An Invention Is an Article of Manufacture

- ◆ Similar to a “machine” or apparatus. Machines generally have moving parts, and some “rule of operation”.
- ◆ “Articles of manufacture” have no moving parts.
- ◆ A resistor
- ◆ A soap dish

– Source: Landis

An Invention Is a Composition of Matter

The chemical nature of the substances or materials comprise the distinguishing characteristic---compare to machines, where the shape comprises the distinguishing characteristic

- ◆ compound/ mixture
- ◆ molecule
- ◆ living organism

– Source: Landis

What is a Patent?

- ◆ **US Constitution:** The Congress shall have power:
To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.
- ◆ The legal, exclusionary rights granted by the government through patents and copyrights encourage investment and otherwise enable commercial value to derive from inventions and expressions.

From the US Constitution

United States Copyright Office

"To promote the progress and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

(U.S. Constitution, Article 7, Section 8)

US Patent and Trademark Office

The basic role of the Patent and Trademark Office (PTO) is to promote the progress of science and the useful arts by securing for limited times to inventors the exclusive right to their respective discoveries

(U.S. Constitution, Article 1, Section 8)

Basic Tests for Patentability-Critical Dates

- ◆ Patent application must be on file within one year from the following events:
 - First publication anywhere in the world
 - First public use
 - First sale or offer for sale in the U.S.
- ◆ One year grace period (one year test marketing time)
- ◆ Limited exceptions: experimental use does not start one year clock

What is a Patent?

- ◆ A U.S. Patent is a right to **EXCLUDE** others from
 - Making
 - Using
 - Selling
 - Offering to sell
- ◆ The patented invention (based on the **ISSUED** claims.)

Freedom to Practice

- ◆ A U.S. Patent does not grant the owner the right to practice the invention
- ◆ Can be used to “block” others (defensive)
- ◆ Need to perform infringement searches
- ◆ Can proposed technology be practiced without infringing the patent of another?

Basic Tests for Patentability

- ◆ “Positive” Test (35 USC 101-- “Inventions Patentable”)
- ◆ Must be an “Invention” or “Discovery” i.e. Machine, Article of Manufacture, composition of Matter, or process (as previously discussed)
- ◆ Must be New, Useful and Unobvious
- ◆ or--any Improvement
- ◆ Application must teach those “skilled in the art”
- ◆ Reduced to practice - “preferred embodiments”
- ◆ Utility- as for DNA EST’s- PTO ruling in 2000

Basic Tests for Patentability

- ◆ “Negative” Test (35 USC 102-- “Conditions for patentability; novelty and loss of right to patent”)
- ◆ “A person shall be entitled to a patent UNLESS:” (a) through (g)

Basic Tests for Patentability

(35 USC 102)

- ◆ (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or...

Negative” Test (35 USC 103)

“nonobvious subject matter”

- ◆ “A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains...
- ◆ Principle of the “unexpected result”



Keeping a Lab Notebook

- ◆ A Lab Notebook is solid evidence if your patent is ever challenged as to inventorship or dates of invention.
- ◆ Provides proof of:
 - Conception
 - Diligence
 - Reduction to Practice

Lab Notebook

- ◆ A Lab Notebook is generally NOT submitted to the Patent and Trademark Office as part of the patent application process.
- ◆ Lab Notebook WOULD be used in:
 - An interference proceeding
 - A lawsuit



The "Perfect" Lab Notebook for recording Inventions

1. Pages bound, consecutively numbered
2. Title (what your invention is called)
3. Purpose (what problem is it intended to solve)
4. Description (structural and functional)
5. Sketch
6. Ramifications

The "Perfect" Lab Notebook for recording Inventions

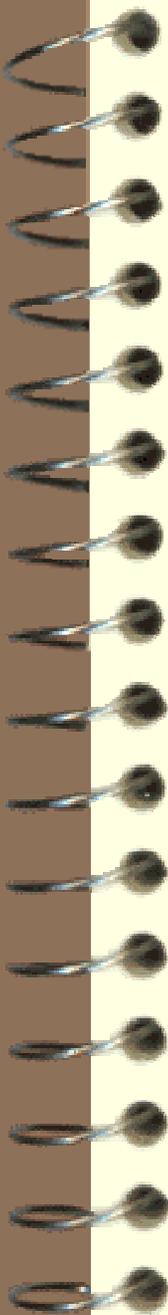
7. Novel Features

8. Closest known prior art

9. Advantages (over previous developments)

10. Inventor(s) signs and dates every page

11. Every page is witnessed by someone else, who is not an inventor of the invention but who understands the invention.



Proper Method to Enter Technical Information into Lab Notebook

1. Sketches, diagrams and writing should be written clearly, preferably in ink, and double-spaced.
2. Don't use legal terms--just make it understandable.
3. Use sketches if you have writer's block.
4. Want to preclude erasure and substitute entries--so don't leave large blank spaces; or, if a large blank space is apparent, cross-hatch over it so the space is "filled."

Proper Method to Enter Technical Information into Lab Notebook

5. Don't erase mistakes. Line out a mistake, date the lineout, and note (in the margin) why the item is lined out.
6. Be honest and candid! If you're making an entry today about something you thought about several months ago, show both today's entry and the date you actually thought of it.

Illustrative example

Title: Exploding Golf Club

Purpose: To extend the range that a golfer can hit a golf ball.

Description: The head of a golf club (must be a wood) would incorporate a shot-gun shell with the buck-shot removed. The head of the club would have something which, when it contacts the golf-ball, would ignite the shotgun shell. The shell would blast backwards in the direction of the swing, forcing the club to have more power through the swing. This would make the ball fly farther, allowing me to beat my golf-partners.

[sketch]

Sample Lab Notebook (Cont'd)

Ramifications: need to develop a special contact pin to set off the shot-gun shell.

Novel features: to my knowledge, no-one has ever thought of combining a shot gun shell into a golf club before.

Advantages: Improves my 180 yard drive to over 300 yards consistently.

Disadvantages: If I don't hold onto the club tightly, it could blow out of my hands. If you use a shot-gun shell with the buckshot still in it, you could seriously injure golfing partners standing behind you.

Sample Lab Notebook (Cont'd)

◆ [Test Description/Test Results, etc.]

◆ Inventor:

Dated: _____

◆ Witnessed and understood

	Sample #	Cpm
A set of 6 samples was prepared using the methods described on page 72 of book (No. 5- Oct 1992-Feb 1993)	1	1100
1 Blank	2	13000
2 Cell prep 1	3	25
3 Cell prep 2	4	3215
4 Cell Prep 3	5	4635678
5 Mock Prep- no cells	6	23456
6 Reagent Standard		

Nothing written Under these Sheets
Andy Branca
4/13/01

Andy Branca

Invented By

Date: 4/13/01

Buddy Ratner

Witnessed and understood by

Date: 4/13/01

Some References

Patent Information Users Group

<http://www.piug.org>

MPEP (Manual of Patent Examining Procedure)

<http://patents.ame.nd.edu/mpep/>

Landis on Mechanics of Patent Claim Drafting, Fourth Edition

by Robert C. Faber

(Ostrolenk, Faber, Gerb & Soffen, New York City)

Practising Law Institute

http://www.ljx.com/COOP/pages/pli_code2.html

Copyright Notice Hot Links

<http://www.webplex.net/links/copyright.html>