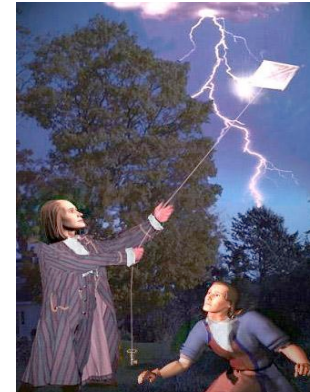


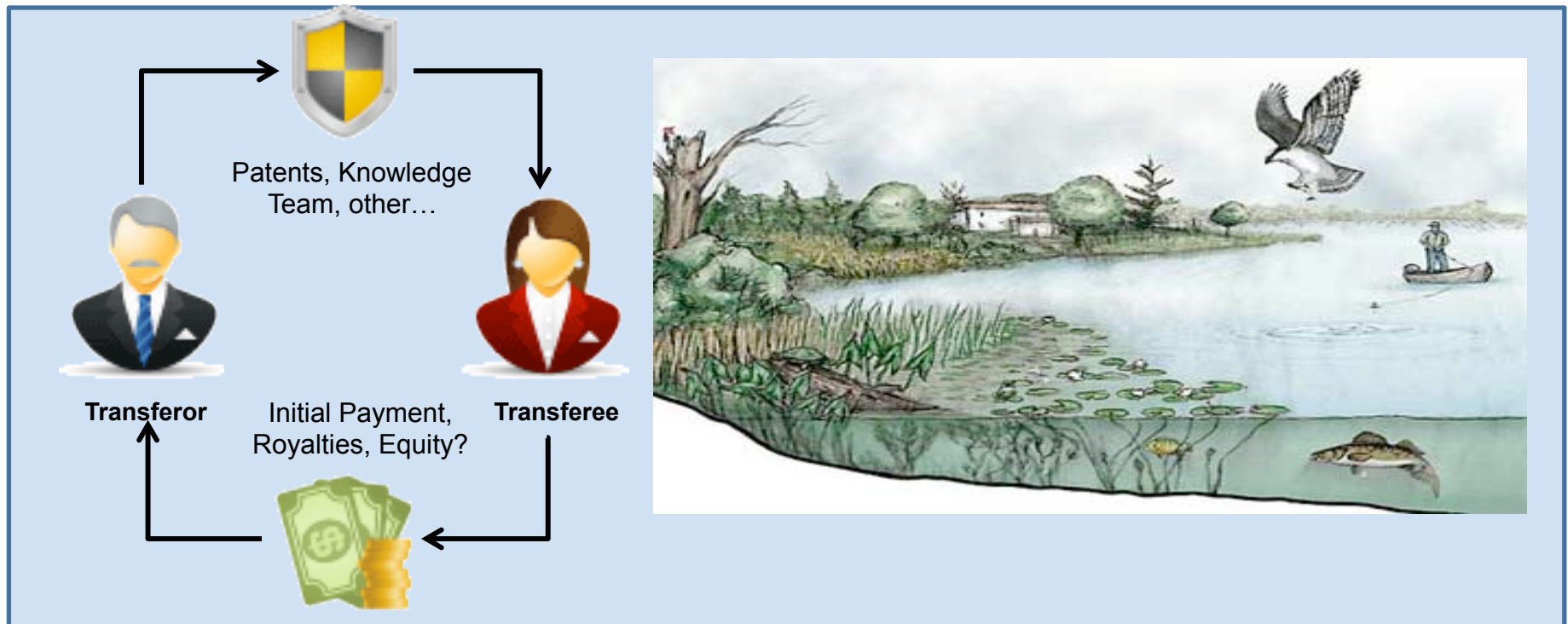


Benjamin Franklin
may have discovered
electricity,



but it was the man who invented
the meter who made **the money.**

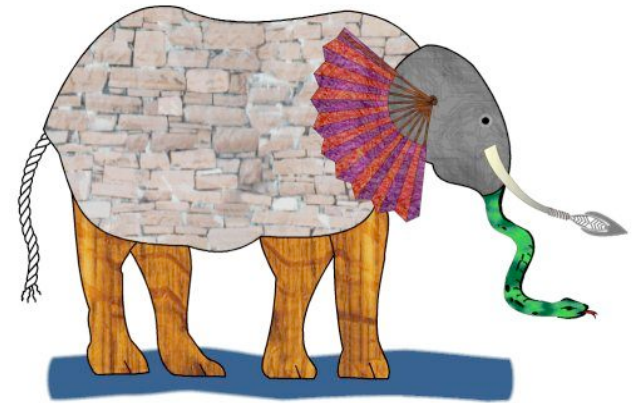
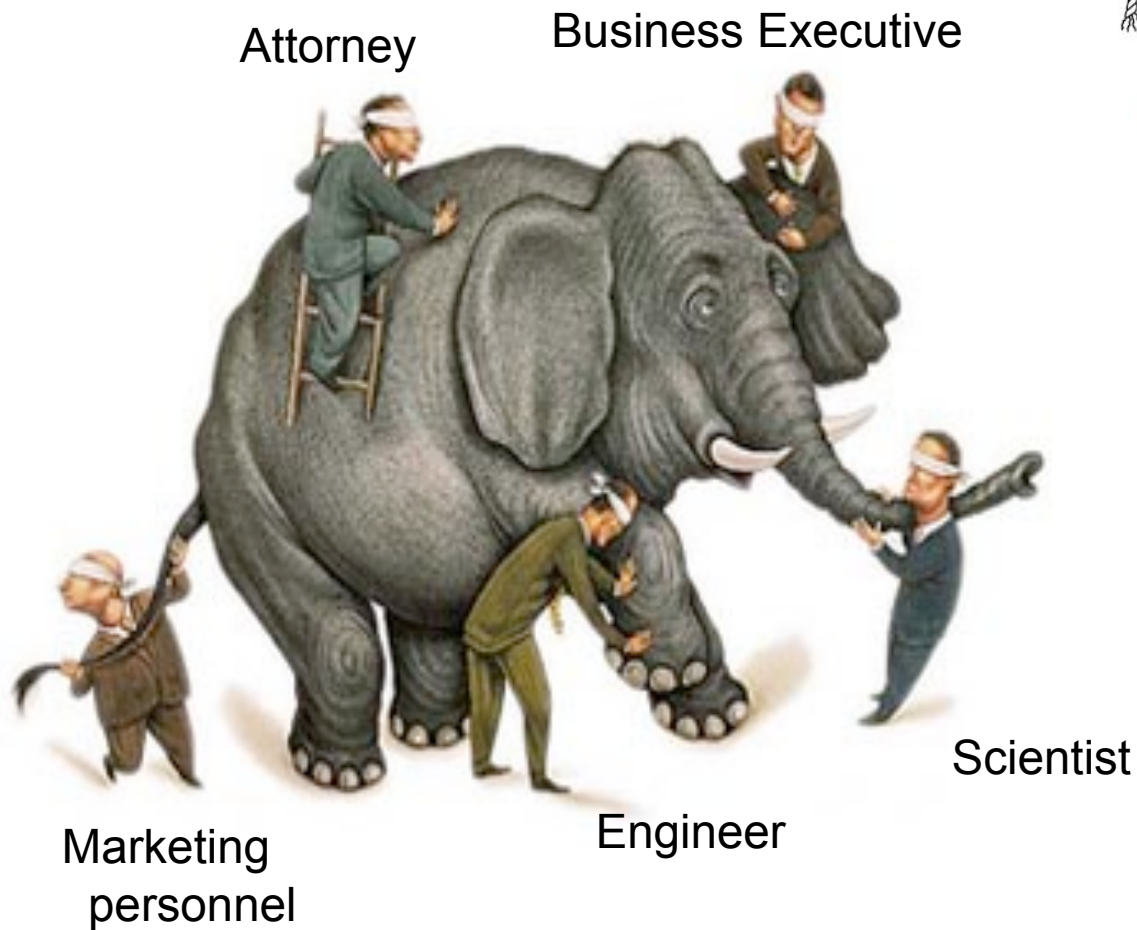




The Technology Transfer Ecosystem: Ground Realities

Srinivasan Parthiban

What is Technology?



Innovation Ecosystem: Enabling Organizations/Societies

Before Patenting

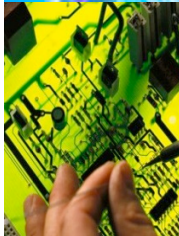
Discovery



Several Professional Societies in the following disciplines and much more niche areas.



Chemistry
Biotechnology
Pharmaceutics



Physics
Medical Devices
Electrical
Electronics



Mechanical
Consumer Products
Etc...

During Patenting

Prosecution



PATENT INFORMATION USERS GROUP, INC.
The International Society for Patent Information

After Patenting

Business



The Association of
University Technology
Managers



association of
independent
information
professionals



Robert C. Byrd
National Technology Transfer Center
at Wheeling Jesuit University



Bayh-Dole Act Signed into law on Dec 12, 1980, effective in July 1981



Birch Bayh

Bob Dole

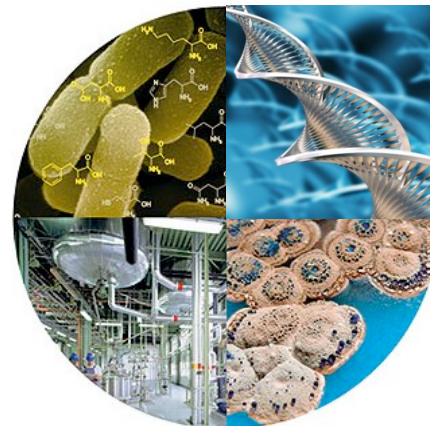


1980

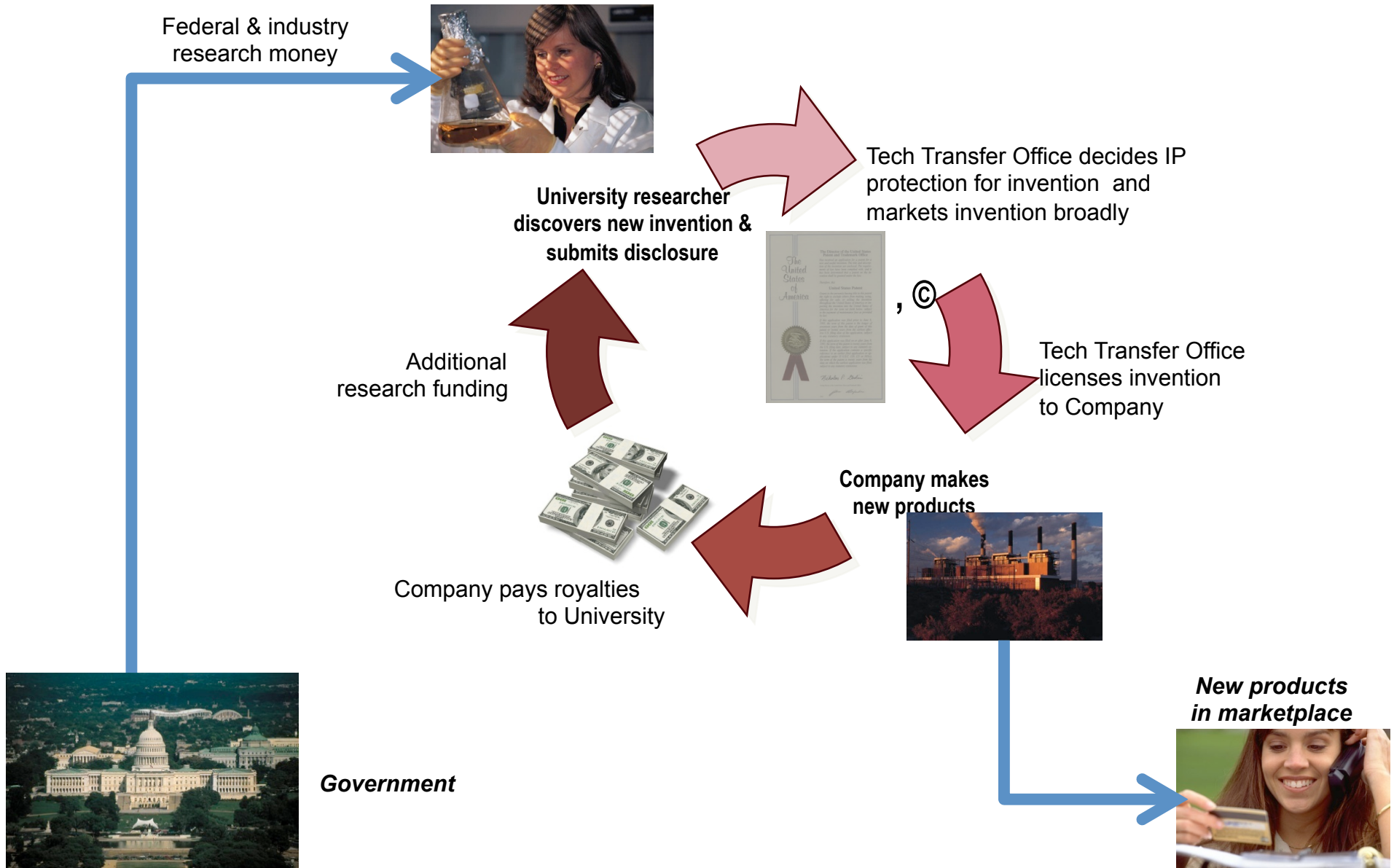
Cohen and Boyer invented their recombinant DNA technology. With funding from the NIH. The patent issued on 2 December 1980, shortly after the passage of Bayh-Dole.

1980

The Supreme Court decides in *Diamond vs. Chakrabarty* that anything made by “the hand of man,” including biotechnology-modified organisms, is patentable. The decision helps open the floodgates to a wave of investment that includes the first biotech IPOs.



Licensing: Inventions to New Products



Transaction Process



Business Plan



Marketing Materials



Approach Transferee Candidates
Directly or through intermediaries



Presentations, Demos, Q&A



Terms Negotiated



Term Sheet Agreed



Due Diligence Process



Final Closing



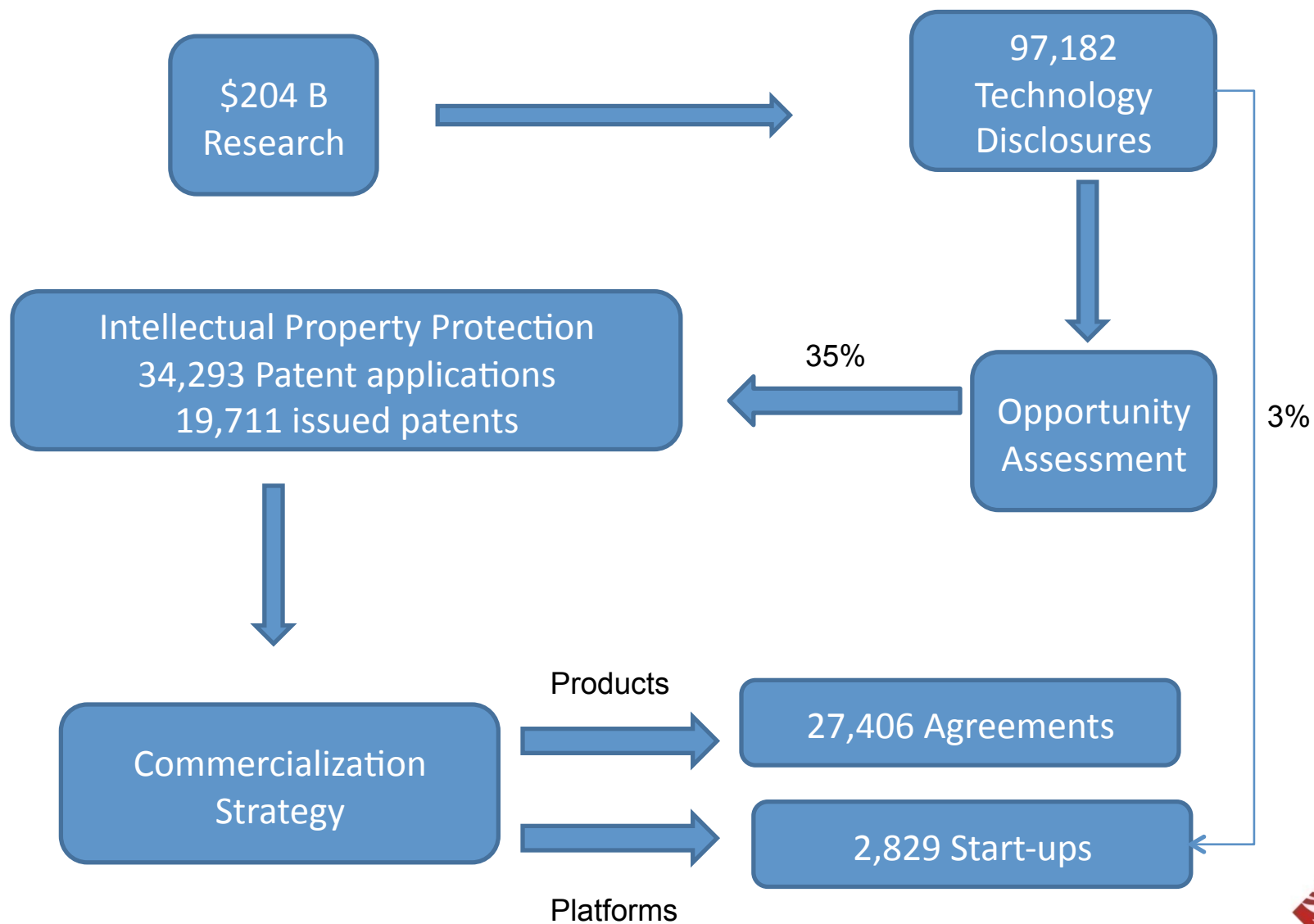
Tech Transfer Takes Place

Key Negotiation Points

- Scope of the License
- Initial License Fee
- Ongoing Royalty Payments
- Reporting & Audit Rights
- Terms of the License
- The Nature and structure of Commercialization Vehicle
 - Equity shares
 - Board of directors
 - Management team
 - Technical team



University Productivity and Licensing to Companies: 1991-2000



Who Owns My Invention?

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” (35 U.S.C. 101)

Inventorship is a strict legal determination – do not add inventors as a ‘courtesy’.



Michael Jackson - The Secret to his Leaning/Gravity Defying Dance

Granted in 1993 to Jackson and two partners by the U.S. Patent and Trade Office, patent No. 5,255,452 covers a "system for allowing a shoe wearer to lean forwardly beyond his center of gravity by virtue of wearing a specially designed pair of shoes."

The patent ended in 2005, though, after a government fee was not paid.



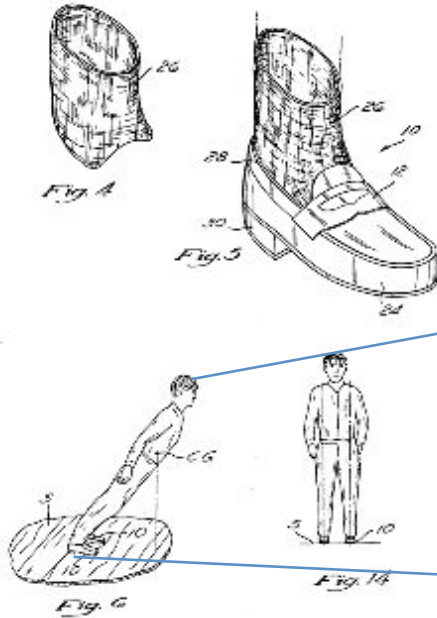
US005255452A

United States Patent [19]

Jackson et al.

[11] Patent Number: 5,255,452

[45] Date of Patent: Oct. 26, 1993



[54] METHOD AND MEANS FOR CREATING ANTI-GRAVITY ILLUSION

[75] Inventors: Michael J. Jackson, Los Angeles, Michael L. Bush; Dennis Tompkins, both of Hollywood, Calif.

[73] Assignee: Triumph International, Inc., Los Angeles, Calif.

[21] Appl. No.: 905,479

[22] Filed: Jun. 29, 1992

[51] Int. Cl.⁵ A43B 5/00; A43B 3/00

[52] U.S. Cl. 36/113; 36/1; 36/136; 36/80; 36/132

[58] Field of Search 36/1, 80, 103, 113, 36/114, 131, 132, 136; 482/70, 71, 105

[56] References Cited

U.S. PATENT DOCUMENTS

1,059,284	4/1913	Dennis	36/114
2,114,790	4/1938	Venables	36/132
2,473,099	6/1949	Hatch	36/1

3,88
4,44
4,53
4,64
4,76
4,88
5,04

Primary
Assistant
Attorney,

[57]

A system beyond specially a hitch surface. which can be thereby engaging with the hitch member.



13 Claims, 4 Drawing Sheets



Jackson's 'Smooth' leaning move really was patented

A Relevant Case for India from France

Dr. Michel Puech
Ophthalmologist
Intern
LIP laboratory
(Laboratory of parametric imagery)



Research Topic: Improvements in examining the eye by Means of high-frequency echography apparatus.
Given problem was to apply to the front part of the eye
Finding: Not only the front part of the eye, also for the rear part of the eye.
Michel Puech filed a patent for the rear segment of the eye.

CASE: Inventorship and Ownership CNRS vs Michel



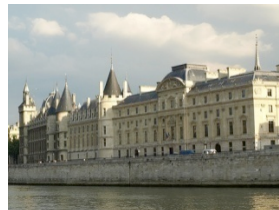
District Court

Dismissed the case and ordered CNRS
To pay Euro 155,000 for improper pressure and abuse



Paris Court of Appeal

Michel was the inventor
But give CNRS the ownership



Court of Cassation, Paris

(the highest court of appeal in France,
which has power to quash (Casser) or reverse the decisions
of the inferior courts)

Michel was the inventor and the only owner
He is not an employee or a public official



Sharing of Revenue from Intellectual Property

25% rule

**Profits should be split 75% / 25%
(licensee/Licensor)**

Example:

License and application for a widget

Widget is sold for \$200

Profit is \$30

25% of \$30 = \$7.50

~3.75% Royalty ($3.75\% * \$200 = \7.50)

Annual Net Income	Inventors' Share	Inventors' Laboratory	Inventors' Department	School	University
First \$100K	35	30	23*	10	2

* Department and School' share will be swapped based on who pays patent costs



Returns and Economic Development—the year 2004

- 3680 new US patents in 2004
- >4000 licenses, of which 658 were to new start-up companies

- Research budget was over **USD 41 B**
- Royalty revenue was **USD 1.4 B**

- Tech Transfer is revenue is only **3.4%** of the research volume that generated it
- ~ **400-500,000** jobs in US are the direct result of university licensing
- **each of these ‘direct’ jobs** results in economic flow from salaries that result in two or three jobs **being created**.

- The financial findings would indicate that technology transfer should not be looked upon primarily as a potential source of significant funding for a university, since few universities can hope to get lucky with a blockbuster patents. *Instead tech transfer needs to be seen as long-term investment in societal impact, through innovative new products, technology that increases economic competitiveness, and creation of new industries and new jobs.*





“The guy who invented the first wheel was an idiot.

The guy who invented the other three, HE was a genius.”

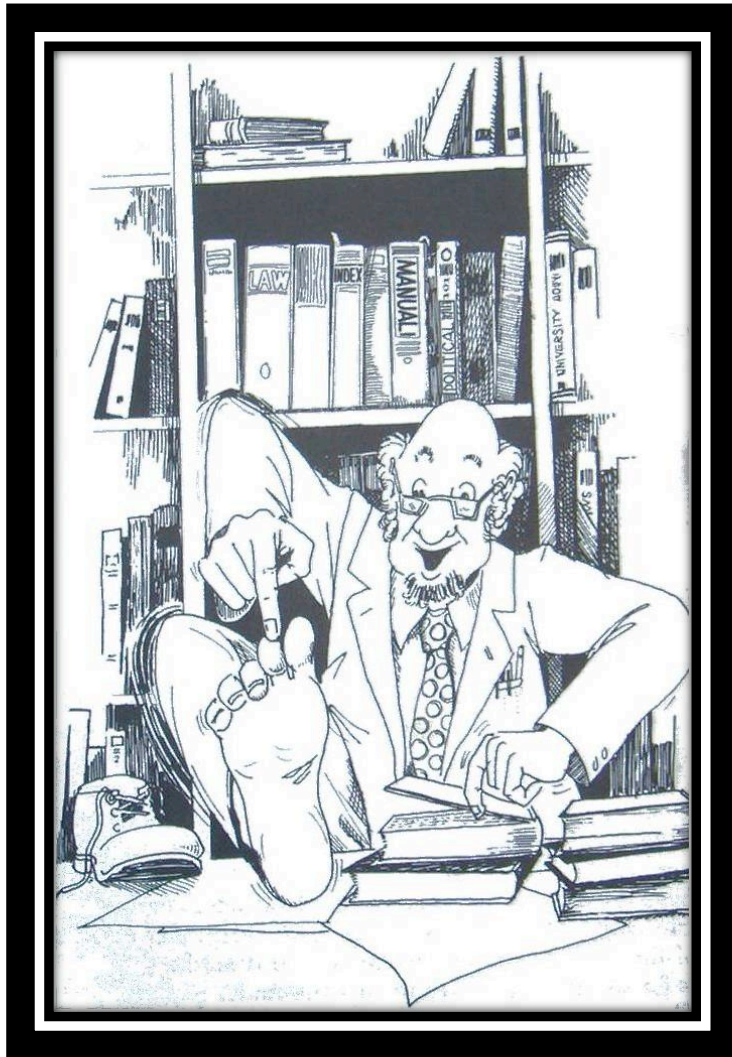


Exemplars in Technology Transfer

- Alfred University
- Brigham Young University
- Florida Agricultural and Mechanical University
- Iowa State University
- Montana State University
- Rensselaer Polytechnic Institute
- Springfield Technical Community College
- University of Akron
- University of Central Florida
- University of North Carolina at Charlotte



and ~~Publish Or Perish~~



Number of Publication Per Year	
1	Minimum required
2-3	Quite Acceptable
4	Auspicious
7 and 11	Highly regarded
> 11	You are publishing merely for the sake of publishing

Even the president of the University can count.



The Language of Business



THE WORLD IS
GOING TO CHANGE
WITH OR WITHOUT
YOU...

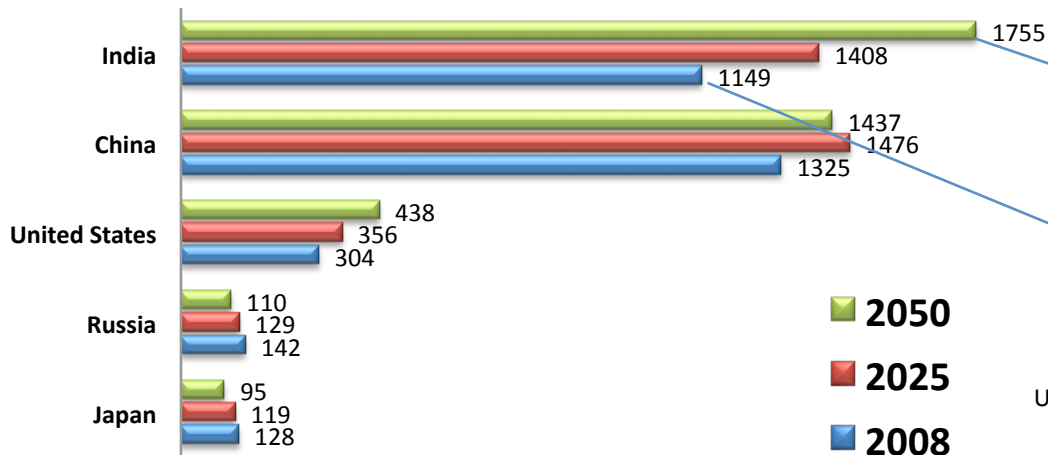
GET READY!



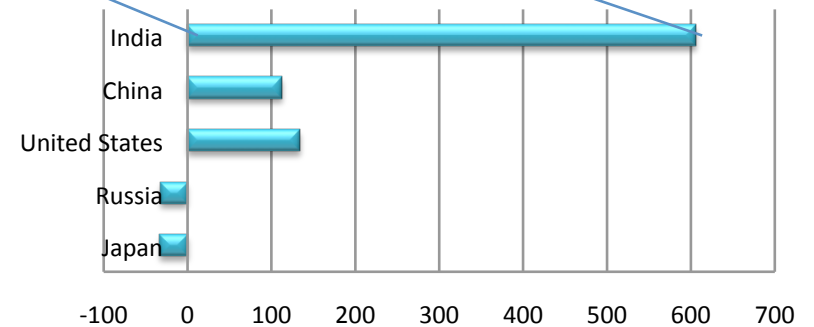


Population Growth by Country

Population in Millions



Population Gain/Loss in Millions
2008-2050



	Japan	Russia	United States	China	India
Series1	-33	-32	134	112	606

Source: Population Reference Bureau



THANK YOU VERY MUCH

