Alumni Exchange
Intellectual Property Basics
Alumni Exchange
July 8th, 2020

University of Illinois at Chicago (UIC)
Office of Technology Management (OTM)

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Road map:

- A quick poll!
- Intellectual Property (IP) Basics.
- How does UIC manage IP & Entrepreneurship on campus?
- Some useful links and information.
IP: What kind?

- A patent (University of Florida)
- An old trademark (University of Florida)
- New trademark (??)
IP: What kind?

- Honey Crisp Apples (plant patent, U of Minnesota)
- Trademark (University of MN)
IP: What kind?

- Iris tube (patent, Purdue University); measures hydric content of soils…..
IP: What kind?

- A copyright protected exercise curriculum for osteoarthritis (over 100 licenses)
- A trademark owned by the University of Illinois.
Types of Intellectual Property

- Copyright
- Patent
- Trademark
- Trade secret (knowhow)
Unlike patent protection, copyright protection exists from the time a work is created in fixed form.

Owner has exclusive right to control:
- Duplication or reproduction
- Creation of Derivative works
- Distribution, public performance, or public display

Duration of copyright protection (as of 1/1/1978):
- Life of author plus 70 years
- Corporate author - the shorter of 95 years from publication or 120 years from creation

Registration © of copyright (with U.S. Copyright Office) is required to seek damages for copyright infringement.
Types of Patents

- Utility - A process, machine, manufacture, composition of matter, or useful improvements.

- Design
  - Applied more to “look” and function related design
  - Examples: designs of jewelry, furniture, beverage containers and computer icons and device design.

- Plant - specific to protection of plant species
Criteria for Utility Patent

- Utility
- Novelty
- Non-obvious
- Enabled

} in light of Prior Art
Key elements of a patent:

- **Inventors**: those who conceived invention and reduced to practice.
- **Assignee**: owner of the property rights of invention.
- **Priority Date**: Official date of invention disclosure.
  - Maintain confidential until public disclosure with non-disclosure agreements.
- **Abstract**: Summary of the invention
- **Drawings and diagrams**: to demonstrate the apparatus, or data to prove that the invention is enabled
- **Examples**: must disclose “preferred embodiment”
- **Claims**: defines the specific scope of the invention. **KEY**.
In accordance with FIG. 4, at the second end 16, where the rope would naturally be, a domed-shaped enclosure 20 is provided and secured to the handle 14 along perpendicularly to its symmetrical side 21, inside of such domed-shaped enclosure 20, a series of weighted balls 30 is provided. The enclosure 20 forms a circular outer sidewall 34, and inner sidewall 34 formed from smooth inner curved surface 32 and outer curved surface 32 and is smoothly outer curved surface 32 and inner curved surface 32, respectively. The circular outer sidewall 34 and circular inner sidewall 34 are in contact with the circular enclosure 32 on the opposite side of the handle 14. Having described the basic outline, jump rope of the present invention, one skilled in the art can see that various structural features can be incorporated in combination to provide a broader application device. One such feature is shown in conjunction with FIG. 4, in which a spherical cross-sectional view of an alternate embodiment is shown, incorporating a flexible extending encircling device 44. To adapt such an improvement, the handle 12 forms a hollow chamber 42 and the first handle-end 14 forms a chamber-enclosure 44 to provide access to the chamber 42. A threaded end cap 44 is threadably engaged with a threaded neck portion 44 to seal the hollow chamber 42. A length of tunable elongated, rotatable flexible member 50, such as is conventionally used in stretching or flexible exercise devices, is secured at each end within the chamber 45 by securing each end within the chamber 45 and with an end member 52 and rotating each end member 52 within a chamber 45 of such handle 12. Depending upon the length and structural characteristics selected for the flexible member 50, the exercise can be varied for stretching, warming up, or actual resistance exercise exercises.

Other improvements are anticipated. By way of example, and so forth, a filament that keeps track of the total length of the invention is used can be incorporated within the handle 12 or enclosure 20. Or so a similar filament, a filament that keeps track of the total length of the invention is used, can be incorporated within the handle 12 or enclosure 20 as well.

2. Operation of the Improved Embodiment
To use the invention, one holds a handle in each hand, and begins to simulate jumping rope while moving the handles in a circle with their hands and arms. The weighted ball or gear simulates the centrifugal action of a jump rope, thus obviating all the drawbacks of jumping rope without any of the disadvantages of straining on the rope, having the rope hit the ceiling or the like.

The foregoing description of specific embodiments of the present invention has been presented for purposes of illustration and description. They are not intended to be exhaustive or to limit the invention to the precise forms disclosed, and obviously many modifications and variations are possible in light of the above teachings. The embodiments were chosen and described in order to best explain the principles of the invention and its practical application, to thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as so related to the particular use contemplated. It is intended that the scope of the invention be defined by the claims appended hereto and their equivalents. Therefore, the scope of the invention is to be limited only by the following claims.

What is claimed is:

1. An exercise apparatus comprising: a pair of jump rope exercise handles that simulate the effects of jumping rope, each handle forming a tunable elongated, rotatable member housing a rope and opposite a second end thereof along a symmetrically balanced central axis; at least one weighted ball, a domed-shaped enclosure wound to said handle along and perpendicular to said symmetrical axis said enclosure forming a circular outer sidewall such that said outer sidewall and said inner sidewall bound and form smooth inner curved surface that is in contact and said elongated half such as to form a circular perpendicularly and symmetrically about said outer side of said handle and a flexible elongated member attached at said first end, whose said flexible elongated member so that each end member 52 within said chamber 45 of each handle 12.

2. The exercise apparatus of claim 1, further comprising: a hollow chamber formed in said handle and said first handle-end forming a chamber-enclosure to provide access to said hollow chamber.

* * *
Provisional Patent Applications

Provisional patent applications are similar to regular patent applications and may include:

- Patent drawings
- Detailed description of the drawings
- Claims (permitted, but not reviewed)

Differences from regular patent applications

- Expire in one year and do not issue as a patent
- Do not require claims
- Much lower filing fees
Search Tools

- US Patent Office:
  - USPTO (http://patft.uspto.gov)
- European Patent Office:
  - Espacenet (http://worldwide.espacenet.com)
- Google Patents (http://www.google.com/?tbm=pts)
- Commercial: Include Thomson Innovation (formerly Delphion), Minesoft PatBase, Lexis Total Patent
Trademark: What is it?

- Any symbol, word, name or device, or any combination thereof that serves to
  - 1.) identify and
  - 2.) distinguish

  the source of one party's goods and services from that of another.

- Well-known name associated with product
- May be valuable
- Used in some type of commerce
- Continued use necessary
Trademarks!
Trade Secret: What is it?

- Generally protected by state, not federal law.
- Protection of holder only if trade secret obtained by improper means.
- Must be valuable and readily known to others, be a competitive advantage, and subject to reasonable efforts to protect it.
- Requirements to maintain secrecy internally and externally.
- No time limit.
- Does not prohibit independent development.
Trade Secrets!

- Coca-Cola
- Bisquick
- Cheerios
- Chemical processes (in many industries)
- Perfumes, cosmetics
- Any kind of “know how” that is not publicly available.
## INTELLECTUAL PROPERTY AT A GLANCE


<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>UTILITY PATENT</th>
<th>DESIGN PATENT</th>
<th>TRADEMARK</th>
<th>COPYRIGHT</th>
<th>TRADE SECRETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is protected</td>
<td>Functional aspects (what it does)</td>
<td>Appearance of article of manufacture (how it looks)</td>
<td>Words, names, logos</td>
<td>Expression in literary, musical &amp; pictorial works of authorship</td>
<td>Confidential information</td>
</tr>
<tr>
<td>Rights granted</td>
<td>Exclude from making, using or selling</td>
<td>Exclude from making, using or selling</td>
<td>Exclusive use</td>
<td>Prevent copying</td>
<td>Exclusive use</td>
</tr>
<tr>
<td>Criteria</td>
<td>New, useful and not obvious</td>
<td>New and not obvious</td>
<td>Distinctive</td>
<td>Original</td>
<td>Confidential</td>
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<tr>
<td>How obtain rights</td>
<td>Issuance of patent</td>
<td>Issuance of patent</td>
<td>(1) Use (2) Registration</td>
<td>(1) Fixed in tangible medium (2) Registration</td>
<td>Creation</td>
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<tr>
<td>Term</td>
<td>20 years from filing</td>
<td>14 years from issue date</td>
<td>(1) Unlimited (2) 10 years</td>
<td>75 yrs. from publication (work for hire)</td>
<td>Unlimited</td>
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<tr>
<td>Renewable</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
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<tr>
<td>Test of Infringement</td>
<td>Claim language</td>
<td>Substantial similarity in appearance</td>
<td>Likelihood of confusion</td>
<td>Substantial similarity</td>
<td>Use</td>
</tr>
<tr>
<td>No protection against</td>
<td>Sale of prior art</td>
<td>Sale of prior art</td>
<td>Same name for very different goods or services</td>
<td>Independent creation, or use of preexisting material</td>
<td>Independent creation or reverse engineering</td>
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The UIC Commercialization Model

The vision for Innovate@UIC

[Diagram of the UIC Commercialization Model]

- Work must be original
- Work must be created by an author
- Work must be fixed in a tangible medium of expression
Impact 2019

- [https://otm.uic.edu/about/fy19-impact-report/](https://otm.uic.edu/about/fy19-impact-report/)
- $44 million dollars in revenue
- 200 disclosures
- 113 US patents filed
- 27 patents issued
- 43 Licenses and Options
- 23 SBIR/STTR Awards
- $8.8 Million in SBIR/STTR funding
- 3 New start-ups