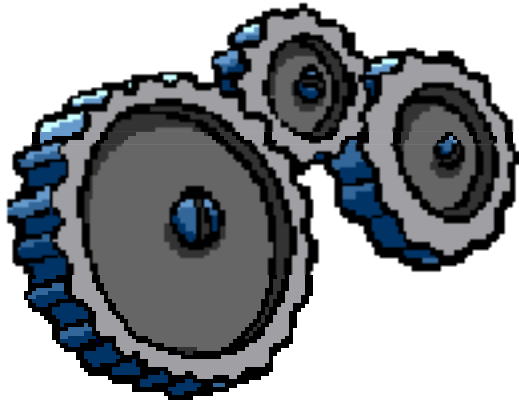




Patent Law:

A Primer for Engineers and Scientists

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Leela Madan
Osha Liang LLP



Intellectual Property

- Two types of property
 - “Tangible” property
 - Personal property - cars, boats, etc.
 - Real property - land, houses
 - Intellectual Property - creations of the mind
 - Inventions
 - Literary and artistic works
 - Symbols, names, and images used in commerce.



Intellectual Property

Engine of our economy

Stimulates investment in:

Technology

Literature

Art

Music

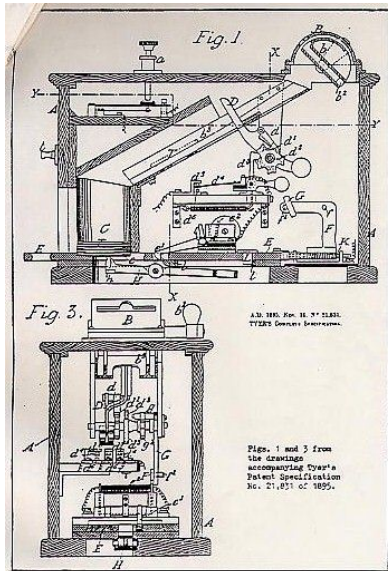
Architecture



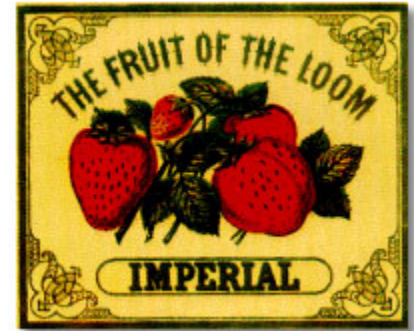


Intellectual Property

Pat.
Pending



Patents
Copyrights
Marks
Trade Dress
Trade Secrets



● ● ● | Patents -- Motivation for Innovation

- Provide a monopoly of limited duration as a reward for development of new technology
- Facilitate sharing of new ideas and technologies





Types of Patents

- Utility Patent
 - Protects the way something works, is used, or is made
 - Usually what is meant by “a patent”
- Design Patent
 - Protects the ornamental design of an article
- Plant Patent
 - Protects hybrid plant varieties



THE PATENT BARGAIN



- Inventor gets the exclusive right for limited time
- Public gets full disclosure of the technology; right to use when patent expires



“Patent Bargain” places emphasis on the patent document itself

- Patent rights flow from patent application
 - Written description or “specification”
 - Drawings when appropriate
 - “Claims”
 - Claims define the scope of patent “monopoly”
 - Each claim stands independently
 - Validity of each claim determined separately

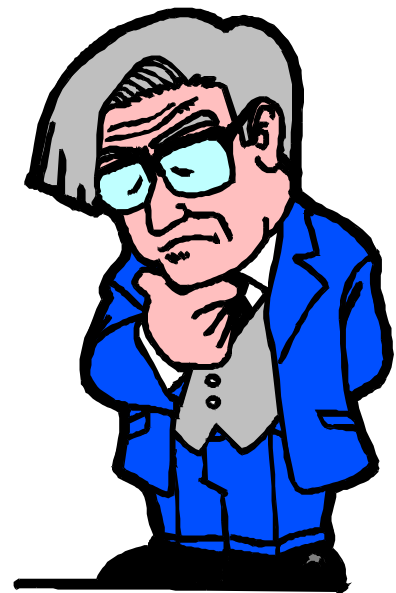


Requirements for the Patent Application

- Enablement
 - Teach how to make and use invention without undue experimentation
- Written description of invention
 - Explains what the applicant believes the scope of the invention to be
- U.S. only – “best mode”
 - Duty to describe the best mode of carrying out the invention known to the inventor at the date of filing

THE BETTER THE DISCLOSURE...

- THE STRONGER THE PATENT
- THIS IS THE **OPPOSITE** OF WHAT MANY PEOPLE THINK
 - More detailed patent specification supports broader claims!



FOR WHOM DO WE WRITE
THE PATENT DISCLOSURE?





Patent Claims

- Series of numbered paragraphs that define scope of invention
 - Typically arranged from broadest to narrowest
 - May include apparatus, method of making, method using, etc.
- Obtaining allowance of claims is process of negotiation
 - Most applications are initially rejected



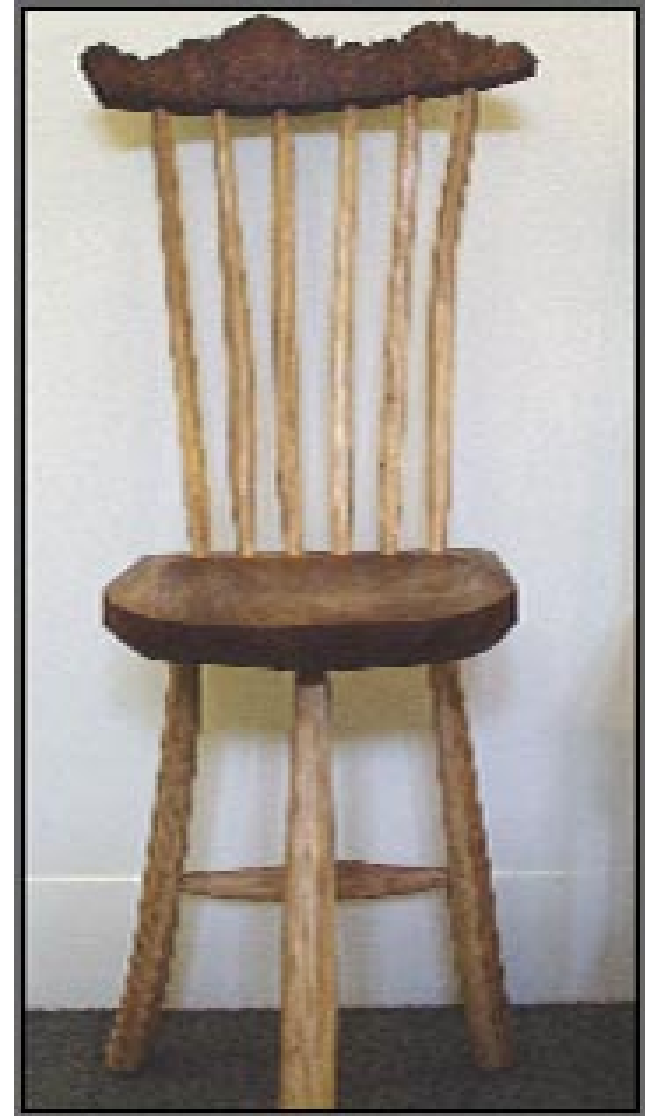
Claiming Scissors....



- 1. A cutting tool, comprising:
 - a first member having a first cutting edge;
 - a second member having a second cutting edge; and
 - a fastener for coupling the first member to the second member.
- 2. The cutting tool of claim 1 wherein the fastener comprises a pivot pin.
- 3. The cutting tool of claim 1 or claim 2 wherein the first cutting edge and the second cutting edge are serrated.

● ● ● | Claiming a Chair

- A chair comprising:
 - a seating surface;
 - a first leg extending downwardly from the seating surface;
 - a second leg extending downwardly from the seating surface;
 - a third leg extending downwardly from the seating surface; and
 - a back support extending upwardly from the seating surface.





Do they infringe?

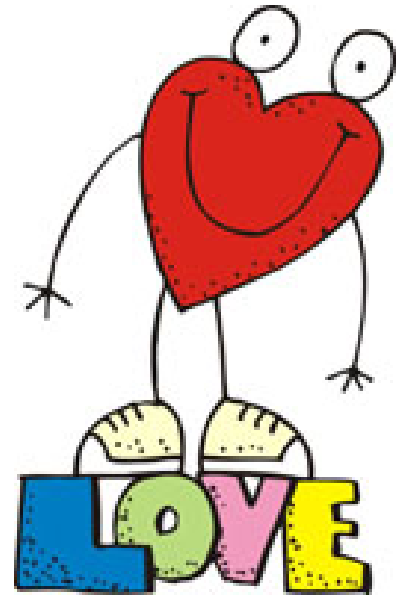


LOOK BEYOND « TYPICAL » INVENTIVE SUBJECT MATTER

- New products – of course!
- Don't forget methods
 - Methods of making
 - Methods of using
 - Methods of doing business
- Don't forget intermediates and components of products



E-Harmony Patent Issued May 11, 2004



1. A method to be performed by a computer for operating a matching service, comprising:

generating, from empirical data, a number of factors corresponding to a like number of functions of one or more variables relevant to relationship satisfaction;

approximating the satisfaction that a user of the matching service has in the relationships that the user forms with others;

identifying, with the computer, candidates for a relationship with the user by determining an association between the approximated satisfaction and one or more of the factors; and

approximating the satisfaction that the user will have in a relationship with a particular candidate.



DESIGNS CAN BE PATENTS, TOO

- Scope of design patent coverage more narrow than utility patent
- BUT, wide variety of things may be subject of design patent

DESIGN OF A SNEAKER

United States Patent [19]
Greenberg

[11] Patent Number: Des. 299,081
[43] Date of Patent: ** Dec. 27, 1988

[54] SHOE UPPER

[75] Inventor: Robert Y. Greenberg, Woodland Hills, Calif.

[73] Assignee: L.A. Gear, Inc., Los Angeles, Calif.

[**] Term: 14 Years

[21] Appl. No.: 122,003

[22] Filed: Nov. 18, 1987

[52] U.S. Cl. D2/314; D2/309

[58] Field of Search D2/264, 265, 271, 272, D2/308-314; 36/45, 83, 84, 10, 87-89, 112, 102-107, 114, 132, 136

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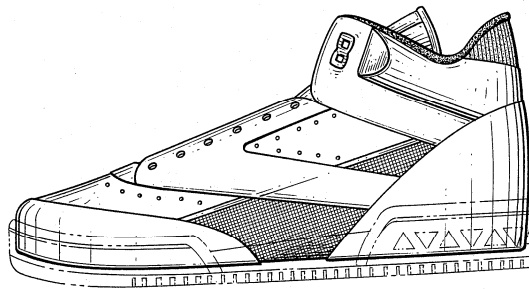
Primary Examiner—Louis S. Zarfus
Attorney, Agent, or Firm—Lerner, Marshall A.,
Matthew F. Jodziewicz

[57] CLAIM

The ornamental design for a shoe upper, as shown and described.

DESCRIPTION

FIG. 1 is a right side elevational view of a shoe upper showing our new design. The broken line showing of a shoe sole is for environmental purposes only and forms no part of the claimed design;
FIG. 2 is a top plan view thereof;
FIG. 3 is a bottom plan view thereof;
FIG. 4 is a left side elevational view thereof;
FIG. 5 is a front elevational view thereof; and
FIG. 6 is a rear elevational view.





Design Patents

- Cheap, quick, effective narrow scope of protection
- Underused in most cases
- Overlooked in “non-design” industries



The Patent Timeline

- Conception of idea
- Disclosure of idea to agent / attorney
- Drafting / filing of patent application
- Examination of application by USPTO
- Issuance of patent
- Does anyone infringe?
- Lawsuit (\$\$)



Examination Process

- Examiners at USPTO review application to ensure patentability requirements are met:
 - Application Requirements
 - Description requirements
 - Utility / patentable subject matter
 - In view of what was known to others at the time of invention
 - Novelty
 - Non-obviousness



Patent issued, now what?

- Monitor competitor activities to protect patent rights
- Infringing Device?
- Opinion of counsel – analysis of patent vs. device
- Can sue for monetary damages and injunction



International Protection?

- NO “international” patent
- Each country must be covered individually
- Treaties and regional groups exist to make this easier
- Europe moving (slowly) toward Community Patent



Patent Careers?



Practice Before the USPTO

- USPTO - Federal Agency
 - State has no control over practice before the patent office
 - USPTO sets their own rules for admission and practice
- Only registered practitioners are permitted to represent clients before the USPTO
 - Patent Agents
 - Patent Attorneys



Practice Before the USPTO

- Patent Agents are non-attorneys that have successfully passed the Patent Bar Exam
- Patent Attorneys are either Attorneys that have passed the Patent Bar Exam or Patent Agents that have become licensed Attorneys
- The USPTO views Patent Agents and Patent Attorneys as equals
 - Becoming a Patent Attorney permits you to be involved in Litigation and Opinion matters



The Patent Bar Exam

- Applicants must make a showing of technical competence before being allowed to sit for the exam
- How technical competence may be shown:
 - Approved Bachelor's degree
 - List of approved degrees and institutions kept at USPTO
 - Sufficient number of hours in pure science
 - Physics, Chemistry, Biology



Corporate Jobs Related to Intellectual Property

- Engineer/Scientist (Inventor)
 - Create your own intellectual property
- Project manager
 - Identify and manage IP issues as project progresses from idea to finished product
- Corporate IP manager
 - Identify and manage IP issues for **all** or a substantial portion of company's projects
- In-House Counsel
 - Liaison between IP manager and project manager/inventors
 - Directs "outside" counsel



Law Firm Jobs Related to Intellectual Property

- Patent Engineer / Technical Advisor
 - Draft and prosecute patents, but not registered with the USPTO
 - Must work under the supervision of a Patent Agent or Attorney
- Patent Agent
 - Draft and prosecute patents
- Patent Attorney
 - Draft and prosecute patents
 - Litigation
 - Advice and opinions of counsel



Who is Osha Liang LLP?

- Intellectual property boutique law firm
- Offices in
 - Houston
 - Santa Clara
 - Paris
 - Tokyo
 - Austin



Our Practice Areas

- Aerospace
- Manufacturing
- Automotive
- Consumer Electronics
- Biotech
- Pharmaceuticals
- Oilfield Technologies
- Chemicals
- Nanotech
- Software
- Telecommunications



Who do we hire?

- MEs
- ChemEs
- Chemists
- EEs
- CompEs / CompSci
- Physicists



Do I need a law degree?

- NO!
- Osha Liang hires engineers and scientists and trains them to be patent agents
 - Easier to teach skilled engineers / scientists to be lawyers than it is to teach new lawyers to be skilled engineers / scientists
 - Firm members have an extremely high level of technical skill and competence



But I don't know what I am doing...

- New hires are assigned a mentor with a similar technical background
- Mentor provides work, support, and face-to-face training
- Weekly training lectures taught by partners or senior legal staff



What would my day be like?

- Draft patent applications
- Respond to examination reports
- Advise clients on patent portfolio to best protect their interests (in US and abroad)
- Analyze competitor activities



Typical Patent Attorney Career Path

- B.S. degree in engineering or science
 - 4–5 years
- Graduate school (optional)
- Full-time law school (J.D. degree)
 - 3 years (no summers)
- Study for and take state bar exam
 - 2 months (plus 3 months for results)
- Study for and take patent bar exam
 - 1–2 months
- Up to 8.5 years of study
 - 0 years experience
 - Law school student loan debt



Osha • Liang Patent Attorney Career Path

- B.S. degree in engineering or science
 - 4–5 years
- Graduate school (optional)
- **Full-time work as “Patent Engineer”**
 - Study for and take patent bar exam while employed
- **Part-time** law school (J.D. degree)
 - Firm paid if employed ≥ 1 year
 - 4 years (including summers)
- Study for and take state bar exam
 - **1 month paid sabbatical from work**
- Same 8–9 years of study
 - 5.5 years experience
 - Zero law school student loan debt



THANK YOU!

THE END