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Fall 2012

Rochelle Dreyfuss – Patent Law – Attack Outline

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Issue: Patent filed, not yet published under § 122(b), not yet granted

* Must ask whether it will issue? 🡪 This raises question of validity 🡪 analyze validity
* Not § 102(e) art until ***after*** it is published

Someone conducts research or studies that may anticipate. Otherwise someone is seemingly using an anticipating invention in secret

* Ask if it is sufficiently public. 🡪 § 102(a)/(b)
* If it is the same invention, is the use secret? 🡪 § 102(g)/(b)
* Foreign prior art under the old act must be a patent or a publication
  + Must ask whether something is *actually* a publication

If given claims

* Focus on terms/definitions 🡪 Unclear? Definiteness
* **Remember!** 🡪 You can always strike inadequate claims or elements of claims in applications

Generic/Competitor has been selling the product already?

* Is it prior use? If not given information, do not assume it isn’t (§ 102(a)/(g))
* Must ask about the timing!

Other possible inventor?

* § 111 oath of applicant
* § 102(f) derivation
* Inequitable conduct

Co-inventor?

* § 116 – work together? Adequately together?
* *Burroughs* – Contribute to conception?

Doctrine of Equivalents

* Look at
  + Wording of the claims – Does it foreclose equivalents?
  + Prosecution history 🡪 estoppel?
  + So obvious, it should have been included vs. claiming every embodiment

Did patentee use a prior patented product/process to develop their patented one?

* Experimental use (*Madey/Integra*)? 🡪 Don’t forget Hatch-Waxmann 🡪 *Integra* implies you cannot do further development, you can only copy for purposes of FDA
* Reverse DoE?
* If it is a product applicant is using, is the product limited by first sale?
  + Limitation on the product? Notice?

*KSR*

* No TSM test – but ask whether you need it?
* Obvious to try?
* Market pressure – contemporaneous change in regulation or technology?
* Predictable result?
* Don’t forget secondary considerations/teaching away

Induced/contributory?

* Must first find direct infringement!

Policy Questions

* Focus on the question, not the cases
  + Make a super quick outline of topics
* Let the cases fill in the blanks
* Stick to themes
  + Incentive to innovate
  + Cost of innovation
  + Transaction costs
  + Rush to trade secrecy? Cost to public?
* Given a new law?
  + Pay attention to terms in the statute
  + Brings us in line with the rest of the world? Protectionism?
  + Protects trade secret holders from independent discovery and patent?
  + Non-informing public use?

# PATENT LAW VS. TRADE SECRET

## Alternatives to the Patent System

* + 1. Trademark – *Southeast Foam* – “Durafoam” – Make the product a household name
    2. Improvements – Improve processes and remain ahead of competition
    3. Corner the input market – Antitrust concerns
    4. Buy out competitors

## Trade Secret

* + 1. Misappropriation– *Dionne v. Southeast Foam Converting & Packaging* (VA 1990)
       1. Disclosure – Must control disclosure and maintain secrecy through agreement
          1. Non-Disclosure Agreements
          2. Non-Compete Covenants
          3. Limit Access to Premesis
       2. Requirement – Must derive economic value from something *not generally known* or *readily attainable*
       3. Infringement – Misappropriation under circumstances that Δ knows are not ok
          1. DOESN’T INCLUDE independent discovery, or reverse engineering
       4. Remedy – Injunction until no longer a trade secret
       5. Transferability – Arrow’s disclosure paradox – Can’t sell without first revealing

## Policy

### Patents

* + - 1. *Quid pro quo* – Releases information to the public
      2. Solves disclosure paradox
      3. Signals business acumen
      4. 20y term (17y prior to TRIPS – June 8, 1985)

### Trade Secret

* + - 1. Last as long as secret is maintained
      2. Inventorship – protects non-patentable subject matter
      3. Less costly than patent – Dead weight/consumer surplus from patent monopoly

# PATENT DRAFTING

* 1. Anatomy of Patent – Filing/issue dates, Inventor/assignee, Field of search/references, Title/abstract/drawings, Figures
     1. **Expiration** – 20y term from filing (17y from issue prior to TRIPS – June 8, 1985)
        1. Submarine patent – Stringing on prosecution then sue everyone once patent issues
           1. Measuring from filing alleviates this problem
     2. **Disclosure/specification** - § 112 – Enablement, Written description, Claims
     3. **Claims** – Distinguish subject matter regarded as the invention

## Claiming

* + 1. **Types**
       1. Dependent/Independent
       2. Means-plus-function – “Means for doing X” – Limited by specification
       3. Jepson format – “Wherein the improvement consists of…”
    2. **Language**
       1. Preamble – Identify the kind of invention – “A recyclable, insulating container…”
       2. Transition
          1. Comprising – Open – “Comprising A, B, and C” 🡪 Includes A – D
          2. Consisting of – Closed – “Consisting of A, B, and C” 🡪 Doesn’t include A–D
          3. Consisting essentially of – A – D *only if* element D doesn’t make it a different invention 🡪 A – C ≈ A – D
       3. Body – Lists all elements of the invention and describes how they interact

## Prosecution

* + 1. 2 back-and-forth with PTO, after final rejection pay new fee (§ 120 – continuation)
    2. **Continuation in Part** – Make changes to disclosure, can result in new filing date
    3. **Divisional** – Breaks application into two if claiming two inventions (§ 121)
    4. **Provisional** – Sets priority date (§ 119), doesn’t count for patent term (§ 154(a)(3))
    5. **Publishing** - § 122(b) – patents filed over 18mo are published (some exceptions)
    6. **Interference** – Two applications *claim* the same thing
    7. **Term Extension** – FDA Delays (§ 156), PTO delays
    8. **America Invents Act**
       1. Re-examination – *Ex parte* or *Inter partes* – IP has estoppel after proceedings
       2. § 301 – PEER to Patent – Crowd source prior art search
       3. § 321 – Post Grant Review – Anyone can trigger re-exam for 9mo
  1. Litigation – Patents are assumed valid (§ 282), challenger bears burden of proof (C&C)

## TRIPPS and PCT

* + 1. **TRIPPS** – (§ 111(b))provisional application, priority is first filed country, one application for all member countries – uniform nonobviousness, inventive step, utility, etc. – 18mo publication timeline, also changed patent term 20y from filing
    2. **PCT** – Choose country for prior art search, apply for patent in each member country

# SUBJECT MATTER ELIGIBILITY – § 101

**Themes**

* Cannot preempt use of entire algorithm/law 🡪 Scope
* SC wants less formalism, understand inventive concept 🡪 is the gatekeeper to patent law (*Mayo*, *Gottschalk*, *Bilski*)
* FC wants easier administration, simpler litigation; greater clarity 🡪 should be a low bar, simple checkpoint (*AMP*, *Alappat*)
  1. **Statute**
     1. § 101 – 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.
     2. **Judicial Limitations** – Natural Phenomena (*Funk Brothers*/*Myriad*), Laws of Nature (*Mayo*), Abstract Ideas (*Bilski*/*Flook*)
  2. **Tests**
     1. **Mental Steps** – Outcome can be determined through mental comparison or calc
        1. *Halliburton v. Walker* – Rock in a well and listen to determine obstruction depth
        2. *Gottschalk v. Benson* – Ended mental steps
           1. *But see Myriad* – If claims are precisely how a human would do it 🡪 MS
     2. **Printed Matter** – If the whole invention is just writing something down
        1. *Transfer ticket case* – Doctrine turns on functional/non-functional printed matter
     3. **Machine or Transformation** – Tie the concept within definite bounds (machine)
        1. *Bilski* – Not dispositive, but a useful clue
     4. **Inventive Concept** – Inventor must add an inventive concept to the natural law that goes beyond conventional steps or steps necessarily defined by the law (*Mayo*)
  3. **Policy**
     1. **Over-Breadth** – Attempt to claim phenomenon to foreclose further exploitation in the field – monopolize upstream research or natural principal (*Funk Brothers*/*Morse*)
        1. Claiming too high on the pyramid
     2. **Anti-Backsliding** – Natural properties, etc. are part of the art, can’t remove from public use (*Cruciferous Sprout*)
     3. **Artificial Limitation** – Limiting application to a particular field doesn’t create eligible subject matter (*Bilski*/*Flook*)
     4. **Business Method Field Restriction** (*See AIA §§ 33, 14* – no patents for a human organism, no strategy for reducing taxes)
        1. § 273(b) gives first inventor defense for business methods (at the time) 🡪 defense contemplates existence of BM patents
        2. § 273(b) was implemented solely to limit fallout from *State Street*
           1. BM are hard to prove infringement, potential industry crushing advantages
  4. **Historical**

*Morse*

SC 1854

*Telephone*

SC 1888

* + 1. *O’Reilly v. Morse* – Invalidated broad claim using electricity to print at any distance
    2. *Telephone Cases* – Valid claim sending sounds causing electrical undulations, similar to vibrations in air (*See also Neilson* – Patentable blast furnace)
  1. **Biotechnology**
     1. *Parke-Davis* – Valid claim for purified adrenaline as base not salt, natural extracts ok

*Parke*

SDNY 1912

* + 1. *Funk Brothers* (SC 1948) – Invalid patent for non-mutually inhibiting natural bacteria
       1. Attempt to claim property of non-inhibition 🡪 could not ID strains (enablement)
    2. *In re Cruciferous Sprout* – Anti-cancer property of broccoli sprout invalid
    3. *Chakrabarty* (SC 1980) – Valid bacteria transformed with plasmids to break down oil
       1. No field restriction on living things, and transformed bacteria are non-natural
       2. PPA/PVPA – *Expressio unius* vs. Plants as special case (failure of §112 writ desc)
    4. *Mayo v. Prometheus* (Laws of nature) (SC 2012)
       1. Claims: Method for treating with thiopurines – Administer, measure, determine
       2. Test
          1. Identify law of nature
          2. Assess claims to find inventive concept

No routine or conventional, no steps necessarily defined by the law

* + - * 1. What has inventor invented? Go beyond finding audience and saying “apply”
      1. *See also Metabolite* – Invalid diagnostic to measure B-12 deficiency through folate in blood 🡪 Mere correlation insufficient – note, no intervention as in *Mayo*

MOT test – Ask whether the algorithm results in something tangible 🡪 *Allapat* – results in display of info, are you just converting info from one form to another?

* + 1. *AMP v. Myriad* (FC 2012)
       1. Claims: cDNA, diagnostic to detect gene, method of screening therapeutic drugs
       2. Lourie (Majority)
          1. *Mayo* does not apply to composition, only law of nature/method
          2. Cleave the gene from chromosome, new product not in nature (*Parke-Davis*)
          3. Chromosome 🡪 RNA 🡪 mRNA 🡪 cDNA
       3. Moore (Concurrence) – *Mayo* applies, but cDNA valid 🡪 new utility (primers)
       4. Bryson (Dissent) – focus on over-breadth/necessarily defined product of nature
          1. Information in the DNA is important, not the particular bonds
          2. Patent preempts any competitive commercialization (no second opinions)
          3. Claims use variable regions “xxxx” that can insert any sequence
  1. **Business Methods**
     1. *State Street* – No field restriction on business methods
     2. *Bilski* (SC 2010) – Invalid patent for hedging risk in financial markets
        1. Invalid attempt to patent concept of hedging risk and application to energy market
        2. Simply applying the method to computer doesn’t create a new invention
  2. **Computer**
     1. *Gottschalk v. Benson* – Invalid claims for converting from binary encoded to binary
        1. Test: ID algorithm, determine if claim preempts all use of algorithm
        2. Holding: Invalid since only practical use of the algorithm is in a computer

*Benson*

SC 1972

*Deihr*

SC 1981

* + 1. *Parker v. Flook* – Invalid patent using equation to adjust alarm limits 🡪 No specific process or how variables are selected 🡪 “limited” to petroleum industry
    2. *Deihr* – Valid patent for monitoring rubber curing to optimally cure rubber
    3. *Alappat* – “New Machine” – programmable machine is programmed 🡪 new machine
    4. *Cybersource v. Retail Decisions* – Invalid patent for detecting CC fraud by monitoring IP address and determining # of cards used by that address
  1. **Semiconductor Chip Act** – 10y term, originality vs. obviousness, ed/academ exception.

# UTILITY

**Themes**

Beneficial utility has fallen to the way-side, although TRIPS maintains exceptions for countries that want to include it

Special utility/operability are about (1) QPQ – provide and describe benefit for the public, (2) Capable of doing what patentee claims, (3) Cut down on “fishing expedition” (*See especially Fisher* [non-specific uses], *Brenner* [use for related compound in unpredictable art])

* 1. **Statute**
     1. Originates in “utility” from § 101, and “enable” from § 112
  2. Test – At *date of application* unless considering an interference
     1. Beneficial Utility – Sole purpose cannot be to deceive
        1. Moral Principal Doctrine – Sole purpose cannot be to deceive (TRIPS exclusions)
           1. Generally deceptive trade practice is left to enforcement agencies now
        2. *Compare Du Bon* (Spotted tobacco – sole purpose to deceive), *Juicy Whip* (post imitates pre-mix dispenser – safer, but imitates more desirable machine)
     2. Special Utility – Must have a specific and substantial use
        1. Must be specific to claimed invention
           1. *Brenner* – cites utility of related steroid but steroids are unpredictable – no util
        2. Cannot claim non-specific uses applicable to whole field of invention
           1. *Fisher* – Claims several general uses for ESTs, none specific to claimed seqs
        3. Cannot claim throw away utility (PTO –feed genetically altered mice to snakes)
           1. PTO – Must have a substantial, real-world use
           2. Cannot simply cite hypothetical uses generic to the invention (*Fisher*)
        4. Experimental utility demonstration not in humans sufficient (*Brana* – murine)
     3. Operability – Must accomplish alleged utility (*Newman v. Quig* – perpetual motion)
        1. Burden on PTO, Patentee can rebut, commissioner can require a model (§114)
        2. Invention does not have to work well or be economically viable (*Brenner*)
        3. An inoperable patent will not satisfy enablement (§ 112)
        4. Research Tools – Research tools are ok, but utility must be specific
           1. *Fisher* – generic claim. *Brana* – demonstration in mouse model.
           2. Note: Microscope would be ok – utility as a tool in research for magnification
  3. **Policy**
     1. Possibly give product patent to first to discover, then blocking process patent for use
     2. Strong utility gives notice to infringers of metes and bounds of invention (*Brenner*)
        1. But strong utility may keep inventions secret longer til utility is discovered
     3. Bayh-Dole legislation gives incentives to universities to do research
        1. But pushes research away from less-patentable fundamental research (§ 101, etc.)
        2. Pushes research into exclusively commercializable products
     4. **Quid Pro Quo** – Part of the exchange for the monopoly is to provide a specific benefit to the public – Note, this doesn’t mean ALL uses of the product/process
        1. “Patent is not a hunting license” (*Brenner*/*Fisher*)
  4. **Cases**
     1. *Brenner v. Manson* (SC 1966)
        1. Invented new steroid, cited utility of structurally similar steroid
        2. No specific utility of this steroid demonstrated, and steroids are unpredictable
        3. Holding: Product must be shown useful to define metes and bounds of monopoly
        4. Reasoning
           1. Invention must provide identifiable benefit
           2. Does not have to be superior to existing products
           3. NOTE: Do not need to show ALL uses, metes and bounds are still indefinite
     2. Bayh-Dole Act
        1. Patent rights to private parties sponsored with public funds
        2. Mandatory, non-exclusive license to the US government
        3. Can license to private parties on exclusive/non-exclusive basis
        4. § 203 – March in rights of gov., if successful can require payback of profits
     3. *Juicy Whip, Inc. v. Orange Bang, Inc.* (FC 1999)
        1. Patent claiming post-mix dispenser to fool customers into thinking it is pre-mix
        2. Holding: Invention isn’t unpatentable simply because it can fool people
           1. NOTE: This dispenser was better because it was cleaner, less prone to bacteria
           2. Concern about deceptive trade practice is better handled by enforcement (FDA/FTC)
     4. *In re Fisher* (FC 2005)
        1. Claimed Expressed Sequence Tags (ESTs) from maize genome
        2. Asserted 7 uses for any EST to meet utility 🡪 not patentable, can’t cite general utility applicable to all inventions of this type
           1. Patentee did not identify the function of the underlying genes
        3. Dissent: ESTs have specific utility as research tools, amount of contribution should be measured through obviousness
        4. *See also* Moore concurrence from *Myriad*
           1. Primers have specific utility – BUT primers from BRCA cDNA detect BRCA 🡪 a known gene whose presence has specific and significant consequences
     5. *In re Brana* (FC 1995)
        1. PTO rejected patent on drug for lack of utility
        2. Demonstrated utility *in vivo* mouse tumor model and *in vitro* human tumor cells
        3. Holding: Tumor models are a specific disease that the drugs are effective against
           1. References questioning predictive value of murine models aren’t relevant
           2. No need to prove ultimate value in humans 🡪 job of the FDA

# DISCLOSURE

Must enable PHOSITA without undue experimentation

QPC 🡪 Patentee has a right to what they claim and foreclose anyone else from getting what they enable

* 1. **Statute**
     1. § 112 ¶1 – The specification shall contain a *written description* of the invention, and of the manner and process of making and using it, in such *full, clear concise, and exact terms as to enable any person skilled in the art* to which it pertains, or with which it is most nearly connected, to *make and use* the same, and shall set forth the *best mode* contemplates by the inventor or joint inventor of carrying out the invention
     2. § 112 ¶2 – The specification shall conclude with one or more claims particularly pointing out and *distinctly claiming* the subject matter which the inventor or a joint inventor regards as the invention
  2. Enablement – Question of law
     1. **Analysis** – Looking at claims in light of the specification (claims narrower than spec)
        1. **Rule** –Patent must teach PHOSITA how to make and use the invention without undue experimentation
           1. Burden on PTO/Challenger
        2. Undue Breadth – Claim must be commensurate with the scope of the invention
           1. Scope of claims must be less than scope of specification
        3. Undue Experimentation – Claim must enable PHOSITA to practice the invention without undue experimentation at time of filing (*Incandescent Lamp*)
           1. Claiming a genus, must enable the property held by all inventions within the genus (*Incandescent Lamp*)
           2. *Wand* Factors – Determine undue experimentation

Quantity of experimentation necessary (success rate)

Amount of direction or guidance presented

*Wands* – clear guidance, routine experiments

Presence or absence of working examples

Deposit to repository – Consider *what* is actually deposited 🡪 is this *all* antibodies for this target, or only *this* antibody (Explains *Wands* patentee arguments – wants all IgM, not just *this* IgM)

Prophetic Examples – *Future tense* prediction of the outcome of current experimentation, even if it turns out to be correct

*Purdue Pharma* – Invalidated past-tense prophetic example that was correct

Nature of the invention

State of the prior art

Relative skill of those in the art

Predictability or unpredictability of the art (#/success rate of examples)

Breadth of the claims (*Incandescent Lamp*)

* + 1. **Policy**

Note: Even though this is Q of Law, mostly FC attention, no SC involvement 🡪 more fact-bound and specific

* + - 1. Limit to speculation 🡪 can’t claim a research plan
      2. **Quid pro quo** – Public must be enabled to practice in exchange for monopoly
         1. Reward commiserate with contribution
      3. Foundational biotech: PCR, Gene Insertion tech, Monoclonals (all public domain)
      4. Enablement allows patentee to claim beyond what they have demonstrated limited by undue experimentation
      5. Incentives – If courts redraft overbroad claims, inventive is to claim broadly
    1. **Cases**
       1. *Incandescent Lamp Patent* (SC 1895)
          1. Sawyer and Man patent on fibrous lamp filaments – many not superior to prior art, would require substantial experimentation to determine best ones

NOTE: Did not understand the property making some superior

* + - * 1. Edison patent for specific fibrous bamboo filament – superior to old filaments
        2. Holding: Edison wins, S&M did not discover the quality common to fibrous textile materials distinguishing them from other filaments – Edison found parallel fibers, high resistance and small cellular structure in bamboo
      1. *In re Wands* (FC 1988)
         1. Claimed immunoassay methods for detecting Hep-B with IgM monoclonals
         2. Enablement requires demo how to *make and use* without *undue experiments*
         3. 6/10 fusion experiments result in 143 fusions – test 9, got 4 antibodies

Is this 4/143 or 4/9 – Hidden info? How to select which one?

* + - * 1. Newman Dissent: Wands must show data or authority that the result is reasonably predictable
      1. *Janssen Pharmaceutica v. Teva Pharms USA, Inc.* (FC 2009)
         1. Galanthamine (acetylcholinesterase inhibitor) to treat AD
         2. Enablement by citing to prior art

Papers using Gal. in animal models showing memory effects

No AD model

Papers using Gal. in humans demonstrating crosses BBB

* + - * 1. Enablement – Patentee in the process of animal model of AD experiment
        2. Problem: Patentee argued not obvious from prior art, but needed prior art to prove enablement
      1. *Purdue Pharma L.P. v. Endo Phams, Inc.*
         1. Patent on Oxycontin – Invalidated for using past-tense prophetic example

Does not matter that prediction turned out to be correct

* 1. Written Description – Question of Fact

NOTE: Significant debate about this area. Seemingly redundant with Enablement, but results in massive, highly specific patent claims/disclosures

Creates incentive to claim every possible embodiment 🡪 increased transaction costs, etc. but possibly more clear infringement litigation

* + 1. **Analysis**
       1. Test – WD is adequate if it reasonably conveys to PHOSITA **that the inventor had possession** of the claimed subject matter **as of the filing date** (*Ariad*)
          1. **Also Spot**: Priority after a continuation application to avoid prior art

Get earlier priority if no new matter in specification/claims (§ 120)

Can’t broaden claims later to sweep in a new invention (*Gentry*)

Foreign filed must be within 1y and within written disclosure of foreign ap

* + - 1. Breadth of claims limited by disclosure, not prior art (*Gentry Gallery*)
      2. Must disclose a representative number of species within the scope of a disclosed genus, or structural features common to all 🡪 distinguish other genus
      3. Functional claim language is ok if disclosure/art establishes correlation of structure and function
      4. PTO factors
         1. Level of skill and knowledge in the art
         2. Partial structure
         3. Physical/chemical properties
         4. Functional characteristics alone, or coupled with a known or disclosed correlation between structure and function
         5. Method of making the claimed invention
    1. **Policy**
       1. Avoids attempt to keep patent in PTO then amend to embody any approach others end up taking to skirt the patent
          1. Prevents gaming the system to avoid §102(a), (e), and (g) prior art
          2. Prevents early filing to avoid §102(b) statutory bar
       2. Forces highly specific claims – claiming millions of embodiments
          1. Strong written description requirement undermines doctrine of equivalents
    2. **Cases**
       1. *Gentry Gallery, Inc. v. Berkline Corp.* (FC 1998)
          1. Sectional sofa patent, 2 recliners facing forward, control console in between

Figure showing controls on console, claims encompass controls elsewhere

Purpose of invention makes reference to console

* + - * 1. Δ patent with no console (fold down table, controls elsewhere)
        2. Holding: Claims limited by disclosure, not by prior art
      1. *Regents of the University of California v. Eli Lilly*
         1. Patent on cDNA for human and vertebrate insulin, but discloses only rat
         2. Patent *enabled* PHOSITA to get human, had prophetic example
         3. Holding: Invalid w/out written description of human cDNA specifically
      2. *Rochester v. Searle* – “Inhibit COX-2 by using a COX-2 inhibitor” – invalid
      3. *Ariad Pharmaceuticals v. Eli Lilly* (FC 2010 *en banc*)
         1. Patent on NF-κB – Claims 3 genus of therapeutic drugs (inhibitor blocks DNA binding, decoy binds to NF-κB, dominantly interfering binds DNA no polym)
         2. Newman Concurrence - § 101 invalid
         3. Rader Dissent – There is no separate written description requirement
  1. Definiteness – Question of law

**Spot the issue:** Patentee defines a term, or uses a term without definition, cite to *Standard Oil* for against, cite to *Orthokinetics* if someone is challenging your patent

* + 1. **Analysis**
       1. **Spot the issue**: Means-plus-function claims, dual purpose claims (claim system and method of use), ambiguous terminology
       2. Would PHOSITA understand the claims in light of the specification?
          1. Can PHOSITA determine what would infringe the patent?
          2. Are the claims **insolubly ambiguous**?
    2. **Cases**
       1. *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.* (FC 1986)
          1. Claim for wheel chair “so dimensioned as to be insertable through the space between the doorframe of an automobile and one of the sears thereof”
          2. Holding: Not required to measure every car to get that dimension if PHOSITA can easily determine the requisite dimension
       2. *Standard Oil v. American Cyanamid* (FC 1985)
          1. Process claim requiring the presence of a copper catalyst that is “at least partially soluble in water”
          2. Slightly soluble has meaning to PHOSITA, not partially soluble
          3. Researcher was PHOSITA, she knew partially soluble and deliberately chose “slightly soluble” 🡪 invalid for definiteness

## Best Mode

* + 1. § 283 of AIA – Defenses to infringement do not include failure to disclose best mode
    2. Historical test
       1. Subjective – Did the inventor know a mode of practice he considered superior?
       2. Objective – if yes, then does specification disclose sufficient info to enable PHOSITA to practice best mode?
    3. Doctrine of unclean hands – Could be used to eliminate a concurrent trade secret and patent claims 🡪 foreclose equitable relief though still get monetary

1. INVENTORSHIP – Question of law

Make sure to consider incentive issues

Creation of prior art with changing lists of inventors

Always consider if someone else can be added to the patent to mess over someone’s litigation!

* 1. **Statute**
     1. § 116 – Inventors may apply for a patent jointly even though (1) they didn’t physically work together or at the same time, (2) each didn’t make the same type or amount of contribution, or (3) each didn’t make a contribution to the subject matter of every claim of the patent – can be amended if inventor left off in good faith error (good faith eliminated by AIA, applies in PTO, see also § 256 for litigation)
     2. § 256 – Court can order correction of inventors named in a patent (*Brown*)

## Analysis

* + 1. **Test** – Conception is whether the inventor had an idea that was *definite and permanent* enough that PHOSITA could understand it
       1. Proven with corroborating evidence, i.e. contemporaneous disclosure (*Burroughs*)
       2. Notes, emails, meeting minutes insufficient (*Aradigm* – sophisticated parties)
       3. Sketches/testimony from witnesses sufficient (*Ethicon* – unsophisticated and crooky inventor)
    2. Need not know it will work (*Applegate*), but need reasonable expectation it will
    3. Inventor’s belief it will work or reason for choosing an approach are irrelevant

### Joint/co-inventors

* + - 1. Can’t be 100% ignorant of each other (*Kimberly-Clark v. Proctor & Gamble*)
      2. Both co-inventors must contribute to the conception (*Burroughs*)
      3. Co-inventors are inventors of whole patent unless agreed otherwise (*Ethicon*)
    1. **Standing**
       1. All inventors must joint suit to bring a claim (*Ethicon*)
       2. *See also Stanford v. Roche* – Student signs “I hereby assign my rights to you” at Roche and “I will assign my rights to you” at Stanford 🡪 Roche wins
  1. **Policy**
     1. Contract labor – riskier for inventorship, but more efficient to not have specific experts on company payroll rather than temp. K-labor (*Aradigm*)
     2. Inventors are often groups at an inventive entity that change over time – prior art prob
     3. Favoring conception over reduction to practice – what do we want to reward?
  2. **Cases**
     1. *Burroughs Wellcome Co. v. Barr Laboratories, Inc.* (FC 1994)
        1. Barr ANDA on AZT from NIH who did some experiments to confirm efficacy *in vitro* on T-cells, Burroughs already had *in vivo* murine model proven
        2. Holding: NIH was simply confirming what had already been demonstrated, idea was already conceived
     2. *Brown v. Regents of the University of California*
        1. Lady with sick cats, documents, brings to UC researchers
        2. Researchers discover FTLV/FIV – cat-AIDS; Π not on patent
        3. Holding: Inventors patented methods of detecting and vaccination which Π didn’t contribute, Π contributed to discovery of virus which was not patented
     3. *Eli Lilly v. Aradigm Corp.* (FC 2004)
        1. Collaboration for aerosolized insulin (Lispro), Δ steals and gets patent
        2. Π must show more than co-pending patents to prove collaboration
        3. Question: Are claims for therapeutic effect of Lispro or therapeutic advantage of aerosolized formulation?
     4. *Ethicon, Inc. v. United States Surgical Corp.* (FC 1998)
        1. Safety surgical trocar for orthoscopic surgery, Yoon collaborates with Choi then boots him to patent.
        2. Holding: Co-inventors co-own whole patent no matter contribution, and co-inventors must both join suit to have standing
        3. Δ had been infringing for some time & owed $ before Choi licensed, but since Choi didn’t join suit, couldn’t get retroactive damages
           1. Dissent – Could have been joined under Rule 19

# ANTICIPATION – NOVELTY (§§ 102(a), (e), (f), (g))

**Be sure to identify the elements!!**

**NOTE**: Inherency and Enablement apply to **all** of § 102!!

Inherency is limited by QPQ argument 🡪 If you can’t/don’t recognize what you have, no inherent anticipation

* 1. **Generally** - Novelty requires that a single prior art reference contain, expressly or inherently, each and every feature of the claimed invention (*Robertson*)

## Inherent

* + 1. **Analysis** (Generally – *Robertson*) NOTE – Field of endeavor irrelevant (*Schreiber*)
       1. Disclosure must *necessarily include* the inherent subject matter
       2. The inherent subject matter must be an *inevitable result* of the reference
       3. **Accidental or Unknown**
          1. Inherency requires *recognition* by PHOSITA that the disclosure contains the non-expressed subject matter – Need some **operability** (*Seaborg*/*Tilghman*)
       4. **Backsliding From Public Use** – Can’t remove that in public use (*Broccoli*)
          1. That which infringes if later, anticipates if earlier (*Schering*)

|  |  |
| --- | --- |
| **No anticipation** | **Anticipation** |
| **Inherent** | |
| *Robertson* – Third adhesive strap on disposable diaper not anticipated by diaper with two – **Must contain every element** | *Schreiber* – Scale is inherently present in the oil can therefore popcorn is anticipated – **Scale and field of endeavor don’t matter** |
| **Accidental/Unknown – Need Operability** | **Anti-Backsliding – Inherent & in Public Use** |
| *Tilghman* – Process for Δ animal fat to glycerine and fatty acids not anticipated by lubricated steam engine – **Must be recognized by PHOSITA** | *Broccoli* – Broccoli sprout patent anticipated because the property of being “rich in glucosinolates” was inherent in the sprouts before the invention |
| *Seaborg* – Am patent not anticipated by Fermi reactor which inherently produces 6ng Am in 40 tons of produced reactor fuel – **Operability** | *Schering* – metabolite is necessary and inevitable to make the drug function – **infringes later = anticipates earlier** |

* + 1. **Cases**
       1. *In re Robertson* – Disposable diaper with two fasteners does not inherently include a disposable diaper with 3 🡪 no anticipation
       2. *In re Schreiber* – Conical popcorn dispenser anticipated by prior art conical oil dispenser 🡪 Scaling up still anticipates
       3. *Tilghman v. Proctor* – Process for breaking animal fat into glycerine and fatty acids with water, high temp, and pressure not anticipated by steam engine using animal fat lubricant 🡪 **Doctrine of accidental anticipation** implies some level of operability
          1. NOTE: Doesn’t have to be appreciated, just operable (*Broccoli*)
       4. *Schering Corp. v. Geneva Pharmaceuticals* – Patent on Claratin® metabolite (Ever-Greening/Anti-Backsliding); Geneva ANDA on Claratin® challenged under contributory infringement 🡪 That which would literally infringe if later in time, anticipates if earlier
          1. NOTE: Purified metabolite patent would have been ok (*Parke-Davis*)
       5. *In re Seaborg* – Americium patent not anticipated by Fermi reactor which would necessarily produce 6ng of Am in 40 tons of reactor fuel 🡪 was not/could not be identified so not anticipating
          1. NOTE: § 122(d) – Gov. can classify inventions for national security

## Enablement

**NOTE**: Double standard of enablement – Enabling disclosure to get patent vs. Enabling disclosure to anticipate patent 🡪 Driven by anti-backsliding

* + 1. **Analysis**
       1. The single reference must enable PHOSITA to **make each and every element**
          1. **Need not show how to use** the subject matter 🡪 no utility (*Titanium*)
          2. Asymmetry in enablement driven by **anti-backsliding**
       2. **Genus vs. Species Asymmetry**
          1. Prior art claim to species can kill a claim to a genus

Prior art genus doesn’t necessarily kill a species 🡪 species may have a surprising result/unique identifying characteristic making it patentable

* + 1. **Cases**
       1. *In re Hafner*
          1. Hafner makes chemicals, gets German patent, denied in US (utility)
          2. Later files with utility, but German patents over 1y 🡪 anticipated
          3. Holding: Even though German patent wouldn’t be valid in US, it is sufficient to anticipate if it enables PHOSITA to *make* the invention
       2. *Titanium Metals Corp. v. Banner*
          1. Claiming titanium alloy, anticipated by Russian article

Single data point on a single chart showing the alloy could be made

* + - * 1. Testimony of patentee that presence of the data point was enabling to PHOSITA even though no special use is suggested

## Availability

**NOTE:** If it is a **foreign** source, it must be a **patent or printed publication** – What is a printed publication?

* + 1. § 102(a) **–** Known or used by others in US, or patented or described in printed publication anywhere before invention thereof by applicant

### Known or Used by Others

* + - 1. Must be public knowledge (*National Truckers*)
         1. Non-secret use, openly in the course of normal business = public (*Rosaire*)
         2. Does not require positive act to bring it to the public’s attention (*Rosaire*)
      2. That can be corroborated (*National Truckers* – Clear and Convincing)
      3. That has not been lost such that its operability was never confirmed (*Gayler*)
         1. An operable invention that has been lost may still anticipate (*Coffin*)

### Publication

* + - 1. Factors (*Klopfenstein*) – Accessibility is the key
         1. Length of time display was exhibited (*Howmedica* – presentation slides of limited duration 🡪 Anticipated)
         2. Expertise of audience (*Jockmus* – Catalog to PHOSITA 🡪 anticipated)
         3. Existence or lack of reasonable expectation that the displayed material won’t be copied

Consider professional norms

Steps parties took to prevent copying

Reliance interest of the public – confidentiality agreement to negate any reliance interest

* + - 1. Simplicity or ease with which the material displayed could be copied
      2. Indexing Proxy – Printed publications
         1. *In re Hall* – Single work in a library can anticipate
         2. *In re Cronyn* – Only can anticipate if indexed in a meaningful way (topic)
         3. *In re Bayer* – Must be indexed prior to the critical date

### Patented

* + - * 1. *Reeves Brothers –* German mini-patent – Consider only claims, but use specification to explain the claims
    1. **Policy –** Search Theory (*Rosaire*)
       1. Where would someone interested in learning about that art look for it?
       2. Want to limit scope to what is accessible
       3. Strike a balance between invention and literature search

|  |  |
| --- | --- |
| **No Anticipation** | **Anticipation** |
| *National Tractors* – Tablecloth drawing, later lost, can’t be reproduced – need **clear and convincing** evidence | *Rosaire* – Anticipating prior use – searching for hydrocarbons in soil. Work done openly in ordinary course of business **does not require affirmative act** to bring to public’s attention |
| *Gayler* – Fire proof safe – Device lost, details forgotten. Not necessarily **operable** to those working in factory | *Coffin* – reversible latch – in factory that makes locks 🡪 would have been obviously **operable** to those in the factory – Questions *Gayler* |
| *In re Schlittler* – Manuscript in hands of publisher not available until published | *Jockmus* – Prior art German catalog for French customers, ~1000 copies circulated – anti-backsliding |

* + 1. **Cases**
       1. *National Tractor Pullers Assn. v. Watkins* (ND IL 1980)
          1. Drawing on table cloth, later lost, can’t be reliably reproduced
          2. Rule – Prior art existence and relevance must be shown by clear and convincing evidence

Public disclosure must be made – knowledge of one or a few persons working together is not enough

* + - 1. *Gayler v. Wilder* – Prior art fire proof safe in factory lost, details forgotten doesn’t anticipate 🡪 Dreyfuss – Operability – no one in factory could tell it was actually fire proof
      2. *Coffin v. Ogden* – Reversible latch in factory that makes locks 🡪 would have been obviously operable to those working in the factory
      3. *Rosaire v. Baroid Sales Division National Lead Co.* (5th Cir. 1955)
         1. Patents for prospecting for oil by collecting soil, grinding and heating to measure hydrocarbon gas – anticipated by prior use
         2. Where the work is done openly and in the ordinary course of the activities of the employer, the statute doesn’t require affirmative act to bring the work to the attention of the public at large
         3. Needed to show successful trial of the method (reduction to practice), not abandoned, suppressed, or concealed
      4. *Jockmus v. Leviton* (2nd Cir. 1928)
         1. Prior art picture in German catalog, ~1000 circulated to French customers
         2. Existence of catalog implies circulated – shift burden to Δ
         3. Anti-backsliding policy driven decision
      5. *In re Klopfenstein* (FC 2004)
         1. Method of extruding soy fiber 1x to enhance cholesterol lowering property
         2. Disclosed in talk, then on poster, no confidentiality
         3. Rule – Printed publication before critical date must have been sufficiently accessible to public interested in art (See above factors)
      6. *In re Schlittler* – Manuscript in publisher’s hands isn’t available until published (*Compare* § 102(e) – patent applications)
      7. *Reeves Brothers v. United States Laminating Corp.* (EDNY 1966)
         1. Polyurethane foam methods and apparatus for making/using
         2. German mini-patent – Consider only claims, but use specification to explain the claims
  1. § 102(e) – Invention was described in (1) application for patent, published under § 122(b), by another filed in US before invention by applicant or (2) patent granted on an application for patent by another filed in the US before invention by applicant, except that an international application under treaty (PCT) will be effective only if in English and designating US

**BE VERY CAREFUL:** This turns on delays of the PTO, if there is no chance an application will ever issue, it would not be secret prior art 🡪 note that it doesn’t become § 102(e) art until after it publishes 🡪 Cite to *Milburn* re: PTO delays

* + 1. **Analysis** (*Milburn*)
       1. A files, B files, A patent issues. In A application, discloses but does not claim X. In B application, claims X.
       2. B application is invalid under § 102(e) as anticipated by A patent
          1. B can swear behind A’s reference with Rule 131 affidavit
       3. If A’s disclosure does not contain *all the elements* of B’s claims, still available as a reference for obviousness
       4. Even if B patent issues before A, A still is prior art 🡪 Inquiry is B’s invention date and prior art filing date

### Secret Prior Art

* + - 1. Application is not published until 18mo after filing (§ 122(b)), once published it has the filing date as the effective date.
         1. The reference had a period of 18mo that it could anticipate, but was otherwise undiscoverable 🡪 “secret prior art”
    1. **Cases**
       1. *Alexander Milburn Co. v. Davis Bounonville Co.* (SC 1926)
          1. 2 applications, earlier filed discloses later filed invention in specification
          2. NOTE: No interference in PTO because patents claim different subject matter
          3. Policy

*Quid pro quo* – Later filed patent provides no public benefit

Delay in PTO shouldn’t foreclose something the public would have got for free

Anti-backsliding – Earlier filing patentee may have been using the later filed invention for some time

## Non-Derivation

* + 1. § 102(f) – He didn’t invent the subject matter (Anywhere)
    2. **Analysis**
       1. **Evidence of conception by another**
          1. Patent issued? 🡪 Clear and convincing
          2. Patent not issued? 🡪 Preponderance 🡪 No presumption of validity
       2. **Evidence for which the communication to the inventor can be inferred**
       3. Communication is complete enough to enable PHOSITA
          1. Incomplete – Can still use for obviousness
       4. **Need corroboration**
       5. Shop Rights
          1. Employer may have the right to continue to use an invention made by employee at work

Must be within the scope of employment

Akin to compulsory license – can continue to use in the manner consistent with the use at the time the invention was made

* + - * 1. Consider whether the employee was under obligation to assign – was it their job to invent things?
    1. **Cases**
       1. *Campbell v. Spectrum Automation Co.*
          1. Invention for flexible feed track
          2. Z invents while working at C’s company
          3. Evidence

Consulted father

Inspired by father’s belt buckle

Corroborated with pictures of father and belt buckle

## Prior Invention

* + 1. § 102(g) – (1) During § 135, or § 291 interference, another inventor involved therein establishes under § 104 that they **invented first** and didn’t abandon, suppress or conceal. (any WTO country) (2) before such person’s invention, the **invention was made** in this country by another who didn’t abandon, suppress or conceal. Consider conception, reduction to practice and reasonable diligence.
    2. **Generally**
       1. Rule awards a patent to the first to reduce to practice
          1. Unless the second person to reduce to practice was the first to conceive and diligently worked to reduce to practice
          2. Subject to abandon, suppress or conceal

### Analysis (*Dow Chemical v. Astro Valcour*) (Steps 1-3 🡪 § 102(g)(1))

* + - 1. Must have **conceived** the invention (See above, inventorship – conception)
         1. Definite and permanent idea of the complete and operative invention so PHOSITA would be able to reduce every feature to practice without excessive research or experimentation
         2. Usually must show contemporaneous evidence of corroboration
      2. **Diligence** (*Kanamaru*/*Seybold*)
         1. Rule – Inventor who diligently pursues reduction to practice after earlier conception can get priority over first to reduce to practice
         2. Diligence period – Begins prior to conception by the other and goes to inventor’s own reduction to practice (constructive or actual)

Must account for the entire diligence period (Laser invention, lost patent because of gaps of several weeks during diligence period)

Small gap ok, large gap needs poverty, illness, vacation, etc. (*Kanamaru*)

* + - 1. **Reduced to practice** (*See Peeler v. Miller* – Time is RTP of *claimed invention*)
         1. Constructive – Filing patent application reduces to practice
         2. Actual – Building/testing physical embodiment – ok if not commercially viable – Appreciation of intended purpose (probability of success)

Requires corroboration with contemporaneous evidence

* + - 1. **Appreciate** something invented but not that its patentable (*Dow Chemical v. AVI*)
      2. Not **abandoned, suppressed or concealed** (§ 102(g)(2)) (4y delay, *See Peeler*)
         1. Spot the issue – Most often in “spurring” cases 🡪 first inventor files after second inventor application or commercial activity (*Mason v. Hepburn*)
         2. After ASC, inventor can renew activity on the invention and proceed diligently so long as it is before the second inventor’s earliest priority

Can be secret use if user is proceeding with diligence to bring the invention to the public! *AVI*

* + - * 1. See Secret Prior Art (§ 102(b))

*See Dow Chemical v. AVI and Dunlop* – Some level of suppression is seemingly ok so long as end product could be reverse engineered (Informing public use) *or* there is evidence of diligence to bring to public

### Rule 131

* + - 1. Affidavit to show conception and reduction, or diligent effort to reduce to practice
      2. Affidavit cannot antedate a reference for interferences to determine priority over the same subject matter or to antedate a reference for a statutory bar
      3. Antedating affidavit only needs to show prior invention of the features disclosed in the prior art – No need to show all features of the patent (*In re Moore*)
    1. Interference – Burden is on junior party (later priority date) to antedate senior party
       1. Can be declared when more than one application/patent ***claim*** the same invention
       2. Corroboration
          1. Burden is preponderance of the evidence (*See Brown v. Barbacid*)

NOTE: Applications following § 122(b) publication are suspect

* + - * 1. Evidence: Counter-signed notebooks (what’s done), testimony (appreciated)
        2. Reduction to practice

Every claimed element

Inventor must appreciate that it works for intended purpose

Depending on complexity, may require some perfection

Constructive – Doing enough that examiner is convinced PHOSITA knows it would work

* + - 1. Settlement – If no party should have patent, settlement is collusive
         1. § 135(c) – Settlement filed with PTO who considers whether patent should not be issued to either party
      2. Priority – First to file is senior applicant, burden on junior applicant to ante-date
      3. Earlier priority (*Moore* – Only need to antedate claims in senior patent)
         1. § 120 – Relates back if fully enabling

Application then divisional; PTO rejection and continuation

* + - * 1. § 119 – Foreign filing followed by US filing within a year
        2. § 111(b) – Provisional application
    1. **Policy**
       1. *Quid pro quo* – A private and deliberately undisclosed use doesn’t anticipate because the public never receives the benefit of the initial invention
       2. Public domain/anti-backsliding
          1. Something that infringes if later, must anticipate if earlier
       3. Need some appreciation or operability
       4. Search theory
    2. **Effect on other provisions**
       1. § 102(a) allows publication without reduction to practice – (g) requires conception plus reduction to practice
       2. § 102(e) allows material disclosed but not claimed to be prior art – (g) is only what is claimed
       3. § 102(a) – no territorial limit – (g) only in US
    3. **Examples**

|  |  |
| --- | --- |
| **Timeline** | **Outcome** |
| A files, then B files | A wins, A reduced to practice before B |
| B reduces to practice  A files, then B files | B wins, reduction to practice before A’s constructive reduction to practice |
| A reduces to practice  B reduces to practice  A files, then B files | A wins because A reduced to practice before B |
| B conceives and proceeds with diligence  A reduces to practice  A files, then B files | B wins because although B was second to reduce to practice, B conceived first and worked diligently |
| A conceives and proceeds with diligence  B conceives and proceeds with diligence  A reduces to practice  A files, then B files | A wins because conception and reduction are before B |
| B reduces to practice  A reduces to practice  B abandons, suppresses, or conceals  A files, then B files | A wins because B abandoned, suppressed or concealed and didn’t resume before A’s inventive activity |
| B conceives and proceeds with diligence  A reduces to practice  A files  B publicly discloses the invention  A’s patent issues | A’s patent is invalid because B first conceived and proceeded with diligence before publicly disclosing |

* + 1. **Cases**
       1. *Mason v. Hepburn*
          1. Invents gun clip that he conceals in a drawer, later inventor invents/patents
          2. Holding: Patent upheld because invention was abandoned, suppressed, or concealed 🡪 Codified in §102(g)(2)
       2. *Dow Chemical Co. v. Astro Valcour, Inc.* (FC 2001)
          1. Making foam with isobutane as blowing agent
          2. AVI licenses general method from Japanese – Invents and uses the process
          3. Burden shifting

Burden on AVI to prove they were using it before filing of Dow

Burden to Dow to raise material question of fact that AVI concealed

* + - * 1. Rule – Anticipating inventor must recognize they invented something, not that it is patentable
      1. *Dunlop Holdings, Ltd. v. Ram Golf Corp.*
         1. Invented golf ball coating, Dunlop invents separately
         2. Holding: Despite secrecy, invention was not suppressed

Use gives public benefit

When the article itself is freely accessible to the public, it is fair to presume it will be reverse engineered 🡪 “Informing public use”

* + - 1. *Kewanee Oil Co. v. Bicron Corp.* (SC 1974)
         1. Patent on method to grow scintillation crystals, employee defects and starts competing company 🡪 Δ claims trade secrecy preempted by patent law
         2. 3 prong argument

Inventions that are not patentable – removing TS will not push these into the public/patent system, TS promotes licensing/other sharing of info

Inventions that might be patentable – these people will mostly seek patent and at the margin some patents will get denied 🡪 TS makes no change

Invention is patentable – TS is a much weaker protection than patent law in this situation, doesn’t protect against parallel discovery, etc.

* + - 1. *Brown v. Barbacid* (FC 2002)
         1. Claim to assay for IDing anti-cancer compounds
         2. Barbacid filed 5/8/90, issued 2/9/93
         3. Burden – Preponderance of the evidence

Barbacid issued, but they were co-pending so no clear and convincing

* + - * 1. Corroboration

Counter-signed notebooks corroborate what was done

Testimony of other inventors corroborate what application appreciated

* + - 1. *Griffith v. Kanamaru* (FC 1987)
         1. Adequate excuse for break in diligence – Sickness, vacation, poverty, etc.

*See Christie v. Seybold* – No $ for tools insufficient because could have contracted to have someone else build it

* + - * 1. Griffith earlier conception, Kanamaru files and issues

Break was to find funding and wait for specific grad student

Not acceptable – Lab was not shorthanded; Cornell policy requiring prof to seek outside funding assumes risk of break in diligence

* + - 1. *Peeler v. Miller* (CCPA 1976)
         1. Hydraulic fluid that reduces cavitation
         2. Miller reduced claimed invention to practice, then continued experimenting

Peeler conceives, reduces, files

* + - * 1. Claim that Miller hadn’t reduced to practice – was being diligent

RTP is for claimed invention, NOT further experimentation

After RTP, invention was suppressed/concealed due to delay (4y)

* + - 1. *In re Moore* (FC 1987)
         1. No need to antedate all claims in patent, only ones conceived/demonstrated by senior applicant
         2. *Ex parte* patent proceeding requires utility
         3. In interference, just need to antedate the element, no need to show utility unless the reference being antedated also shows utility

# STATUTORY BARS – NOVELTY (§§ 102(b), (c), (d))

## Abandonment

* + 1. § 102(c) – Cannot get patent if he has abandoned the invention
    2. **Analysis**
       1. Inventor has abandoned the *intent to get a patent* (*Macbeth-Evans Glass*)
          1. Must be intentional conduct, but can be inferred from actions
       2. Modern Interpretation
          1. Federal Circuit interprets that there is no abandonment if less than a year without *express abandonment* by the inventor (*Mendenhall*)
    3. **Cases**
       1. *Macbeth-Evans Glass Co. v. General Electric Co.* (6th Cir. 1983)
          1. Light bulb glass invention – public non-informing use for ~10y
          2. Holding: Barred because inventor abandoned the intent to get a patent

## Prior Foreign Filing

* + 1. § 102(d) – Invention was patented or subject of inventor certificate anywhere more than 1y prior to filing in the US
    2. **Analysis**
       1. Same invention
       2. Foreign application filed more than 12mo before US filing
       3. Foreign patent or certificate issued before US filing
       4. PCT – File within 1y of foreign filing, get priority of foreign filing date (not for statutory bars)
          1. File later than the year 🡪 no early priority
          2. File after foreign patent issues 🡪 Barred
    3. **Cases**
       1. *In re Kathawala* (FC 1993)
          1. US filing in ʼ82 (Defective under §§ 119, 120)
          2. Filed in ʼ83 in Greece and Spain
          3. 84/85 Greece and Spain issue
          4. File in US in ʼ85 adding subject matter (included in foreign patents) 🡪 forfeit earlier priority
          5. Holding

Validity of foreign patent is presumed

So long as the foreign patent necessarily includes what is in the US patent 🡪 Anticipates even if foreign rules limit/change what can be claimed

Tolls with right to exclude, not when the patent publishes

* 1. § 102(b) – Invention was patented or described in printed publication anywhere or in public use of on sale in the US more than 1y prior to application

**NOTE:** For foreign prior art, must ask whether the document/article is actually a written publication!

* + 1. **NOTE –** Patent and printed publication is the same as § 102(a) but patent/publication by inventor counts against inventors patent!!

### Public Use

* + - 1. **Generally** – Any use of the invention by an applicant in a public setting as well as any use by a person other than applicant with no limitation, restriction, or obligation of secrecy to inventor
         1. Informing Use – Reveals invention, disclosure puts public in possession
         2. Non-Informing Use – Does not reveal the nature of the invention
         3. Secret Use – Non-informing use where inventor/possessor intends trade secret
      2. **Public Use by Applicant**
         1. Informing use by inventor creates a bar to patent
         2. Non-Informing use by inventor creates a bar to patent (*Egbert*)

Single use may be public even if invisible

No more concealment than is inseparable from any legitimate use (*Hall v. MacNeale* – Burglar safe w/ hidden advanced features)

Single person may be informed so long as not under duty of secrecy

*See Moleculon* – Maintain control, personal relationships/circumstances imply confidentiality

* + - * 1. Secret use by inventor is “public” under § 102(b) even if only non-informing finished products are sold produced by secret process (*Metallizing*)

Non-Informing public use of high-level aspects of software are public (*Lockwood v. AA* – SABRE reservation system)

* + - 1. **Public Use by Third Parties**
         1. Informing use by 3rd party creates a bar to patent – anti-backsliding
         2. Non-Informing use by 3rd party can create a bar to patent

Bar even if use is unknown @ time and discovered later (*Abbot v. Geneva*)

* + - * 1. Secret use by 3rd party will not bar a patent (*Gore v. Garlock adopting Metallizing*)

Critical – Product cannot be reverse engineered (*See Dunlop*) 🡪 sale is non-informing

*But see Baxter v. Cobe* – Use at NIH sufficiently public to bar

Experimental Work ≠ Experimental Use

Experimental use by 3rd party can still anticipate patentee

*Dissent (Newman)* – Punish concealing inventor but not secret 3rd party use

* + - 1. **Note** – Secret use with no public exploitation will not anticipate (*Bates v. Coe*)
         1. Even stolen 3rd party use is anticipating (*Lorenz* – 3rd Circuit)

### On Sale

**NOTE!** Assignment/sale of **patent rights** does **NOT** trigger the on-sale bar!!

* + - 1. Analysis (*Pfaff*)
         1. The product is the subject of a commercial offer for sale

Sufficiently firm and definite to permit immediate acceptance to form a K

* + - * 1. Invention is ready for patenting

By proof of reduction to practice before the critical date

Or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable PHOSITA to practice the invention

Must have some form of operability

But inventor need not recognize what she has (*Abbot*)

* + - * 1. Corporate entities

Divisions of a corporation are not separate entities for on sale (*Caveney*)

Sale between separate corporations even though they are joint developers each employing named inventors is a sale (*Brasseler USA v. Stryker Sales*)

* + - 1. Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Citation** |
| Invention – **Specific offer** – Performance | *UMC Electronics Co.* – Specific bid on Navy K rejected 🡪 anticipated  *King Instrument Corp.* – Ambiguous bid w/ description indicating “new” version 🡪 anticipated |
| Invention – General Offer – **Performance** | Spot the issue: Typically ambiguous offer   * Turns on question of fact whether pre-critical date offer was directed at patented material or decided later (*Tec. Air Inc. v. Denso Mfg. Mich. Inc.*) |
| General offer – Invention – **Performance** | *Sparton Corp.* – Sale of older piece, invented and delivered new one 🡪 no anticipation by sale (note delivery after critical date) |
| Specific offer – **Invention** – Performance | Turns on operability   * *Weatherchem* – PO accepted, not delivered til after critical date, but delay was fine-tuning manufacturing 🡪 Anticipated * *Gemmy Indus. Corp.* – Marketing materials/quote sheets not anticipating without commercial offer for sale |

### Exceptions

* + - 1. **Duty of Secrecy to Inventor**
      2. **Sale/Assignment of Patent Rights** – Selling/assigning patent rights does not trigger on-sale bar (*Moleculon*)
      3. **Experimental Use Negation**
         1. Inventor may conduct extensive testing to perfect discovery without losing right to a patent – even if it is in the public eye (*City of Elizabeth*)

Claiming reduction to practice = no more experimental use (*Continental Plastic Containers*)

Turns on whether the product has been demonstrated to work as intended

Must consider the nature of what is being tested when considering the time allotted for experiment (*City of Elizabeth*)

* + - * 1. Can rebut on-sale bar

*Seal Flex, Inc. v. Athletic Track & Court Constr.* – Experimental use continued through winter because previous track failed

*Manville* – Light fixture sold to city needed to prove it could handle wind – NOTE: not paid til after demonstration

*TP Laboratories* – Orthodontist installed device on several patients – must run course of treatment even with promising results @ 6mo

*In re Smith* – Market testing to gauge demand is not experimental use

* + - * 1. Factors (*Lough*) – Totality of the circumstances

Number of prototypes – Extensiveness of the use

Duration of testing – Consider what kind of testing is appropriate

Whether records or progress reports were made concerning the testing

Consider inventor’s activity and behavior 🡪 indicative of testing?

Existence of a secrecy agreement – Careful, trade secrets not allowed

Compensation for the prototype

Extent of control the inventor maintained over the testing

Also consider industry custom

*See also Dissent* – Unsophisticated inventors should not be held to a legal standard that they could not be expected to know or understand

* + 1. **Policy**
       1. In favor of 3rd party use creating bar
          1. Protects public disclosure and trade secret (consider especially software)
          2. Incentivizes early filing
       2. Against 3rd party use creating bar
          1. No public domain if secret (quid pro quo)
          2. TS holder can’t invoke protection of Patent Act to invalidate a later inventor’s patent when they deliberately chose to avoid the disclosure requirement
          3. Patentee is not trying to extend her rights (as with secret use of inventor)
          4. Patentee has no way to know when the bar is triggered – “perpetual cloud on any issued patent”
    2. **Cases**
       1. *Egbert v. Lippmann* – Corset spring invention used by wife, shown to friend
          1. If inventor gives to someone without limitation/restriction or injunction of secrecy and it is used, such use is public even though knowledge is confined to 1 person – Some inventions are by their character only capable of use where they can’t be seen/observed by the public eye (SC 1881)
       2. *Moleculon Research Corp. v. CBS, Inc.* – Rubics cube invention (FC 1986)
          1. Distinguish *Egbert*

Inventor maintained control, confidentiality implied by personal relationships/circumstances

Oral agreement to assign patent rights is not a “sale”

* + - 1. *City of Elizabeth v. American Nicholson Pavement Co.* (SC 1877)
         1. Filed caveat (provisional), installed and tested pavement for 6y
         2. Holding: Must consider the nature of what is being tested when examining the time of the experimental use
      2. *Lough v. Brunswick Corp.* – Seal assembly for stern drive motors (FC 1996)
         1. Made 6 prototypes and gave to friends to install/test
         2. Failure to monitor use, lack or reports/records, etc. compel conclusion that this wasn’t an experimental use
         3. Lack of commercialization is not dispositive

Failed to maintain control/follow up on prototypes

* + - * 1. Dissent

Must consider that this is a home-made remedy made by a guy with high school education and solved a problem by trial and error

Cannot be held to the standard the court wants – he is not a lawyer, the court needs to consider who they’re dealing with

* + - 1. *Pfaff v. Wells Electronics, Inc.* (SC 1998)
         1. Applicant made engineering drawings enabling PHOSITA
         2. Gets oral confirmation of PO before critical date, sends to manufacturer
         3. Anticipated by on sale bar
      2. *UMC Electronics v. US* – Bid to Navy triggers bar even though rejected
      3. *King Instrument Corp. v. Otari Corp.*
         1. Ambiguous offer (new/old product same name) triggers bar
         2. Description in quote indicated only 40% could be old machine 🡪 mind of patentee indicates the new one was on sale
      4. *Abbot Laboratories v. Geneva Pharmaceuticals, Inc.* (FC 1999)
         1. “Form IV” of drug is produced and sold before critical date, not determined it is Form IV til later 🡪 anticipated under doctrine of inherency
         2. Need indicia of operability, but not necessarily recognition of what you have
      5. *Metallizing Engineering Co. v. Kenton Bearing and Autoparts Co.* (2nd Cri. 1946)
         1. Patent on improved method for conditioning metal surfaces for metallizing
         2. Separates inventor’s competitive exploitation of the secret process from 3rd party secret prior use
      6. *Gore v. Garlock* – Process for rapid stretching of PTFE (Teflon) (Gore-Teks)
         1. 4y prior, Cropper (NZ) discovers and sells to Budd to make PTFE thread seal tape – disclosed under trade secret/confidentiality agreements (FC 1983)
         2. Tape was sold, but was non-informing (not enabling) 🡪 not anticipating
      7. *Lorenz v. Colgate Palmolive-Peet Co.*
         1. Employee stole process/used 🡪 anticipated because used in ordinary business
      8. *Baxter International v. Cobe Laboratories Inc.* – Seal-less centrifuge at NIH
         1. Policies: (FC 1996)

Anti-backsliding

Favoring the prompt and widespread disclosure of inventions

Allowing the inventor a reasonable amount of time following sales activity to determine the potential economic value of a patent and

Prohibiting the inventor from commercially exploiting the invention for a period greater than the statutorily prescribed time

* + - * 1. Centrifuge met the limitations of the patent, worked, and NIH researchers saw and used it. No effort to conceal, etc.
        2. Experimental work ≠ experimental use

# AIA – NOVELTY, AND SECRET PRIOR ART

* 1. **Statute (§ 102)**
     1. (a) Entitled to patent unless
        1. (1) invention was patented, described in publication, in public use, on sale, or otherwise available to the public before effective filing date or
        2. (2) invention was described in patent under § 151, or in an application published under § 122(b), names another inventor and was effectively filed before the effective filing date
     2. (b) Exceptions:
        1. (1) Disclosure less than 1y before filing is not prior art under **(a)(1)** if
           1. (A) by the inventor/joint or another obtained from the inventor directly/indirectly, or
           2. (B) Before such disclosure, was publicly disclosed by the inventor/joint or other obtained from the inventor directly/indirectly.
        2. (2) Disclosure in a patent or application is not prior art under **(a)(2)** if
           1. (A) subject matter disclosed was obtained from the inventor,
           2. (B) subject matter had been publicly disclosed before filing by the inventor/joint or another obtaining from the inventor directly/indirectly, or
           3. (C) the subject matter disclosed and the claimed invention were (before filing) were owned by the same person or under common obligation to assign
     3. (c) Common ownership under **(b)(2)(C)** if (1) subject matter was developed and claimed by or on behalf of 1 or more parties to joint research agreement in effect before filing, (2) invention was made as a result of activities undertaken within the scope of the joint research agreement and (3) the application discloses or is amended to disclose the names of the parties to the joint research agreement
     4. (d) Prior art under **(a)(2)** is effectively filed (1) if ¶ (2) doesn’t apply, as of the actual filing date of the application or (2) if the patent can claim priority under ¶ 119, 365(a), or 365(b), or to claim earlier filing date under § 120, 121, or 365(c), based on 1 or more filed applications, as of the earliest filing date that describes the subject matter
  2. **§ 273** – Defense to infringement based on prior commercial use
     1. (a) A person has a defense under §282(b) WRT subject matter consisting of a process, or a machine, manufacture, or composition of matter used in a manufacturing or other commercial process, that would otherwise infringe a claimed invention if
        1. (1) Such person, acting in good faith, commercially used the subject matter in the US, either in connection with an internal commercial use or an arm’s length sale or other arm’s length commercial transfer of a useful end result of such commercial use and
        2. (2) use occurred at least 1y prior the earlier of (A) effective filing date of invention or (B) the date the invention was disclosed to the public under §102(b)
  3. **§ 135(a)** – Derivation Proceedings
     1. Applicant for patent may file a petition to institute a derivation proceeding in PTO. The petition shall set forth with particularity the basis for finding an inventor named in an earlier application derived the claimed invention from an inventor named in the petitioner’s application and, without authorization, the earlier application claiming such invention was filed.
     2. Any such petition may be filed only within the 1y period beginning on the date of the first publication of a claim to an invention that is the same or substantially the same as the earlier application’s claim to the invention, shall be made under oath, and shall be supported by substantial evidence
  4. **§ 115** – Inventor’s oath or declaration
     1. (a) Application shall include the name of the inventor for any invention claimed. Except as otherwise provided in this section, each individual who is the inventor of a claimed invention in an application for patent shall execute an oath/declaration in connection with the application
     2. (b) An oath/declaration shall contain statements that (1) the application was made or was authorized to be made by the affiant and (2) such individual believes himself to be the original inventor or an original joint inventor of a claimed invention in the application
  5. **Policy** – Old System vs. New System
     1. Old System – Can’t be hurt by self-publication, presentation at conferences, etc.
        1. Allows time to perfect claim drafting
     2. New System – No time to perfect disclosure, possible to invent first and lose, no domestic/foreign activity distinctions (search theory issues)
        1. § 135 – Derivation procedure to determine inventorship
        2. § 273 – Prior user right for someone using a TS prior to someone else getting patent 🡪 see below secret prior art issues ((e)(5) – not for university inventions)
     3. Conceive/reduce to practice efficiently – cost to public increases with more people on the same problem, BUT can lead to inefficient resource allocation to rush to PTO
  6. **Secret Prior Art Under the AIA**
     1. PTO public statements and legislative history militate against secret prior art of 3rd parties anticipating patents
        1. John Kyle/Lamar Smith/Patrick Leighey – All made statements that it won’t
        2. PTO seeking comment on whether secret sale should bar
     2. § 273 – Would only be included assuming secret use can’t block the issue of a patent
        1. NOTE: Strict reading requires use to only be consistent with prior use 🡪 cannot develop or expand
     3. **Grace Period**
        1. Inventorship
           1. Disclosure: A; Patent: A, B, and C 🡪 Not anticipating
           2. Disclosure: A, B, and C; Patent: A and B 🡪 Anticipating
        2. Subject Matter Disclosed – PTO guideline indicates insubstantial, trivial or obvious changes will make the exception not apply
  7. **Merges and Duffy Notes**
     1. Critical date for most purposes is filing date
        1. Prior art is all references available before the filing date
        2. Priority contest is almost exclusively determined by filing dates
     2. **Novelty vs. Priority**
        1. Priority is a question of who, between 2 rivals, will obtain patent for an invention
           1. First to file, or determined through derivation proceeding
        2. Novelty is a question of whether, as between inventor and piece of prior art, the inventor acts before or after the prior art enters the field
     3. **Grace Period**
        1. Kicks in for disclosures made by the inventor and protects against 3rd party disclosures after the inventor’s public disclosure
        2. § 102(b)(2) governs
           1. Applicant/patentee faced with earlier filed patent derived from patentee
           2. Applicant/patentee faced with earlier filed patent, but patentee made public disclosure prior to the earlier filed patent
           3. Applicant/patentee faced with earlier filed patent w/ common duty to assign
     4. **Public Use or On Sale**
        1. Confidential sales or offers places invention “on sale” for novelty
        2. Non-informing public use
           1. Distinguish between inventor and 3rd party
           2. Inventor anticipates himself, 3rd party is non-anticipating
        3. Controversy about whether confidential and non-informing sales are prior art
           1. Legislative history indicates it shouldn’t include nonpublic use/offer to sell
     5. **Policy on Grace Period**
        1. AIA carries forward distinction between inventor and 3rd party secret disclosure
           1. Inventor = art, 3rd party = not art
           2. Discourages early commercialization/extension of monopoly for inventor while not punishing inventor for ultra-obscure, secret 3rd party activities that would otherwise shorten the effective grace period
        2. AIA permits inventor to safeguard against 3rd party prior art by making disclosure
           1. Immunizes inventor against prior art effect of 3rd parties
           2. Removes later disclosures
        3. Inventor can file provisional (can preserve TS up to 2.5y longer)
           1. See also prior user right
     6. Information **disclosed but not claimed** in a prior filed patent application or patent is part of the art under § 102(a)(2) same as old § 102(e)
        1. Exception is later-filing inventor can ante-date early filer by disclosing first
        2. If prior filed application/patent claims same subject matter as later one 🡪 priority/derivation proceedings

# OVERALL POLICY ARGUMENTS!!!

* 1. **Early Publication of Applications**
     1. Encourages more/better research (Search Theory)
     2. Avoids duplicative research/more efficient resource allocation
     3. Solves some § 102(e) secret prior art issues
     4. Solves issues with “submarine” patents
  2. **First to File**
     1. **For**
        1. Avoids costly interferences
        2. Encourages early filing/disclosure (*Quid pro quo*)
     2. **Against**
        1. Not enough disclosure
        2. Can’t perfect claiming/disclosure
        3. Inefficient resource allocation
  3. **Product by Process Claims**
     1. New use of old materials?
     2. Double patenting problem
     3. Hold-up problems (*Scripps v. Genetech*)
     4. Limitations of language
  4. **Value of Patents**
     1. *eBay v. Mercexchange* – lowers probability of getting an injunction
        1. Competing incentives of Trolls/infringers (*Microsoft*)
     2. *Merck*/*Madey* – increase value of patents, limits experimentation, narrow defense
     3. *Microsoft* undercuts value because results in uncertainty WRT global issues
     4. *Illinois Tool* may result in more efficient resource allocation
  5. **Competitive Climate**
     1. *Merck*/*Madey* – Can’t build on non-pharma inventions
        1. But HWA is really about generics, not spurring development
     2. *KSR*, *Bilski*, *Metabolite*, *Mayo* – Harder to get patents
        1. Decrease information exchange, increase inventive to make more innovative ideas, may push people to trade secret (SEE ABOVE FOR TS ARGUMENTS!)
     3. *Rochester*/*Gentry Gallery* – Narrow claim construction 🡪 undercuts patent value
        1. Increases incentive to build on prior art, increases certainty re: infringing uses
  6. **Overall**
     1. Fewer patents creates greater incentives, lower transaction costs, more valuable patents
     2. Efforts to control injunctions, and lost profit damages may increase infringement
        1. Always a balance between Trolling and Infringement

# NONOBVIOUSNESS

* 1. **Generally**
     1. **§ 103** – A patent may not be obtained 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 a the time the invention was made to a PHOSITA
  2. **Analysis** – *Graham v. John Deere Co.* (Final determination is question of law)
     1. **Factual Inquiries**
        1. Determine scope and content of the prior art
           1. Consider **analogous/pertinent** prior art
        2. Differences between the prior art and the claims at issue
        3. Level of ordinary skill in the art (Factors from *Arkie Lures*)
           1. Educational level of inventor/people in the field
           2. Type of problems encountered in the art
           3. Prior art solutions to those problems
           4. Rapidity with which innovations are made
           5. Sophistication of the technology
     2. **Determine whether invention was obvious** @ time of invention to PHOSITA
     3. **Secondary Considerations**
        1. Commercial Success (*Arkie Lures*/*Hybritech*) – But consider excellent marketing
        2. Long felt but unsolved need (*Hybritech*)
        3. Failure of others
        4. Prior art “teaching away” (*Adams*/*Arkie Lures*)
           1. Unexpected results – This combination of prior art elements produces an unexpectedly effective result
        5. Exogenous social/technological change (*Merges & Duffy*/*Selden Automobile*)
           1. *Richardson-Vicks v. UpJohn* – Cough syrup w/ ibuprofen after made OTC – obvious even though didn’t happen for a long time)
     4. **Cases**
        1. *Graham v. John Deere Co.* – Obvious combination of prior art elements in older plow patent. Also Palmolive obvious “hold down cap” (SC 1966)
        2. *United States v. Adams* (SC 1966)
           1. § 1498 – Gov. can use any patent, but must pay just compensation
           2. Known structure in prior art altered by substitution must yield unpredictable result – Prior art taught that using water electrolyte in this way would explode
           3. NOTE: Prior art need not be operable to be considered
        3. *Hybritech v. Monoclonal Antibody* – Nonobvious assay using monoclonals vs. polyclonals – Huge commercial success & long felt need to improve assays

*Hybritech*

FC 1986

* + - 1. *Arkie Lures Inc. v. Gene Larew Tackle Inc.* (FC 1997)– Nonobvious salty plastic fishing lure – PHOSITA testimony, prior art teaching away (explodes), commercial success – revolutionized the industry

## Analysis (Subtests from *KSR*)

**VERY IMPORTANT!!!**

* No TSM
* Obvious to try in light of prior art – predictability of result
* Emphasis on extraneous sources of motivation
* ProD emphasizes that PHOSITA has more creativity/playfulness
  + 1. **“Obvious to Try” – Reasonable Expectation of Success (*See In re Kubin*)**
       1. Design need/market pressure to solve a problem
       2. Finite number of identified & predictable solutions
       3. Routine experimentation yielding anticipated success ≠ Patent
    2. **PHOSITA is not an automaton**
       1. Motivation/purpose of patentee/prior art is irrelevant
          1. Repurposing – Prior art directed at one purpose used for different
          2. *Leapfrog v. Fisher Price* – Digitizing a mechanical toy is obvious
       2. Reasonable creativity – Prior art that is helpful to solving the problem provides sufficient motivation to combine – any need in the field
          1. *Jack O’lantern Case* – Fake jack o’lantern from plastic bag rather than prior art paper bag not obvious under Teaching, Suggestion, or Motivation (TSM)
       3. Consider – Design incentives, market forces, needs created by developments in field, amount/cost of experimentation, routine techniques/approaches
    3. **Motivation to Combine**
       1. *Sakraida v. Ag Pro* – If a technique is used to improve a device, & PHOSITA knows it’ll improve others in same way, there’s obvious motivation to combine
       2. *Adams* – Patent composed of elements not obvious simply because they were known in the art
    4. **Cases**
       1. *KSR v. Teleflex* – Obvious combination of prior art pedal and prior art sensor.
       2. *Ritchie v. Vast Res* – Obvious borosilicate glass sex toy over PA glass sex toys
       3. *In re Kubin* – Obvious claiming DNA sequence encoding prior art NAIL protein
          1. *In re Bell* (Insulin) and *In re Duel* say this is not obvious, BUT technological development comes a long way.

*KSR*: SC 2007

*Kubin*: FC 2009

* + - * 1. Prior art teaches protein, motivation to isolate gene, & instructions how to do
      1. *Dickenson v. Zirco* – PTO adjudicates, A&C review to overturn obviousness find
  1. **Other Considerations**
     1. Inventions in an “unpredictable” arts are easier to patent (*Eisai v. Dr. Reddy*)
     2. Careful! – Solution to a known problem may be obvious
        1. BUT obvious solution to an unknown and nonobvious problem is not obvious
        2. *See Paper Making Patent Case*
     3. NOTE: After-thought argument – Court is suspicious of arguments made in litigation that were not made in front of PTO (*Graham v. John Deere Co.*)
     4. Presumption of validity (§282) diminished if considering prior art not in front of PTO
        1. *See Microsoft v. i4i* – Standard is C&C but judge instructs that PTO didn’t see it
     5. “Long Slog Patents” – Product of obvious to try and patent system as inducement theories 🡪 Invention can be patentable if there are *a lot* of obvious things to try
        1. *See Ritchie v. Vast Res*

## Scope and Content of the Prior Art

NOTE: Be sure to mention what “kind” of obviousness you’re talking about: e.g. 102(e)/103, etc.

* + 1. **Analysis (§ 102 – All ¶ of 102 apply)**
       1. PHOSITA knows all prior art in the field of endeavor (*In re Winslow*)
          1. Must be substantially public (§ 102(a)) (*But see In re Bass*, § 102(g))
       2. Secret § 102(e) prior art counts as prior art for obviousness (*Hazeltine v. Brenner*)
          1. Search theory yields to anti-backsliding
       3. § 102(g) prior art is available (*In re Bass*)
          1. NOTE: Info disclosed but not claimed is prior art under § 102(e), but NOT (g)
          2. NOTE: This was a patent under common duty to assign, court creates presumption (presumably from prosecution) that it was invented before filing
       4. § 102(f) prior art is available (*Oddzon Products v. Just Toys*)
          1. Not good against the world, only the person it was disclosed to
       5. Presumably § 102(c) and (d) are also available but never used before
       6. NOTE: § 103(c) – No § 102(e)/(f)/(g) under common ownership/duty to assign
    2. ***In re Foster* (§ 102(b))**
       1. Prior art reference made after the date of invention, but 1y+ before filing date
       2. *Dick Seale v. New Haven* – Substantial Identity Test – § 102(b) doesn’t require precise identity between prior art and invention
       3. This is “obviousness under § 102(b)” – PHOSITA knowledge @ 1y b4 filing
          1. Some question about whether this can be combined with others
       4. Alternate – Carry back § 102(b) reference to invention date and use as § 103
       5. NOTE: Never been public use/on sale § 103 rejection yet (this was publication)
    3. **Inventorship Exception – *In re Land***
       1. If A discloses but doesn’t claim part of later A&B invention, not prior art
       2. Policy recognition that when A joins B, A brings his prior knowledge

### Analysis Analogous/Pertinent Prior Art

* + - 1. Analogous prior art (*In re Clay*/*In re Wood*)
         1. Art is from the same **field of endeavor** regardless of the problem addressed
         2. If not, whether the reference is **reasonably pertinent** to the particular problem the inventor is trying to solve
      2. Pertinent Prior Art (*In re Clay*)
         1. Reference from a different field that, because of the matter with which it deals, logically would commend itself to an inventor considering the problem
         2. The purposes of the invention & prior art are important in determining if the reference is reasonably pertinent (i.e. same problem, different field?)
      3. CAREFUL: Unresolved questions about patents on process for producing something if start/end materials are the same
         1. If you claim both product and process in patent, no problem – Issue occurs when patenting the process later
    1. **Cases**
       1. *In re Clay* (FC 1992)– Gel to fill dead space in tank. Prior art using gel in well bore is not reasonably pertinent. Tuned on differences in use 🡪 High temp vs. Ambient, High pressure vs. Atmospheric
       2. *In re Paulsen* – Patent on all laptop-style computers obvious over Japanese pocket calculators with hinged display

## § 103 Under the AIA

* + 1. **§ 103** – A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in § 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a PHOSITA to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.
    2. Considered at time of filing rather than date of invention
       1. Can have a profound effect in fast moving fields
    3. Statutory language includes § 102(e) art, but significant arguments about secret § 102(g) art that is not adequately “in public use”
    4. § 135 derivation, § 115 Oath and § 101 “whoever invents” creates something like § 102(f) derivation

## Historical

* + 1. *Cuno* – “Flash of creative genius”
    2. *Hotchkiss* – Make doorknobs from new material
       1. No invention if it requires only the skill of an ordinary mechanic
    3. Combination patents – An element of the combination must function in a new way
    4. Obvious to try doctrine
  1. **Policy**
     1. *Quid pro quo* – Monopoly is a huge reward, inventions should be a large step forward
     2. Anti-backsliding – Public doesn’t wake up infringing when doing what they’ve always done
     3. Social Costs – Increased litigation if all patents are blocking – Tons of cross-licensing
        1. Reduced incentive to patent
     4. Search Theory – If all improvements are incremental, search is costly & meaningless
     5. “Patent Thicket” – Granting protection on advances that would normally occur deprives prior inventions of their value (*Adams*)
     6. Timing – If the invention is an obvious response to exogenous change in social/technological circumstance, patent shouldn’t be grated if patentee is not responsible for those changes
  2. **Strategic Disclosure under § 103**
     1. Once invention is nonobvious, there is incentive to disclose information to prevent others from obtaining related patents
     2. Example: Disclosing information because your advantage lies elsewhere
        1. Pharma companies didn’t used to patent genes/proteins, but did significant research in the area looking for drug targets
        2. After patent, the company would dump all gene/protein data to the public so no one else can patent it
  3. **International Considerations for § 103**
     1. **Generally**
        1. Foreign activity is allowed to establish priority for inventor to get US patent
        2. Foreign activity is not allowed to establish prior art to defeat a US patent right
        3. Foreign filing can never be used to antedate a statutory bar (§ 102(b))
     2. **Policy**
        1. Strong bias against foreign activity except for publications/patents to defeat US
     3. **Paris Convention**
        1. § 119 – Application filed in another Convention country has the priority of the earlier filing if subsequently filed in US within 12mo.
           1. Not fatal if foreign application does not issue as a patent
     4. **TRIPS**
        1. § 104 – Allow patent applicant to establish date of invention using evidence of inventive activity occurring in any WTO member country
     5. **PCT**
        1. Gives up to 30mo. after initial filing in one country before beginning in-depth prosecution in another
           1. If PCT within 5mo 🡪 30mo (Chapter 2)
           2. If PCT within 12mo 🡪 20mo (Chapter 1)
        2. NOTE: This is the only treaty allowing a foreign filing to be treated as a domestic filing for § 102(e)
     6. **Cases**
        1. *Westinghouse Machine Co. v. General Electric Co.* (2nd Cir. 1913)
           1. Invention of railcar control system
           2. Armstrong shows conception in 1901, Files June 28, 1905
           3. Kando filed on July 3, 1906

Demonstrated reduce to practice in Europe before 1905 and agent with knowledge got to US in May, 1904

* + - * 1. Holding: Foreign knowledge only counts if in a patent

Armstrong can get a patent if he can show diligence from conception

* + - 1. *Thomas v. Reese* – Date of invention after foreign activity is agent arrival in US
      2. *Amcorp v. ITC* (2012) – Agent arrival = conception (affirmed by FC)
      3. *In re Hilmer* (CCPA 1966)
         1. Issue: Is information in a foreign filed application available under § 102(e)?
         2. Holding: No, only information in the domestic application and only from date of domestic filing

Foreign activity cannot be used under § 102(g) even if in application, could only be a publication or issued patent

* + - 1. AIA – All foreign and domestic activity is treated the same, no *Hilmer* distinction

# INFRINGEMENT

* 1. **Statute**
     1. **§ 271(a)** – Whoever without authority makes, uses, offers to sell, or sells a patented invention, within the US or imports into the US any patented invention during the term of the patent therefor, infringes the patent
        1. No scienter requirement, independent invention and use is still infringement
     2. **§ 251** – Reissue – Whenever any patent is, through error deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Director shall… reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced
        1. (d) must be done within 2y if enlarging a claim
     3. **§ 252** – Safe harbor for those that invent during the period before the reissue
     4. **§ 282** – A patent shall be presumed valid. Each claim is presumed valid independently of other claims even though dependent on an invalid claim. Burden on the party seeking to invalidate
  2. **Generally**
     1. Claim construction is a matter of law (*Markman*)
     2. That is reviewed *de novo* (*Cybor Corp.*)
     3. All the elements rule applies to literal infringement
     4. Doctrine of equivalents applies generally to non-substantive variations

## Literal Infringement

That which infringes if later, anticipates if earlier

BUT there is argument that this would not apply to secret prior use by 3rd party

* + 1. **Evidence**
       1. Intrinsic evidence – Claims, Specification, File wrapper (Prosecution history)
       2. Extrinsic evidence – Experts, dictionaries, etc.
    2. **Canons of Claim Construction**
       1. If a term is ambiguous, choose the interpretation that preserves validity
       2. Words in a claim are given their ordinary/customary meaning (*Vitronics*)
          1. Context trumps ordinary meaning (*Nystrom v. TREX* – “board” is wood)
       3. All words in a claim have meaning and are important
          1. Two claims, one specific, one general; the general claim claims more than the specific claim (*Phillips*)
          2. Rebuttable presumption that different words in claims mean different things
       4. Specific terms mean the same thing throughout the patent (*Phillips*)
       5. Patentee is free to be her own lexicographer (*Kopykake* – “photocopy machine” includes separate combination of scanner and printer in specification)
       6. Don’t import limitations from specifications (*Phillips*)
       7. Purpose or goal of the invention (*3M v. Johnson & Johnson* – “Lubricant” means “slippery lubricant” because this was the improvement/purpose over prior art)
       8. Disclaimer of subject matter in specification/prosecution history (through abandoned claims, see prosecution history estoppel below) (*Unique Concepts*)
       9. Product-by-process – Claims that process and the product produced by that process (*Merrill v. Yeomans*; *Abbott v. Sandoz*, *but see Scripps v. Genetech*)
       10. Means-plus-function – The *element* referred to is construed to cover only the corresponding structure in specification and equivalents thereof
           1. *Phillips* – Not means plus function if the claim refers directly to the means of producing the result (“Comprising baffles extending inwardly”)
    3. **Cases**
       1. *Merrill v. Yeomans* (SC 1877) – “Manufacture” refers to process of making
          1. Remedy for inadvertent omission is § 251 reissue
       2. *Phillips v. AWH Corp.* (FC 2005) – “Modular unit” with “internal steel baffles”
          1. All spec. baffles @ acute angle, infringer is perpendicular
          2. There is a broad claim, then narrow ones claiming acute angles 🡪 broad claim means something different 🡪 includes perpendicular baffles
       3. *Unique Concepts v. Brown* – Kit for making fabric wall covering, question whether it requires “right angle corner pieces”
          1. Cancelled original claim that would include 45 degree side pieces joined together 🡪 Disclaimed this, requires separate right-angle corner pieces
       4. *Abbott Labs. v. Sandoz Inc.* (Product-by-process) (FC 2009)
          1. Product by process claims allow claiming of the product as produced by the claimed method
          2. Newman Dissent – Claims are drafted this way because it is hard to describe new products – “Rule of Necessity” – burden on patentee to prove no better way to describe than by process
       5. *Scripps v. Genetech* – Known clotting factor, Scripps method of purifying from WB with antibodies 🡪 Holding that this claims the protein
          1. Blocks Genetech patent on making protein with recombinant gene technology
       6. *Wright Co. v. Paulhan* (SDNY 1910 – Hand, J.)
          1. Wright brothers’ airplane patent
          2. Wing warping to stabilize plane requires tail rudder counter steering
          3. Claim: “Means whereby said rudder is caused to present to the wind that side of the aircraft having less drag” – In specification, wing and rudder are tied together to automate counter steering
          4. Issue: Is it infringement if pilot takes the place of the rope?
          5. Holding: “Is caused” implies no – pilot may not turn the rudder 🡪 BUT if pilot prefers to lice, pilot will cause rudder to turn 🡪 infringed
       7. *Markman v. Westview Instruments, Inc.* (SC 1996) – No historical evidence of claim construction being a jury issue 🡪 no 7th Amendment problem. Provides uniformity across infringement cases – No offensive collateral estoppel

## Doctrine of Equivalents

* + 1. **Generally**
       1. Rule – To copy the principle or mode of operation described, although such copy should be totally unlike the original in form or proportion (*Winans v. Denmead*)
       2. **Tests**
          1. When the *function*, *means*, and *result* are the same, there is infringement
          2. Where machines are substantially the same, and operate in the same manner, to produce the same result, they must be in principle the same (*Gray v. James*)
       3. **Limitations – DoE cannot reach**
          1. Matter disclosed but not claimed (*Johnson & Johnson*)
          2. Matter within the prior art (*Wilson Sporting Goods*)
          3. Matter given up during prosecution (Estoppel)
       4. Strategy – Δ facing DoE infringement claim can assert invalidity under § 112 written description
    2. **Cases**
       1. *Winans v. Denmead* (SC 1854)
          1. Frustum cone shaped car for carrying coal – accused is octagonal
          2. No literal infringement – however infringement under equivalents because the device operates in the same way as the claimed device
       2. *Warner-Jenkinson v. Hilton Davis Chemical*
          1. Filtration system for dyes, operates between pH 6-9

Δ independently developed system at pH 5

Π had originally claimed all pH, but narrowed because prior art operated at 11, even though bottom limit was unnecessary, it was included 🡪 no infringement

* + - * 1. NOTE: There is a policy argument that DoE should be reserved for situations where Δ copied 🡪 didn’t save costs if you didn’t copy (Rejected in *Pennwalt v. Durand Wayland*)
  1. Prosecution History Estoppel **(Question of Fact)**
     1. **Analysis (*Festo*/*Warner-Jenkinson*)**
        1. Rule – Claims of patent are interpreted in light or proceedings in PTO
        2. Step 1: Has amendment narrowed the literal scope of a claim?
           1. Narrowing demonstrates what the claim isn’t, not what it is
        3. Step 2: Was the reason for amendment related to patentability?
           1. Narrowing claim to avoid prior art
           2. Narrowing to address a specific concern – obviousness – that would render the subject matter unpatentable
           3. Anything that rebuts the inference that the thing is not describably

i.e. amendment under § 112 for more precise description 🡪 estoppel

* + - 1. Step 3: Determine the scope of the subject matter surrendered
         1. Assume all territory between original claim and amendment is surrendered
         2. Patentee can rebut by showing it wasn’t for patentability

Unforeseeable – Change in technology PHOSITA couldn’t have known

Narrowing amendment doesn’t relinquish equivalents **unforeseeable** at time of the amendment **beyond a fair interpretation** of what was surrendered

Tangential – Amendment doesn’t pertain or relate to the disputed element

Some other reason – Limitation of language prevents drafting the claim to include equivalent subject matter

* + 1. *Festo v. Shoketsu* (SC 2002)
       1. 2 patents for improvements on a magnetic rodless cylinder
       2. Both amended patents added new limitation – Sealing rings, each with lip on one side, one indicated sleeve must be magnetizable material
       3. DoE
          1. Without DoE unimportant and insubstantial substitutes for certain elements could defeat the patent, and its value to inventors could be destroyed by simple copying
       4. NOTE: Preferable to frame the argument as a direct infringement rather than risk PE of a DoE claim

## Indirect Infringement

1. Is there direct infringement by **someone**?
   1. MUST do infringement analysis FIRST!
2. Substantial non-infringing use? 🡪 no Contributory
3. Instruct how to infringe, or infringement inevitable? 🡪 Induced, otherwise no
4. Must have scienter!
   * 1. **Elements**
        1. Actus Reus – There must be a literal or equivalent infringement of the patent
        2. Mens Rea – Δ must know that there is a patent and that it is being infringed
           1. Good faith belief you’re not infringing is not a defense (*Sandisk v. Lexar*)
           2. Elements

Knowledge of the activity that is alleged to be infringing

Knowledge that there is a patent

* + - * 1. Both can be satisfied under “willful blindness” (*Global-Tech v. SEB*)
    1. **Analysis** – Start with § 271(c) limited by substantial non-infringing use, then go to § 271(b) and argue Δ is teaching the infringement
    2. § 271(b) – Induced Infringement – Whoever actually induces infringement of a patent shall be liable as an infringer (*See* ***especially*** *C.B. Bard v. Advanced Cardio.*)
       1. *Wallace v. Holmes* – Patented oil lamp sold without the chimney knowing the customer would have to add a chimney to make it operable 🡪 Infringement
    3. § 271(c) – Contributory Infringement – Whoever offers/sells within US or imports a component of a patented machine/manufacture/combination/composition, or a material or apparatus for use in practicing a patented process, **constituting a material part of the invention**, **knowing** the same to be especially made/adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for **substantial non-infringing use**, shall be liable
    4. **Cases**
       1. *Aro Manufacturing Co. v. Convertible Top Co.* (SC 1964)
          1. Combination patent – convertible top designed patented mechanism
          2. Δ-Aro made a replacement fabric for the top
          3. Fabrics could only fit one top 🡪 no non-infringing use (§ 271(c))
          4. Must be knowing infringement

Holding: No infringement until after Δ was informed that Ford’s use of the patented mechanism was infringing

* + - 1. *C.B. Bard v. Advanced Cardiovascular* (FC 1990)
         1. Δ sells a catheter that is capable of infringing Π’s patented method
         2. There are several non-infringing uses for the catheter 🡪 no § 271(c)
         3. § 271(b) – No liability w/out specifically teaching infringing use
         4. § 287(c) – Safe harbor for infringing medical practitioners 🡪 no remedy, but provides infringement to pursue contributory/induced infringement

## Joint Infringement

* + 1. *Akamai Tech. v. Limelight Networks* (FC 2012)
       1. Akamai patent for delivering web content – Δ does most of the steps in the *process*, then customer does final step 🡪 no 1 person infringes as with a product
       2. McKesson patent allowing doctors/patients to communicate directly over the net
       3. **Elements**
          1. Must show that Δ knew of the patent
          2. Δ induced performance
          3. The steps of the patent were actually performed though there is no single person infringing the process
       4. Newman Dissent – Use joint and several liability from tort
          1. Australia uses a concerted action requirement – All pursuing the same goal

## Defenses to Infringement

### Reverse Doctrine of Equivalents

* + - 1. Rule – Δ uses the function, achieves the result, but in a substantially different way
      2. *Westinghouse v. Boyden Power Brake* (SC 1898)
         1. Westinghouse patent uses train pipe & auxiliary reservoir for air
         2. Boyden uses same concept with superior mechanism
         3. Reasoning

Can’t patent the function of the machine

Π is stuck with his single embodiment because Π’s design required substantial modification to be efficiently operable

* + - 1. *Scripps Clinic & Research Foundation v. Genetech Inc.*
         1. *Parke-Davis* claims in Scripps patent on blood clotting factor purified with antibodies 🡪 Product by process claim pre-*Abbott*
         2. Genetech successfully clones gene/produces in bacteria purified by antibodies
         3. FC holds sufficient defense that recombinant product was far superior to the Scripps product and therefore should not be considered infringing
      2. Policy
         1. Hold up problem – When the “pioneer” patent contributes much less than the later development, there is a hold up problem compared to when there is more equivalent contribution

### Experimental Use

* + - 1. Rule – So long as the act is in furtherance of the alleged infringer’s legitimate business and is not solely for amusement, to satisfy idle curiosity, or for strictly philosophical inquiry, the act doesn’t qualify for the very narrow and strictly limited experimental use defense (*Madey*)
         1. Hatch-Waxman Act - (Cite *Integra* for phama if trying for new use)

Adds patent term restoration for FDA approval period

§ 271(e) – Immunizes tests of drugs, medical devices, etc. so long as tests are used to generate data for FDA regulatory activities (*Eli Lilly v. Medtronic*)

* + - 1. *Madey v. Duke University* (FC 2002)
         1. Free electron laser developed at Stanford, Π brings to Duke then leaves and sues Duke for continuing to use it later
      2. *Roche Products v. Bolar Pharmaceuticals*
         1. No experimental use for generic manufacturer during bioequivalence tests
         2. Policy – Big part of exclusivity for branded is used getting FDA approval
      3. *Merck v. Integra Lifesciences*
         1. No experimental exception for Δ testing product **to determine a new use**
         2. This was pre-clinical use in rodents 🡪 Not Hatch Waxmann
         3. Newman Dissent – Experimentation during exclusivity spurs new innovation

### First Sale

* + - 1. Rule – The purchaser acquires the right to use the invention for any purpose that the invention can be used – After the sale, the patentee loses the right to limit how people use the invention (Limited by reconstruction doctrine)

Use restrictions must be **clear** and **within the scope of the patent**

* + - * 1. *Compare Adams with Mallinckrodt*
      1. Analysis (*Mallinckrodt*)
         1. Use restriction must be reasonably within the patent grant

Must relate to the subject matter within the scope of the claims

* + - * 1. Patentee can’t venture beyond the grant into anticompetitive behavior

Analysis under the Rule of Reason if anticompetitive effects are possible

* + - 1. *Adams v. Burke* (SC 1873)
         1. Patented improvement on coffin lid
         2. Assigned rights to company to sell within 10mi radius
         3. Δ bought and buries someone outside 10mi
      2. *Mallinckrodt v. Medipart* (Patentee can limit license subject to notice) (FC 1992)
         1. Company is refurbishing single use only patented medical product
         2. Device is explicitly labeled as single use
         3. “Patent owners should not be in a worse position by virtue of the patent right to exclude, than owners of other property used in trade”

Single use only restriction based on safety concerns is not patent misuse

* + - * 1. NOTE: Patentee could be liable for failures in QC, effects on reputation, etc.
      1. *LG Electronics v. Hitachi* (Interprets SC *Quanta* decision) (NDCA 2009)
         1. Patented process is subject to the first sale doctrine
         2. Once there is an authorized sale of an article that substantially embodies a patent 🡪 exhausts the patentee’s rights and prevents patentee from invoking patent law to control the post-sale use of the article
    1. Repair **(Question of Law)**
       1. Factors
          1. Look at the life of the machine as a whole vs. the machine itself
          2. Importance of the part
          3. Cost of the part
          4. Understanding how people utilize the invention
       2. *Aro Manufacturing Co. v. Convertible Top*
          1. Repair is only permissible if the product is licensed to start with
          2. Reconstruction would be infringing, whereas repair is permissible
       3. *Wilson v. Simpson* – Δ can replace a machine’s blades that periodically wear out
       4. *Sandvick Aktiebolag v. E.J. Co.* – Can’t re-tip patented drill, but can re-sharpen

### Inequitable Conduct (*Therasense v. Becton Dickson and Company*)

* + - 1. Elements
         1. During patent prosecution
         2. A person owing a duty of candor to the PTO (Inventor, patent agent/attorney)
         3. Failed to disclose information, or made a misstatement to the PTO
         4. Materiality – The information or misstatement was material to the prosecution of the patent (Preponderance of the evidence)

But-for causation – The misrepresentation is the but-for cause of the patent issuing

Submission of false affidavit is automatically material

Deliberately planned and carefully executed schemes over-ride materiality

* + - * 1. Intent to Deceive – The nondisclosure or misstatement was made with the intent to deceive the PTO into granting the patent (C&C evidence)

Must be deliberate decision to withhold material reference

No sliding scale no matter how material

Can be inferred from (1) actual knowledge of withheld information, (2) actual knowledge of its but-for materiality, and (3) deliberate decision to withhold – must be the single most reasonable inference

* + - 1. § 282 – Supplemental Examination
         1. Patent owner submits, post-grant, any additional information believed to be relevant to the patent
         2. PTO determines whether information raises a substantial new question of patentability warranting reexamination
         3. Precludes inequitable conduct defense based on information that was the subject of a supplemental examination request
         4. Limitations

Must submit before receiving pleading or ¶4 notice alleging inequitable conduct with particularity and

Must be concluded before the patent owner filed infringement action

* + - 1. Spot the issue
         1. Nondisclosure of prior art later found in patent owner’s company files
         2. Nondisclosure of info from patent prosecutions occurring in other countries
         3. Nondisclosure of other applications co-pending at PTO
         4. Statements in affidavits about data which may find some arguable inconsistency in some other data residing in the company’s files
         5. Nondisclosure of relationship between affiant and patentee
      2. Remedy
         1. Can get attorney’s fees
         2. Prosecuting attorney can be disciplined by the PTO
         3. **Invalidates the entire patent**

### Territoriality

* + - 1. § 272 – No infringement for any “any vessel, aircraft or vehicle of any country which affords similar privileges to vessels, aircraft or vehicles of the US”
         1. *Brown v. Duchesne*

Patented sailboat part on French boat installed in France

Π sues when boat is docked overnight in Chicago

Holding – Only infringement if Δ makes, uses, or sells in the US. Overnight docking in US is not sufficient.

* + - 1. § 271(f) – (1) If you supply any component in the US that actively induced combination abroad or (2) if you supply a component in the US with no substantial non-infringing use for assembly abroad 🡪 liability
         1. *Microsoft v. AT&T*

Patented program for encoding speech incorporated into Windows

Δ sends master copy of Windows abroad, it is duplicated and used to install on computers shipped around the world

Computers then sold in US infringe, sold abroad cannot be enforced

* + - * 1. *Cardiac Pacemakers v. St. Jude’s* – § 271(f) doesn’t apply to process patents
      1. § 271(g) – US process patent holders can exclude from the US market products made overseas by their patented processes
         1. *Bio-technology General v. Genetech* – Can sue importers of hGH produced by patented method
         2. Limitations

*Eli Lilly v. American Cyanamid* – No § 271(g) liability if product is materially changed

Patented process for “Compound 6” used in process to make non-patented Cefaclor 🡪 no liability

*Bayer v. Housey* – Must be a tangible product

Ran patented experiments abroad then brought data to US

*NTP v. Research in Motion* – Divided infringement

RIM had part of the email system in Canadia

FC held that *system* claims were infringed because customers were using the *system* in the US; *process* claims were partially in Canadia 🡪 no liability

### Double-Patenting

* + - 1. Rule – Judicial rule that patentee cannot have two patents on the same design
      2. OTDP – If patent #2 isn’t literally the same, but is an obvious variation, invalidity is avoided with a terminal disclaimer
      3. *Miller v. Eagle Manufacturing* (SC 1894) – 2 patents on same plow claiming different properties of improved spring design

### Misuse/Antitrust Violations

* + - 1. Generally – Attempts to extend the patent rights beyond the scope or duration of the patent
         1. Cross-licensing restrictions
         2. Retail price maintenance (*But see Leegin*)
         3. Post-expiration royalties
         4. Grant-backs – Promise to grant-back any improvement to the device
         5. Package licensing
         6. Tying
      2. Procompetitive Justifications
         1. Metering – Build cost of license into tied product

Efficient resource allocation

* + - * 1. Quality control/Reputation maintenance
        2. One monopoly price theory
      1. § 271(d) – Patentee may
         1. (1) Derive revenue or (2) license another to perform acts that would be contributory infringement if not authorized
         2. (3) Enforce patent rights against infringement or contributory infringement
         3. (4) Refuse to license or use any rights to the patent
         4. (5) Condition the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned
      2. Patent Misuse
         1. *Texas Instruments v. Hyundai* – Holding § 271(d)(5) eliminates *per se* rule against tying, even if patentee has market power
         2. *Illinois Tool Works v. Independent Ink* (SC 2006) – No assumption of market power if you have a patent – Tying analyzed under Rule of Reason
         3. *In re Recombinant DNA Technology* – § 271(d)(5) applies to tie-ins and tie-outs equally
         4. Tie-In – Require use of unpatented product
         5. Tie-Out – Require exclusion of a competitor’s product
      3. Refusal to Deal
         1. *Image Technical Services v. Eastman Kodak* – Kodak refused to sell replacement parts to ISOs that do copier repair – rebuttable presumption of no duty to deal for patentee
         2. *Special Equipment v. Coe* – SC-USA holds patent can’t be denied due to suspicion that patentee will not license or practice the invention
         3. *See also Trinko* – No affirmative duty to deal with competitors

### Miscellaneous Other Defenses

* + - 1. Prior user right (trade secret) – § 273(b) – Prior user right on business methods (now all patents)
      2. Medical Practitioner Immunity – § 287(c) – No remedy against medical practitioners, preserves infringement for enforcing induced/contributory infringement actions
      3. Government
         1. Federal government can use patented device/method but must pay reasonable royalty/just compensation (Eminent Domain)
         2. State government doesn’t pay royalty (11th Amendment), but can be enjoined (*See Ex parte Young* 🡪 can sue/enjoin the agent of the state individually)

# REMEDIES

## Injunctive Relief

* + 1. § 283 – Injunctive relief– The several courts having jurisdiction of cases under this title may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable

### Preliminary Injunction

* + - 1. Factors (*Amazon v. Barnes and Noble* – “One-Click” checkout)
         1. A reasonable likelihood of success on the merits

Π shows, in light of presumptions/burdens, that patent = valid/infringed

* + - * 1. Irreparable harm if an injunction is not granted

If patentee’s only income is licensing, no irreparable harm

* + - * 1. Balance of hardships tips in Π’s favor
        2. Injunction’s favorable impact on public interest
      1. Δ need only show the patent is vulnerable, no need for C&C evidence
      2. Policy
         1. Congress has considered, but never enacted, compulsory licensing
         2. P.I. occurs early in litigation when there may be information asymmetry
         3. FC reasoning that courts must grant/enforce injunction for patents to be meaningful – otherwise people can simply infringe and litigate for license
         4. Temporary injunctive relief – *PPG Indus. V. Guardian* – DC is free to tailor injunction, can allow temporary infringement while Δ seeks non-infringing alternative in some circumstances

### Permanent Injunction

*eBay* changes the presumption away from granting injunction, instead puts in place the factor balancing test

* + - 1. Factors (*eBay v. Mercexchange*)
         1. Π suffered irreparable injury
         2. Monetary damages are inadequate to compensate
         3. Considering balance of hardships between Π/Δ, remedy in equity is warranted
         4. Public interest wouldn’t be disserved by permanent injunction

Health concerns, disruption to consumers of enjoined products, impact on infringer’s employees/community vs public interest in spurring innovation

* + - 1. *eBay* Kennedy Concurrence: Need to consider contribution of the patent, small parts in a larger, more valuable invention leads to hold-ups. May need to ID non-practicing patent holders
      2. Policy
         1. Big deterrence problem without granting injunctive relief
         2. Hold-up problem when injunction is granted for small contribution
         3. Patent trolls – Consider no injunction if patentee has waited until infringer commits significant resources 🡪 Latches/Statute of limitations
         4. Problem is balancing harsh injunctions (trolls encouraged) with giving monetary damages (encourages infringe first, litigate later)

## Monetary Damages

* + 1. § 284 – Damages – Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer together with interest and costs as fixed by the court. The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances
    2. **Entire Market Value Rule** – Royalty is percentage of entire patented product, even if only 1 feature of patented product is infringed
       1. Is the feature absolutely necessary for the product to function? 🡪 EMVR

### Ongoing Royalties/Reasonable Royalties

* + - 1. Factors
         1. The market for the patent has/will expand or contract
         2. Likelihood the infringer would explore other markets
         3. Availability of non-infringing alternatives
         4. Capacity of Δ to design around the patented technology

Cost for Δ to design around

Generally: Reasonable royalty is thought to be less than what would come from true open-market negotiation

* + - * 1. Expert testimony of qualified experts
      1. *Georgia Pacific* Factors
         1. Royalties from licensing to others
         2. Rates paid by licensee for other comparable patents
         3. Nature/scope of license (exclusive? Restricted territory/customers?)
         4. Patentee license to others or refuse to license/limited licenses?
         5. Commercial relationship between Π/Δ – competitors? Vertical/horizontal?
         6. Effect of selling patented item in promoting sales of other products of Δ

The value of the patented item as a generator of non-patented sales

* + - * 1. Duration of patent/term of the license
        2. Profitability, commercial success, popularity of the product
        3. Utility of patented invention over previous methods of accomplishing same
        4. Nature of the invention; character of commercial embodiment; benefits to those that use the invention
        5. Extent that Δ has made use of the invention/value of the use
        6. Portion of profit/price customarily in trade for the use of similar inventions
        7. Portion of profit credited to invention vs. non-patented elements

Any manufacturing process, business risks, or improvements by Δ

* + - * 1. Expert testimony
        2. Amount Π/Δ would have agreed upon @ time infringement began if both were trying to make a licensing agreement
      1. *Lucent Technologies v. Gateway* – Overturned jury award of lump royalty payment not supported by substantial evidence

### Lost Profits

Limitations:

Must show that un-patented items bear functional relationship to the patented device

Availability of non-infringing substitutes will undercut damages 🡪 leans more to reasonable royalty. This is a product of but-for arguments for damages – Δ can argue what they *would have done* also

* + - 1. *Panduit* Test requires Π to establish
         1. Demand for the patented product
         2. Absence of acceptable non-infringing substitutes
         3. Manufacturing and marketing capability to exploit the demand
         4. The amount of profit Π would have made
      2. *Rite-Hite Corp. v. Kelly Co.*
         1. Π gets damages for lost profit on *both* patented and unpatented devices
         2. Test – Had Δ not infringed what would Π have made?

Damages include all sales lost but-for the infringement

Limitation is “proximate cause” or “foreseeability”

* + - 1. Non-Infringing Substitutes
         1. *Grain Processing Corp. v. American Maize Products*

Denied lost profit, but gave royalty, when Δ proved non-infringing substitute was available

Holding: Substitute needn’t be on the market/for sale during infringement

Substitute must be reasonably interchangeable in use

NOTE: Argue willful infringement if Δ knew of substitute and infringed anyways

* + - 1. Market Share Rule
         1. *State Industries v. Mor-Flo* – Lost profit based on market share

Award Π incremental profit on foam-insulated water heaters reflecting percentage of sales lost because of Δ’s infringement

NOTE: It was unclear how much of the market patentee would have captured

Ask: What percentage of the infringer’s sales would have bought from patentee? 🡪 remove infringer from market, reapportion percentages, then discount infringer’s market by that percentage

Lost profits on those sales, reasonable royalty for everything else

**THREE KEY POINTS FOR NON-INFRINGING SUBSTITUTES!!**

1. Timing – How fast can Δ switch to the product?
2. Acceptability – Reasonably interchangeable in use?
3. Expense – Could Δ price the non-infringing alternative competitively with the patented invention?

### Willful Infringement

* + - 1. § 284 – The court may award increased damages up to 3 times the amount found or assessed
      2. *Read Corp. v. Portec. Inc.* – Factors
         1. Whether the infringer deliberately copied the ideas or design of another
         2. Whether the infringer investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed
         3. The infringer’s behavior as a party to the litigation
         4. Defendant’s size and financial condition
         5. Closeness of the case
         6. Duration of Δ’s misconduct
         7. Remedial action by the Δ
         8. Δ’s motivation for harm
         9. Whether Δ attempted to conceal its misconduct
      3. *In re Seagate Technology*
         1. Party’s assertion of advice of counsel defense to W.I. doesn’t extend the waiver of attorney-client privilege to communications with trial counsel

Concerns about undercutting adversarial process, attempt to make the test as objective as possible, best defense is still advice of counsel, questions remain about in-house counsel

* + - * 1. Proof of W.I. permitting enhanced damages requires objective recklessness. No affirmative duty of care/obligation to seek opinion of counsel

Issues: Isn’t is PHOSITA’s opinion that should count, damages were getting out of control, state of mind issue, problem with the motivations of these attorneys that give an opinion for a fee

* + 1. **Other Damages**
       1. Attorney’s Fees
          1. General rule is that finding of willful infringement (Π-wins) or inequitable conduct (Δ-wins) gives opposing party attorney’s fees
          2. Otherwise if the losing party is a total dick during litigation, attorney’s fees can be awarded
       2. Pre-judgment interest
          1. From the time Δ stops infringing to the end of litigation interest can accrue
          2. *GM v. Debex*

Patent on method for extruding foam for car bumpers

Trial takes 27years

SC-USA awards interest: $8mil in damages, $11mil on top of that in interest