

Intellectual Property: What it is and how to protect it

“What is the work of genius the first time is the work of a tinsmith soon thereafter.”

The Sum of all Fears

Emory Innovation Brown
Bag Lunch Series
Oct. 7, 2015
Mike Wach

Classes of Intellectual Property

- ❖ Trade Dress
- ❖ Trademark
- ❖ Copyright
- ❖ Trade Secret
- ❖ Patent
 - Plant Patent
 - Design Patent (aesthetics)
 - Utility Patent
 - Process
 - Machine
 - Manufacture
 - Composition of Matter



The invention, as claimed, must be

❖ Novel

❖ Not Obvious

❖ No Abstract Ideas

❖ No Laws of Nature

Patent Eligibility - Recent Supreme Court Decisions

Molecular Pathology v. Myriad Genetics, Inc.

“genes and the information they encode are not patent eligible under §101 simply because they have been isolated from the surrounding genetic material.”

Mayo Collaborative Services v. Prometheus Laboratories

Patent claims to “relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage ... will prove ineffective or cause harm” are not patent eligible because they generally recite a law of nature, and the addition of certain claim steps directed to “well understood, routine, conventional activity” does not change that conclusion.

Patent Eligibility of Nature-Based Innovations

| Claimed Invention | Eligibility |
|--|-------------|
| 1) Gunpowder comprising 3 naturally occurring substances | Yes |
| 2) Beverage comprising pomelo juice and a preservative | Yes |
| 3a) Purified acid from a rain forest tree useful for cancer treatment | No |
| 3b) Chemically modified version of the purified acid | Yes |
| 3c) The purified acid encapsulated in a natural polymer material | Yes |
| 3d) Method of administering an effective amount of the purified acid to treat colon cancer | Yes |

Patent Eligibility of Nature-Based Innovations

| Claimed Invention | Eligibility |
|--|-------------|
| 4a) An antibiotic that is produced by a naturally occurring bacteria | No |
| 4b) A form of the antibiotic made by genetically modified yeast | Yes |
| 5a) An isolated manmade human pacemaker cell | No |
| 5b) A container filled with the isolated man-made human pacemaker cells (contrast with 3c) | No |
| 5c) The isolated man-made human pacemaker cell with expression of a marker indicating increased oxygen utilization (a non-natural phenotype) | Yes |

Patents Provide Exclusionary Rights (a theoretical monopoly)



Wright Bros. Claim

A system comprising:

- a frame extending along an axis;

- a pair of wings extending from the frame perpendicular to the axis;

- a tail extending vertically from the frame; and

- a drive system comprising a tank for fuel and an engine that creates forward drive along the axis by burning the fuel.

Patents Do Not Convey Rights to Practice!



Chuck Yeager Claim

A supersonic aircraft comprising:

a fuselage;

exactly two wings and an upright tail extending from the fuselage; and

a four-chamber rocket engine that burns ethyl alcohol.

Continuation Application Strategy



Competitive Threat

1st Patent Issues
Steering Protected

2nd Patent Issues
Wings Protected

3rd Patent
Issues with
Corsair
infringement



1st Application Filed

- Rich teaching
- Claims on steering

2nd App. Filed

- Same teaching
- Claims on wings

3rd App. Filed

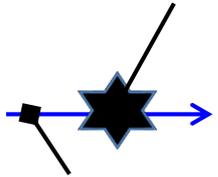
- Same teaching
- Claims drafted to read on Corsair

4th App. Filed



Enforcement - Assertion

3rd Patent
Issues



4th App.
Filed



Wright Bros. Claim

A system comprising:

a frame extending along an axis;

a pair of wings extending from the frame perpendicular to the axis;

a tail extending vertically from the frame; and

a drive system comprising a tank for fuel and an engine that creates forward drive along the axis by burning the fuel.



Corsair: Your patent is invalid,...

- 1) you did not follow an arcane rule;**
- 2) you tricked the Patent Office into awarding you the patent;**
- 3) you did not disclose an obscure publication;**
- 4) your email said that your patent covers “x” and we don’t do “x”**
- 5) it’s obvious; and**
- 6) the claims are not enabled and thus are too broad.**

Moreover, we don’t infringe because “forward drive” should be interpreted as pushing from the rear; we pull from the front.

A system comprising:

... a drive system comprising a tank for fuel and an *engine that creates forward drive along the axis by burning the fuel.*

Enforcement - Financing

Conservative litigation cost = \$3M

Financier required return = \$30M (10X = venture capital model)

Assume

3% royalty rate

33% apportionment

1% of sales revenue owed

**Infringing sales required to justify litigation funding = \$3B
(before paying patent holder)**

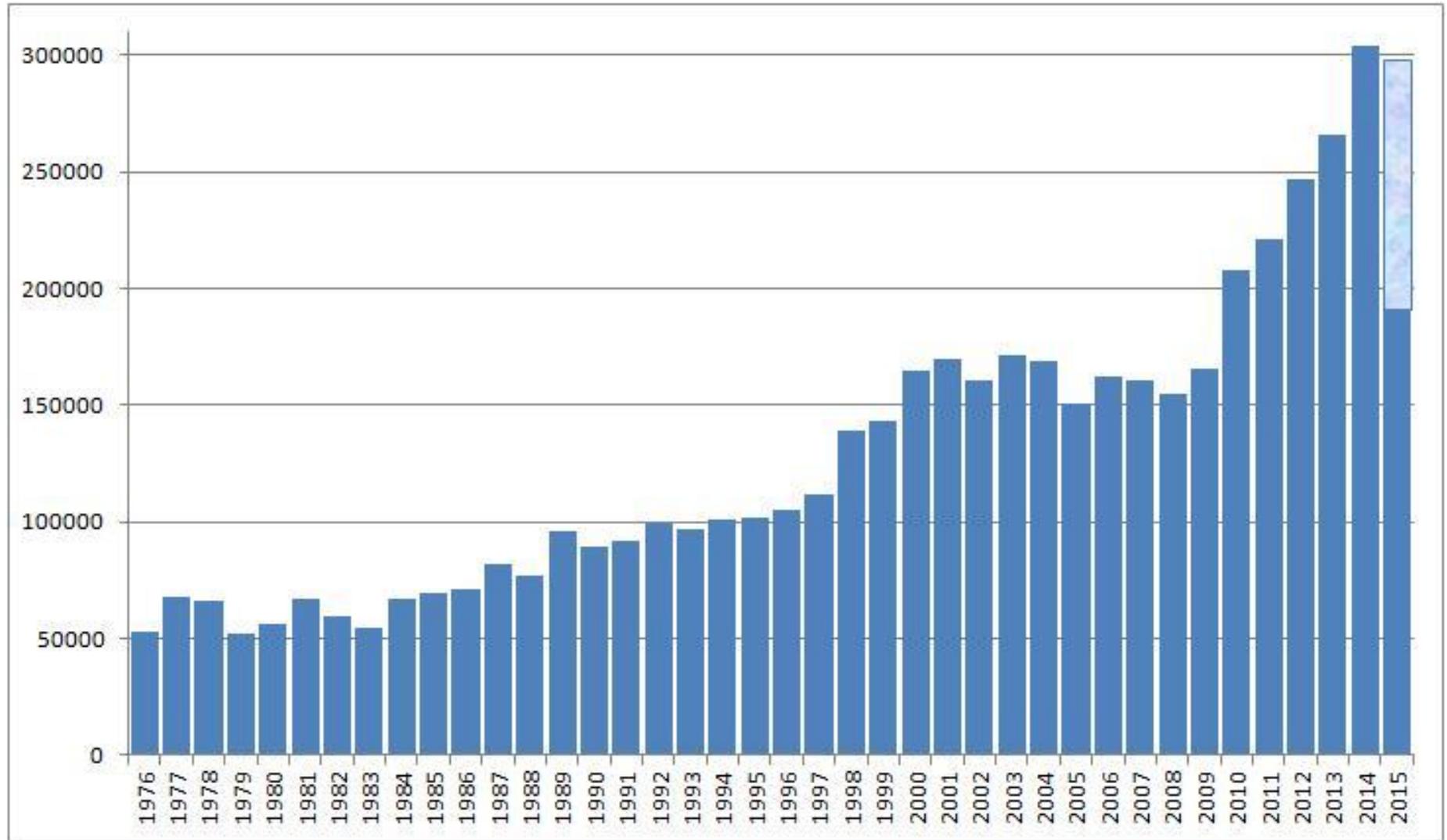
“Patents should spur bursts of innovation; instead, they are used to lock in incumbents’ advantages.”

The Economist; Aug. 8, 2015; *Time to Fix Patents*.

“Even if [Samsung] loses in court (again) to Apple over idea-theft charges, it has still won the war: 30% smartphone market share to Apple’s 16%.”

Forbes; May 26, 2014; p48; sidebar.

US Patents Issued



US Supreme Court:

“The specification and claims of a patent, particularly if the invention be at all complicated, constitute one of the most difficult legal instruments to draw with accuracy ...”

Thank You