

## Patent Law

- Slides for Module 4
- Anticipation, Statutory Bars and Novelty

4-1

## Novelty and Statutory Bars (patent defeating events) in §102

- Novelty
  - sections (a), (e) & (g)
  - the **age** of the reference is earlier
  - “keyed” to the date of invention (but note location of invention is usually relevant)
  - “first to invent” priority system
- Statutory Bars
  - sections (b) & (d)
    - §102(d) - US application not filed w/in 1 year of foreign application on the same invention, which foreign application ultimately ripens into a foreign patent right before the US filing date
      - In other words, if one files in a foreign jurisdiction, after 12 months pass, one is at risk of being barred in the US if one does not file in the US before the foreign patent right issues
    - if I delay I am **barred**
    - “keyed” to the filing date
- Other patent-defeating events
  - abandonment - §102(c)
  - derivation - §102(f)

4-2

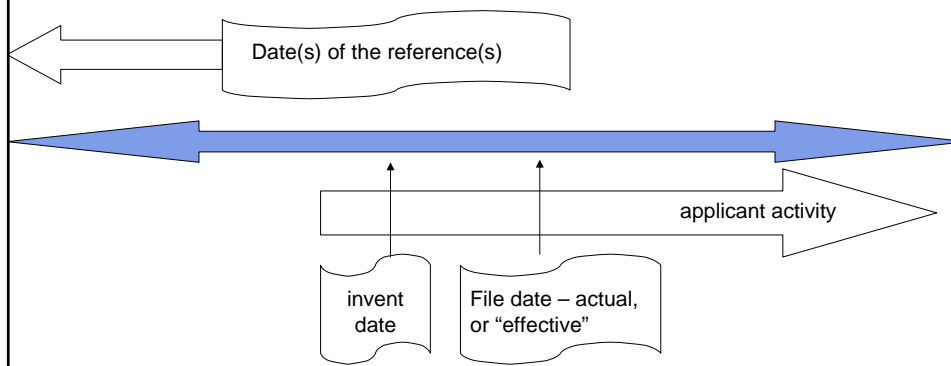
## Novelty / Statutory Bar– structure of analysis

- Two step inquiry
  - First, assess the [current] state of knowledge known to the art as a basis for comparison
    - Must determine which sources from the universe of available knowledge are pertinent to the inquiry
    - Pertinent sources are defined by the patent act
    - “Prior Art” is the sum of these sources
  - Second, ask whether any prior art anticipates
    - Anticipate means:
      - each and every element of the claim-at-issue must be disclosed in a single, **enabling** reference, use, etc.
- A reference, use, etc., is enabled for **anticipation** purposes when it teaches a PHOSITA the manner and process of making and using the subject matter in the reference covered by the claim (cf. § 112 “enablement”).

4-3

## Dates of Invention and Prior Art References, Uses, Etc.

- “anticipating” references, uses, etc., are part of the analysis for both novelty and statutory bar patent defeating events
- What is an “anticipating” reference, use, etc.? (answered different ways that mean the same thing)
  - The reference, use, etc., “teaches” or “embodies” all the elements of the claim
  - The claim “covers” what is disclosed by the reference, use, etc. (the disclosure, use, etc., must be enabled for anticipation purposes)
  - The claim (or “count”) reads upon (or “reads on”) the reference, use, etc.





4-4

## §102(a)

“the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent”

102(a) – if the prior art reference occurred prior to the date of invention of what is claimed, then the claim is not novel if that reference anticipates the claim (“teaches” all the limitations/elements of the claim).



	knowledge or	Must the knowledge be “publicly known” (cf. 102(b))?
	used by others	One use is sufficient, even if remote. But must the users know of the operative principle of the invention?
	patented or	A grant of exclusive rights, evaluated for what is claimed. Must the patent be “informing”? Must the disclosure be explicit? Must the operative principle of the invention be appreciated by the previous inventor?
	printed publication	Public accessibility – the document was made available to the extent persons interested and ordinarily skilled in the art, exercising due diligence, could locate it.

4-5

## §102(b)

“the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States ”

102(b) – if the applicant does not file within one year of the date of the prior art reference or activity, then the patentee is barred from applying for the patent.

	in public use or	“Experimental use” exception [different from “experimental use” exemption to infringement]. Compare patentee vs. third-party uses.
	on sale	Commercial offer for sale and invention is “ready for patenting.” Cf. patentee vs. third-party sales.
	patented or	Is the test for what is a “patent or printed publication” the same under 102(a) & (b)?
	printed publication	

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## Claims - Anticipation

When a claim “reads-on” a prior art reference, that reference anticipates the claim.

Put another way, whenever a prior art reference teaches (explicitly or implicitly via the inherency doctrine) or all of the elements/limitations expressed by the claim, that prior art reference anticipates the claim

	Anticipating Reference (assume it's prior art)??
A seating apparatus, comprising : 1. A (a horizontal base; and) B (three legs each having one end connected to the bottom of said horizontal base); and C (said connection between said legs and bottom of said horizontal base being a slim metal piece partially traversing some of said leg and said base, <b>wherein the metal of said slim metal piece is brass, steel, iron, or tin</b> )	A drawing disclosing a stool with: A (a perfectly square seat) B (four legs) C (legs connected to the seat with steel nails)
Same as above	A plant stand with: A (an oval base) B (two legs and a “wall”) C (legs connected to the base with glue) D (a “back” like a chair)

4-7

## Claims – Obviousness (103)

Unlike anticipation, to allege that a patent is “obvious” does not require that all the elements/limitations be in a single anticipating reference. Typically, the elements/limitations are spread over multiple references (but can be in one). The legal argument is that a PHOSITA would have found it obvious to combine the elements/limitations from multiple references or to adapt the disclosure in a single reference.

Is the invention obvious in light of the patent in view of the stool sold in the US?	A seating apparatus, comprising : 1. A (a horizontal base; and) B (three legs each having one end connected to the bottom of said horizontal base) and C (said connection between said legs and bottom of said horizontal base being a slim metal piece partially traversing some of said leg and said base, <b>wherein the metal of said slim metal piece is brass, steel, iron, or tin</b> )
A patent disclosing a stool with: A (seat) B (three legs) C (legs connected to the base with glue)	
A stool sold in the US with: A (seat) X (two “walls” on either side) Y (walls connected to the seat with metal screws)	

4-8

### Titanium Metals Corp v. Banner (Fed. Cir. 1985)

- Claims:
  - Titanium [Ti] base alloy consisting essentially by weight of **about** [see chart], balance titanium, said alloy being characterized by good corrosion resistance in hot brine environments

	<b>C1 (indep.)</b>	<b>C2 (dep.)</b>	<b>C3 (dep.)</b>
Nickel [Ni]	0.6 – 0.9%	same	0.8%
Molybdenum [Mo]	0.2 – 0.4%	same	0.3%
Iron	0 – 0.2%	0 – 0.1%	0 – 0.1%

- PTO (both examiner & Board) rejections – based on Russian Article
  - C1 & C2 – anticipated by the article
  - C3 – obvious from the article (obviousness is §103)
    - §103(a):
      - “[a] patent may not be obtained though the **invention is not identically disclosed or described as set forth in section 102 of this title**, 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 at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains . . . .”
      - The §103(a) language informs the meaning of anticipation – “identically”

4-9

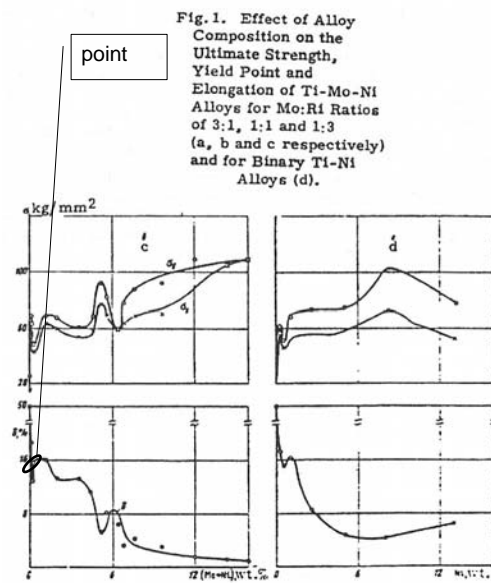
### Titanium Metals Corp (“TMC”) v. Banner (Fed. Cir. 1985)

- Only §102 rejections are at issue on appeal
- What is the sole reference and is it prior?
  - Date of “invention” – at least 7/25/1975
    - Note that this application is a “CIP” with a parent filing date of March 29, 1974
  - Date of reference (Russian Article) – 1970
- So, if reference (article) is prior, the question is whether it discloses the elements/limitations of the claim
  - “Since the article does not specifically disclose such an alloy in words, a little thinking is required about what it would disclose to [a PHOSITA]”

4-10

## Titanium Metals Corp v. Banner (Fed. Cir. 1985)

- PTO contended that a sole point disclosed the claimed combination
  - Mo:Ni at 1:3 is indicated on the graph at 1% for Mo + Ni by the point indicated
  - This equates to Mo & Ni values within the claimed ranges of C1 & C2
- Further, the PTO contended:
  - the fact that a property or end use (as contemplated by applicant) was not recognized by the article is of no consequence
  - the authors of the article likely made the alloys to obtain the graph points



4-11

## Titanium Metals Corp v. Banner (Fed. Cir. 1985)

- Holding
  - District court fails to answer the question – is the claimed alloy new?
  - Given the date of the reference, either §102(a) or (b) applies here (5 years prior)
  - The Federal Circuit agrees with the PTO as to the disclosed data point indicating the presence of Mo and Ni in the claimed ranges
    - Enablement only requires that a PHOSITA be able to make the alloy
    - The article does not discuss making the alloy, it merely gives the ingredients and proportions, but this is not a problem because this is all a PHOSITA would need to know
    - It is of no import that the application teaches some things that the article does not (corrosion resistance, limits of ranges to keep this property)
      - “What do the claims cover?” and “Is what they cover new?”
    - When a claim covers several compositions, via ranges or otherwise, the claim is anticipated if even one composition or value in the range is in the prior art

4-12

## Anticipation – other points

- Anticipation is a “four corners” defense
  - If the claimed invention is taught within the four corners of a single reference, it is anticipated.
    - Anticipation does not consider “equivalents” to the teachings of the reference at issue. Does this matter?
  - What is a “single” reference?
- Genus / Species “chemical” cases
  - Special problem when inventor claims some subset of a known broader range – species chosen from genus
  - Applicant must demonstrate that the species has improved or distinct properties over other members of the prior art genus
    - 6 factors

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## Anticipation – Other Points

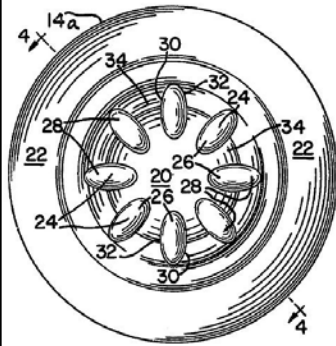
- A prior art reference need not meet the “utility” standard
  - So if a compound is disclosed without utility, then a patent application meeting utility is still invalid if it claims merely the compound
  - But, can claim compound for specific use
  - Is this sensible?

4-14

### Inherency – Continental Can (Fed. Cir. 1991)

- '324 patent for Ribbed bottom structure for plastic container
- Bottom has flexibility for better impact resistance, yet sufficient rigidity to resist deformation under internal pressure

Fig. 2



1. A container having	
a sidewall and	A
a bottom structure closing the container at an end portion of the sidewall,	B
the outer surface of the bottom structure comprising a central concavity,	C
a convex heel surrounding the concavity and merging therewith and with the sidewall end portion, the lowermost points of the heel lying in a common plane, and	D
a plurality of ribs interrupting the outer surface of the concavity and distributed in a symmetrical array,	E
each rib extending longitudinally in the direction of the heel and downwardly from an inner portion of the concavity,	E.1
whereby the outer end portion of each rib is lower than the inner end portion thereof,	E.2
<i>characterized by the feature that the ribs are hollow</i>	E.3

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### Inherency – Continental Can (Fed. Cir. 1991)

- District court held patent invalid for anticipation
  - It defined “hollow” as the inside contour of the ribs generally following the outside contour thereof (parties agreed to this definition)
    - How else might one define “hollow”
- Federal Circuit reverses
  - Conflicting experts along the “party lines” as to whether the prior art patent ribs were hollow
    - Prior art patent inventor testified that conventional blow molding would make them hollow as a natural or automatic result of the blow molding process
  - Claim construction of the term “hollow”

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**Claim Interpretation – Sources / Canons**

<b>“hollow”</b>		
District Court: “the inside contour of the ribs generally follows the outside contour thereof”		
<u>Source</u>		
Plain meaning	1. Having a cavity, gap, or space within: <i>a hollow wall</i> . 2. Deeply indented or concave; sunken	American Heritage Dictionary
Specification	Distinguished the precise prior art patent asserted as anticipating, on the basis that the prior art patent’s ribs were filled, not hollow	The specification can be used to enlighten the court as to the meaning of a claim term
Prosecution history	None provided here	Effect on claim construction?
Extrinsic Evidence	Expert testimony could go to what “hollow” means to a POSITA, here it was directed to informing the fact finder in making a determination as to whether the prior art reference’s ribs met the definition of hollow	Proper to resort to extrinsic evidence?

**Inherency – Continental Can (Fed. Cir. 1991)**

- degrees of hollowness?

FIG-5A

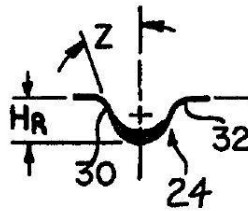
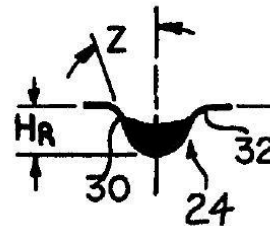
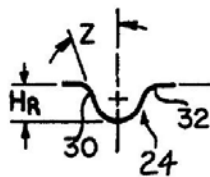


FIG-5A

FIG-5A



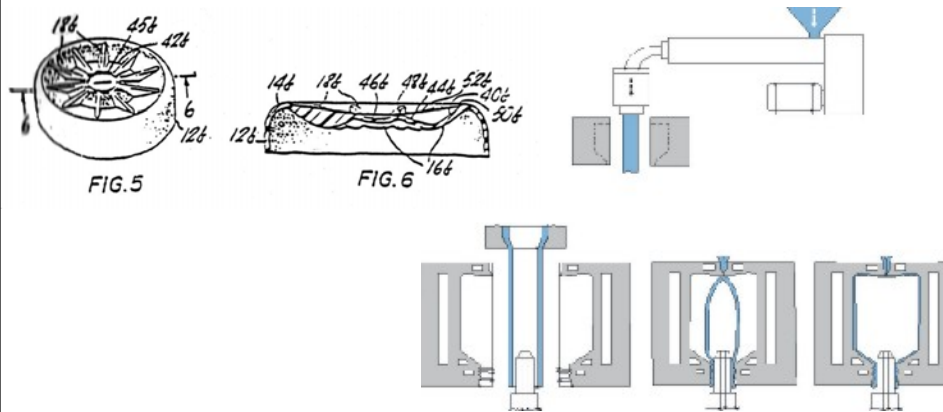
### Inherency – Continental Can (Fed. Cir. 1991)

- Defendant (Monsanto) argues that the hollow ribs were inherently produced by the prior art patent (Marcus) – regardless of how shown in the patent
  - Injection blow molding would inherently produce hollow ribs
    - As evidence of this, Monsanto points to another patent, the Conobase '324 patent – where evidently hollow ribs result from blow molding
- The evidence to prove that a characteristic is inherently present “must make clear that the missing descriptive matter is **necessarily present** in the thing described in the reference, and that it would be so recognized by [a POSITA]”
  - Probabilities or possibilities are not enough
  - The “mere fact that [it] may result . . . is not sufficient”
- Justification for the inherency doctrine
  - Provides some flexibility to the anticipation rule when the common knowledge of technologists is not recorded in the reference

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### Inherency – Continental Can (Fed. Cir. 1991)

- Why would injection blow molding “necessarily” produce hollow ribs?
  - This would be the “natural result flowing from the operation as taught” by the reference
- Continental disputes whether hollow ribs “necessarily” follow, so there is a GIMF, and S/J should not have been awarded to Monsanto



4-20

## Inherency – Schering v. Geneva (Fed. Cir. 2003)

- Patents on anti-histamines
  - Asserted '233 patent covers antihistamine loratadine (Claritin)
  - Advantage of not causing drowsiness
  - “Evergreened” the initial patent by claiming the metabolite of Claritin
    - A “metabolite” is a compound formed in patient’s body upon ingestion of compound – recall Prometheus v. Mayo case
    - Since nobody else can conduct experiments with Claritin until it is sold on the market, Schering can sit back and do research towards the end of the FDA approval process on the base drug
    - Original filing (June 1980); metabolite filing (April 1987)
- The original patent will be prior art to the newly filed patent
  - However, the ‘233 patent does not expressly disclose the metabolite
  - But does the mere disclosure of a person taking Claritin mean that the metabolite is inherently disclosed?

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## Inherency – Schering v. Geneva (Fed. Cir. 2003)

- Does the PHOSITA need to recognize that structure or a method behaves according to a law of nature for an inherency finding?
  - (1) Rader relies on *In re Cruciferous Sprout* and other cases that say the inventors or prior art need not “appreciate the results”
    - But does this imply that a PHOSITA need not recognize it? What about Continental Can? Arguably, Rader misreads that case.
  - (2) Dismisses “accidental, unwitting, and unappreciated” anticipation exception
  - (3) States that inherency may cover all the elements of the claim
  - Casebook: The first person to discover the necessity of oxygen to fire could not claim “a method of making a fire by lighting a flame in the presence of oxygen”
    - Argues that this method would be anticipated by prior occasions of making fires, regardless whether the “PHOSITA” making the prior fires understood that oxygen was necessary.
    - Does this example conflate section 101 and 102?

4-22

### **Inherency – Schering v. Geneva (Fed. Cir. 2003)**

- Key quotation: “That which would literally infringe if later in time anticipates if earlier.”
  - That is so, but the prior art reference must be “enabling” to a PHOSITA. Again, Rader (and some prior cases he cites) seem to get it wrong.
  - Rader is correct that “actual reduction to practice” of the prior art subject matter is not required.
  - But is Rader correct in saying that the ‘233 patent disclosure of administering Claritin to a patient is sufficient to enable a disclosure of DCL?
    - Cf. “isolate and purify” standard. Would the disclosure of the administration of Claritin be sufficient to claim DCL if it was sufficient to show how to “isolate and purify” it? Rader says “pure and isolated” form can be claimed.

4-23

### **Inherency – Schering v. Geneva (Fed. Cir. 2003)**

- Newman dissents from denial of en banc review
- Says 101 includes “discoveries”
  - Is that right? Does she cite any cases? What about line of Supreme Court precedent on “natural phenomena”?
- But rightly quotes at length from Continental Can
- Newman appears to be right, but the majority refashions binding precedent to stop abuse of the patent system via ever-greening
  - Is there another way to achieve this? What about Sec. 103?

4-24

## Inherency – Schering v. Geneva (Fed. Cir. 2003)


- Compare the rule of *EMI Group* (Fed. Cir. 2001)
  - Structure, composition of matter, and method steps require knowledge of PHOSITA; “theoretical mechanisms” and “rules of natural law” do not
    - But is a metabolite a “rule of natural law”

4-25

## Statutory Bars – §102(b)

“the invention was patented or described in a printed publication in this or a foreign country **or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States**”

102(b) – if the applicant does not file within one year of the date of the prior art reference or activity, then the patentee is barred from applying for the patent.

	in public use or	“Experimental use” exception [different from “experimental use” exemption to infringement]. Compare patentee vs. third-party uses.
	on sale	Commercial offer for sale and invention is “ready for patenting.” Cf. patentee vs. third-party sales.

4-26

## Statutory Bars – Rationales

- Important in a first-to-invent system
- Specifically, the bars help provide notice to others by preventing inventor from sitting back while industry develops, then filing for a patent
  - Promotes early filing of patent applications; eliminates “patent races”; promotes “fairness”
  - “Must” choose between secrecy and patenting
  - But does this help commercialization in the long run?
- Does not allow products or processes in the “public domain” to be patented
  - But note one-year “grace” period (allows time to test invention)

4-27

## Modified “first-to-invent”

- Because of the bars, the U.S. is not a pure “first-to-invent” system [typo in case book]
- Any “public use” or “sale” in the United States more than one year before the filing date is de jure prior art (first- or third-party)
  - Same goes for patents or printed publications anywhere in the world more than one year before the filing date (will cover later)
- Why only in the United States?
  - Original justification was that proof overseas is difficult
  - No longer a valid rationale; arguably discriminates against foreign inventors

4-28

### **Pennock v. Dialogue (1829)**

- Justice Story “invents” the public use/on-sale bar
- “It would materially retard the progress of science and the useful arts” to allow an inventor to “hold back the knowledge of the public” while making and selling his invention
- Adopts a mandatory bar with no grace period
- Act of 1836 codifies this rule
- Act of 1839 adopts two-year grace period
- Act of 1852 adopts one-year grace period
- Should there be a grace period? If so, how long?
  - N.B.: There is no grace period in Europe.

4-29

### **Egbert v. Lippman (1881)**

- Very famous case
- “Reissue” patent on corset-springs
  - A reissue application allows the inventor to correct substantive errors in the issued patent
  - E.g., inventorship, claim scope (can expand scope only two years from issuance), etc.
- Patent assigned to the executrix of the original patentee
  - Note: Transfer/sale/assignment of patent rights follows state law. Patents usually treated as a form of personal property.

4-30

### Egbert v. Lippman (1881)

- How does Egbert deal with the following considerations in determining whether a use is “public use” under §102(b)?
  - Number of articles in use? One is sufficient.
  - Number of users? One is sufficient.
  - Significance of public observation? Yes, but may be one person under no duty to keep it secret.
    - What about the personal relationship?
    - This holding has been cut back a bit in the case law.
  - Number of observers? One is sufficient.
  - Extent to which observers understand the disclosed technology? None here.
    - Was the use “informing”? Arguably not. Is this necessary now? Still not required for 1<sup>st</sup> parties, but in practice, review the case law.

4-31

### Egbert v. Lippman (1881)

- Significance of efforts to keep it secret?
  - Squaring with Moleculon Research (Fed. Cir. 1986)
    - States that “personal relationships and surrounding circumstances” may suffice to show “restricted use” of the invention
    - This means that an explicit confidentiality agreement is not necessary to show “private” use

4-32



**Metallizing Engr. Co. v. Kenyon Bearing (2d. 1946) (Hand, J.)**

- District court held the patent valid
  - It concluded under Peerless Roll that even though the use of the process for conditioning metal was primarily commercial (and any experimental use was subordinate), but the use, being secret, was not “public use” and thus not patent defeating
    - In Peerless Roll the patented machine was operated secretly, its output sold openly, but the output disclosed no knowledge about the machine
- Based on weight of other precedent and policy, the court overrules Peerless Roll and invalidates the Metallizing patent

4-33

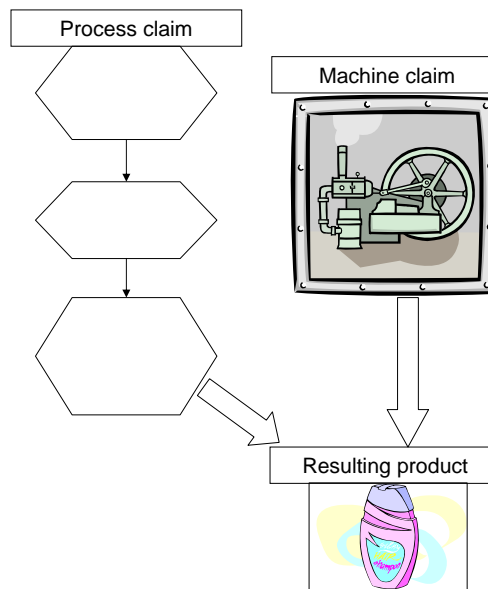
**Metallizing Engr. Co. v. Kenyon Bearing (2d. 1946)**

- Other invalidating “public” precedent
  - Rubber hose joint-making process operated in secret but the hose was sold in significant quantity, and the resulting joints by themselves did not disclose the process
  - Harness making machine operated in secret but harnesses sold to public
- The Metallizing holding then comes down to
  - Secret commercial exploitation of a process invention or a machine that results in a product sold by the inventor constitutes a “public use” under §102(b)
    - But a third-party sale/use using the same process is not 102(b)
    - Is this distinction supported by the statute?

4-34

### Metallizing Engr. Co. v. Kenyon Bearing (2d. 1946)

- A claim to either (i) a process to produce a product, or (ii) a machine which produces a product, may be invalid
  - due to a statutory bar patent defeating event
  - if the resulting product produced by the process or machine is used/sold publicly
- Why?
  - Using/selling publicly effects a commercial use of the invention even if the process or machine is operated in secret



4-35

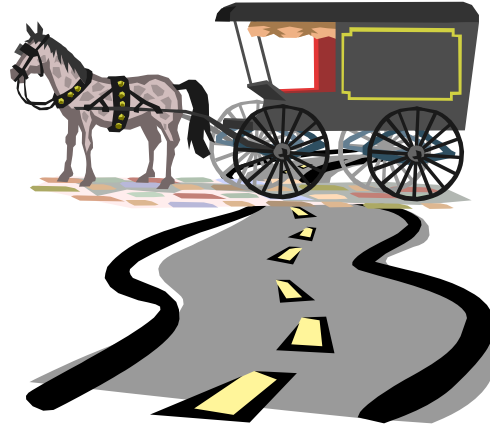
### City of Elizabeth v. Pavement Co. (1877)

- Second reissued patent
- Also extended for a “further term of seven years”
  - Historically, patents were 14 years and could apply for a seven-year extension
  - Extensions today?
  - Can apply for an extension for:
    - Patent Office delay in examination
    - FDA approval process (up to 5 years)
    - But not a “general” extension to lengthen term
- Filed a “caveat” before filing the application
  - Similar to a “provisional patent” application today
  - Allows inventor to submit basic documentation to secure early filing date

4-36

## City of Elizabeth v. Pavement Co. (1877)

- Experimental use doctrine
  - If the doctrine applies, then the use is not a patent defeating statutory bar event under §102(b)
- Fundamental inquiry
  - ***is the use necessary to demonstrate workability of the invention, i.e., suitability for its intended purpose***
- Does doctrine apply to Mr. Nicholson's road pavement invention?



4-37

## City of Elizabeth v. Pavement Co. (1877)



- Here, must experiment on street pavement in public
  - Some experiments, such as for durability, may take time
- A use is not a “public use,” even if the public benefits, if the use is still an experiment
- Nicholson’s situation
  - He controlled the experiment, had consent and performed it on the premises of the company he had some influence over
  - Experiment had the valid purpose of testing for durability and needed the public venue to properly test this characteristic
  - While it was a long test, the length seems reasonable
  - Users did not pay any additional amounts for the use of the invention, the road was already a toll road
    - Not on sale “for general use”
  - Mr. Nicholson was constantly inspecting the road and monitoring its performance, asking the toll gate operator how travelers liked it

4-38

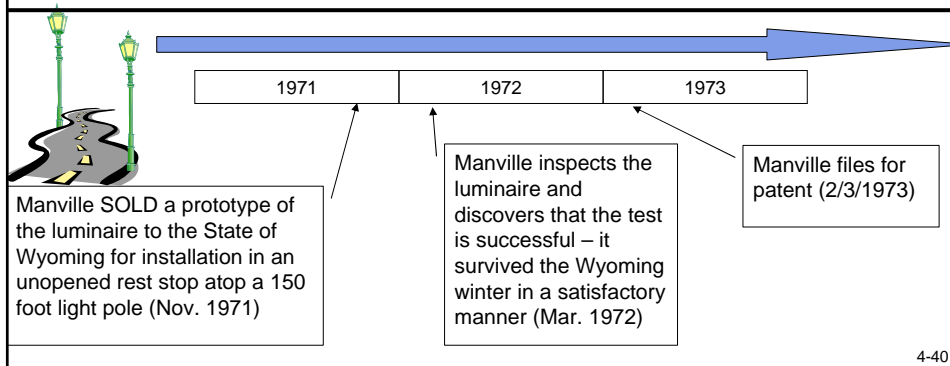
## Experimental Use factors

- Factors for experimental use exception to public use statutory bar – to help determine whether the experiment is leading to an actual reduction to practice:
  - Control by inventor (most important)
  - Confidentiality / secrecy agreements
  - Necessity of public testing
  - Length of test period, number of prototypes
  - Did users pay? Commercial exploitation?
  - Progress reports, monitoring, records of performance
  - The experiment must be for claimed features of the invention, or perhaps for general purpose/utility of the invention [note 3, pg 197]
  - Are experiments hidden?
- Is experimental use an exception or part of the “public use” inquiry, i.e., a “negation”?
- Does market testing for customer satisfaction qualify? No.
- Emphasis on control and customer awareness [Electromotive Div. of GM v. Transportation Sys. Div. of GE, 417 F.3d 1203 (Fed. Cir. 2005)]

4-39

## Experimental Use – other items

- Manville Sales v. Paramount Sys (Fed. Cir. 1990) (Michel, J.)
  - The context of the sale was as an experiment
    - Manville told a Wyoming official it was an experiment
    - confidentiality notices on drawings ensure no disclosure
  - Even though Manville was paid, the sale was primarily for experimental purposes
  - Judge Michel says we must consider “how the totality of the circumstances comports with the policies underlying the on sale and public use bars”



4-40

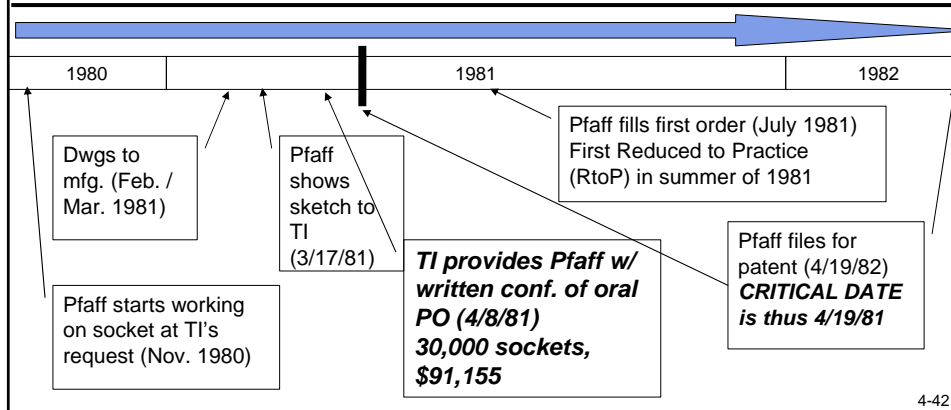
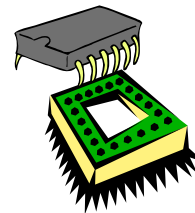
## On Sale Bar – §102(b)

- Subject of a commercial sale or offer for sale
- Intention is “ready for patenting,” i.e., it is “complete,” satisfied in either of two ways:
  - Actual Reduction to Practice
    - invention in existence and proven to operate for its intended purpose
      - This could mean it has been “built” or could be met though other forms of evidence
  - OR
  - “Ready for patenting”
    - Sufficiently specific information is available to prove that the invention is fully conceived, such as drawings, technical descriptions
      - Must enable a person skilled in the art to practice the invention.
      - Analogous to a “Constructive Reduction to Practice” – a term sometimes used to refer to the filing of a patent application
      - Unlike prior art, must show “utility” to be “ready for patenting”

4-41

## Pfaff v. Wells Elec. (1998)

- Pfaff invents new socket for Texas Instruments (TI)
  - His normal practice is not to make or test a prototype before offering to sell it in commercial quantities
  - District court rejects Wells’ §102(b) On Sale Bar (OSBar) defense



4-42



## Pfaff v. Wells Elec. (1998)

### ● Supreme Court

- Pfaff could have patented the invention at the time of the PO
  - The drawings Pfaff provided to the manufacturers described the invention with “sufficient clearness and precision to enable those skilled in the matter” to produce the invention
  - Thus, the invention was “ready for patenting” at the time of the PO
- However, even though Pfaff loses, the Supreme Court agrees that the Federal Circuit’s “substantially complete” Totality of the Circumstances (TofC) test is the wrong standard
- Inventor can both understand and control the timing of the first commercial marketing of the invention
- Here, there was a commercial offer for sale by Pfaff, a response from TI with a purchase order, and an acceptance; all at a time when the invention was “ready for patenting”
- Pfaff test: (1) Commercial offer for sale; and (2) Ready for patenting.

4-45

## On Sale Bar – other items

### ● Federal Circuit application

- How does the Pfaff test impact the requirement that the subject matter be covered by the claim?
  - Scaltech – “if the process that was offered for sale inherently possessed each of the claim limitations, then the process was on sale” (revision to opinion post-Pfaff)
  - “Inherency” here should not be read to contradict Pfaff. Rather, is the product offered for sale within the scope of the claim.
- However, Vision Systems says that the inventor’s disclosure must be “enabling.” Although the book says this returns to the Pfaff test, it seems Scaltech and Tec Air are still good law.
  - Namely, if the product offered for sale is not the one claimed in the patent, who cares if it is “ready for patenting”?

4-46

## On Sale Bar – other items

- What if the invention is “ready for patenting” but still undergoing “experimentation”?
  - Does the “experimental use” exception still apply? Yes, see *EZ Dock v. Schafer* (Fed. Cir. 2002).
- Sale of patent rights
  - “Although the formal written assignment occurred after the critical date, the district court held that even if there were an earlier oral agreement, an assignment or sale of the rights in the invention and potential patent rights is not a sale of “the invention” within the meaning of section 102(b). We agree” Moleculon
- Sales to related parties
  - Standard is whether the seller “so controlled” the purchaser that the invention stays out of the public’s hands
    - In one case, 50% ownership in an exclusive distributor was not sufficient

4-47

## Electric Storage Battery v. Shimadzu (1939)

- “Informing Uses”
- Employees at a plant under no confidentiality agreements (or “efforts ... to conceal” the inventions) is a “public use”

4-48



### **Abbott Labs v. Geneva (Fed. Cir. 1999)**

- “Non-informing Uses”
- Patent on chemical compound (call it 4-A)
- Geneva and others filed ANDA to produce a generic version of 4-A
- Claim that 4-A patent is invalid because of on-sale bar
- But Abbott argues that sellers of 4-A did not know what they were selling
- Court: Under Pfaff, an invention need only be “ready for patenting”
  - An “actual reduction to practice” satisfies this test

4-49

### **Abbott Labs v. Geneva (Fed. Cir. 1999)**

- What about “accidental, unintended, unappreciated” line of cases
- These cases hold that earlier work that produces no appreciated results cannot anticipate
- Court creates “exception” to this rule for “on-sale” bar
  - Presumably, same would apply to “public use”
- Reasoning: This material is now in the public domain.

4-50

### **Gore v. Garlock (Fed. Cir. 1983)**

- Case over “Goretex”
- Claims on process of stretching highly crystalline PTFE and various products thereof
- Sale of Cropper machine from New Zealand to U.S.
  - Would appear to count but claims not on the machine itself
- Use of machine was subject to confidentiality agreement



4-51

### **Gore v. Garlock (Fed. Cir. 1983)**

- Unlike Metallizing, a secret sale or use by a third-party does not constitute a 102(b) use or sale
- The law favors disclosure over trade secrecy



4-52

### Framework for §102(b) public use bar

- Use three categories to sort the effect of the use of the invention:
  - whether it informs the public or others of the invention
  - whether it does not so inform, or
  - whether the use was explicitly the subject of efforts to keep it secret
- The table below is for the following question:
  - *Is it a “public use” under §102(b)?*

Actor	Informing Use	Non-informing Use	Secret Use
Applicant	Yes	Yes <u>Egbert v. Lippman</u> (But be careful)	Yes <u>Metallizing</u> (But be careful)
Third Party (TP)	Yes	Yes <u>Abbot v. Geneva</u> (But be careful)	No An area of some uncertainty, but for our purposes, if use is held secret, for example, as a trade secret (TS), such use is not barring when done by a TP; example fact pattern is a manufacturing process or machine sold w/ TS clause requiring buyer to hold it as a TS

4-53

### §102(c) Abandonment

- Statute:
  - A person shall be entitled to a patent unless . . . (c) he has abandoned the invention
  - Meaning
    - surrender of the invention **to the public**
    - Certain conduct by the inventor can lead to the forfeiture of the right to obtain a patent on the invention
- Kendall v. Winsor (US 1858) – inventor can confer benefits of the invention to the public by express declaration **or** by conduct equally significant with language, such as
  - acquiescence with full knowledge
  - willful or negligent postponement of filing, or
  - by waiting to patent until others introduce the invention

4-54

### §102(d) Delayed US Filing

- Statute:
  - A person shall be entitled to a patent unless . . . (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States
- Meaning:
  - the patent defeating bar operates if
    - an inventor files a foreign patent application more than 12 months before filing the US application
  - and
    - a foreign patent results for "the invention" from that foreign application prior to the US patent filing date

4-55

### §102(d) Delayed US Filing

- In re Kathawala (Fed. Cir. 1993)
  - Spanish and Greek applications filed and issued before US f/d, and US f/d more than a year after both foreign filing dates
  - Issue is whether there are other reasons to not consider the Spanish or Greek applications barring
    - Kathawala argued:
      - Spanish application was not barring because it merely claimed a method of making
      - Greek law disallowed patents on pharmaceuticals

Country	Compound Claims	Pharma. Composition Claims	Method of Making Claims	Method of Using Claims
US	X	X		X
Greece	X	X	X	X
Spain			X	

4-56

### §102(d) Delayed US Filing

- In re Kathawala (Fed. Cir. 1993)
  - Court found that foreign patents were 102(d) prior art nonetheless
  - General Rule: Did the foreign patents disclose and provide the opportunity to claim the aspects of the invention patented in the United States? If yes, then 102(d) art.

Country	Compound Claims	Pharma. Composition Claims	Method of Making Claims	Method of Using Claims
US	X	X		X
Greece	X	X	X	X
Spain			X	

4-57

### Statutory Bar Exercises

???

1. Unstrung Incorporated begins development efforts to adopt Bjorn's process to the realities of the factory production line on August 1, 2006. After modifying its existing manufacturing processes to fit the Bjorn process and working out the bugs, Unstrung judges these efforts to be successful by November 19, 2006. At that point, Unstrung then begins commercial production.

2. A few days after completing her invention, Bjorn writes an article about the process and submits it to a technical journal. The article is published on December 15, 2006.

3. Unstrung Incorporated begins shipping tennis rackets produced by the Bjorn process to distributors on February 1, 2007. Retailers makes the first sales of Bjorn-produced rackets to consumers by February 10, 2007.

4. An unrelated party located in the United States, Swish Limited, had developed a similar process to that invented by Bjorn. Swish perfected the process on October 7, 2006, and produced several dozen rackets. Ultimately, however, they decided not to employ the process on a larger scale for financial reasons. Swish maintained the process documentation and resulting rackets under lock and key, and the Swish employee-inventors maintained the pledge of confidentiality they had agreed to in their employment contracts.

4-58

**Statutory Bar Exercises**



???

5. During his September 15, 2003 retirement luncheon in Campos, Brazil, the senior engineer of a local sporting goods maker offers some advice on ways to improve the production of tennis racquets. The steps he proposes are quite similar to those ultimately suggested by Bjorn. The remarks are in Portuguese and go unrecorded.

6. Mr. Forehand is the President, chief executive officer, and sole shareholder of Unstrung Incorporated. Forehand is presented with the "Sports Manufacturing Person of the Year Award" at an elaborate industry-sponsored dinner on August 27, 2006. In a fit of largess following the acknowledgment by his peers, Forehand fully describes the Bjorn process during his acceptance speech. He then declares that "I believe this invention will transform the world of tennis and feel that all of us should participate in the dramatic possibility. I hereby dedicate our new invention to the public." The next morning, Forehand has second thoughts and orders the filing of a patent application as above.

7. Unstrung Incorporated's patent attorney contacts two foreign associates and asks them to file patent applications claiming the Bjorn process in Sweden and Germany, respectively. The Swedish application is filed on July 15, 2006 and issues on October 13, 2007. The German application is filed on August 17, 2006 and issues as a granted patent on January 15, 2008.

**§102(a) & §102(b)**

	...	
	...	
	<b>patented</b> or <b>printed publication</b>	A grant of exclusive rights, evaluated for what is claimed, accessible to public & not secret  Public accessibility – the document was made available to the extent persons interested and ordinarily skilled in the art, exercising due diligence, could locate it.  The test for what is a "patent or printed publication" is the same under 102(a) & (b)).

Meaning for foreign jurisdictions?

Meaning?

### §102(a) & (b) - “Patented” – In Re Carlson (Fed. Cir. 1992)

- Standard of knowledge charged to the objective, fictional PHOSITA
  - knowledge of all the contents of relevant prior art
    - regardless of the actual knowledge of the applicant
  - The fictional PHOSITA’s “charged knowledge” of the prior art includes knowledge of “patents” in a “foreign country”
  - As long as such “patents” are “**available to the public**”
    - secret/private patents do not qualify as “patented” abroad
  - The foreign patent must be readily accessible to qualify as such
  - Even a single deposit in a local courthouse in a foreign land is “available to the public”

4-61



### §102(a) & (b) - “Printed Publication”

- Undergraduate thesis (In re Cronyn)
  - Not meaningfully indexed (cards in a box, not in library computer system), thus not a “printed publication”
- Type written paper presented at conference (Deep Welding)
  - Perhaps not a “printed publication” because not indexed or cataloged?
    - Unless - the conference constituted much of the “relevant public”
  - Court found that the reference was a “printed publication” because
    - “printed” does not necessarily mean typesetting or other formal printing processes
    - This publication was publicly distributed at conferences of PHOSITAs
- Foreign patent application on microfilm [“printed”?] (Phillips)
  - “as indexed, [it] was available to persons interested and could be located by persons ordinarily skilled in the subject matter with the exercise of reasonable diligence”
    - This is a good statement of the diligence standard embedded in the inquiry

4-62

## §102(a)

102(a) – “the invention was ***known or used by others*** in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent”

	<b>public knowledge</b> or	“Public” is an implied requirement, relates to that segment of the public most interested in the technology, public if no deliberate attempts to keep it secret.
	<b>used by others</b>	One use is sufficient, even if private, remote or widely scattered, public if no deliberate attempts to keep it secret.
	<b>patented</b> or	• • •
	<b>printed publication</b>	• • •

4-63

## Woodcock v. Parker (MA Circuit Ct, 1819) (Story)

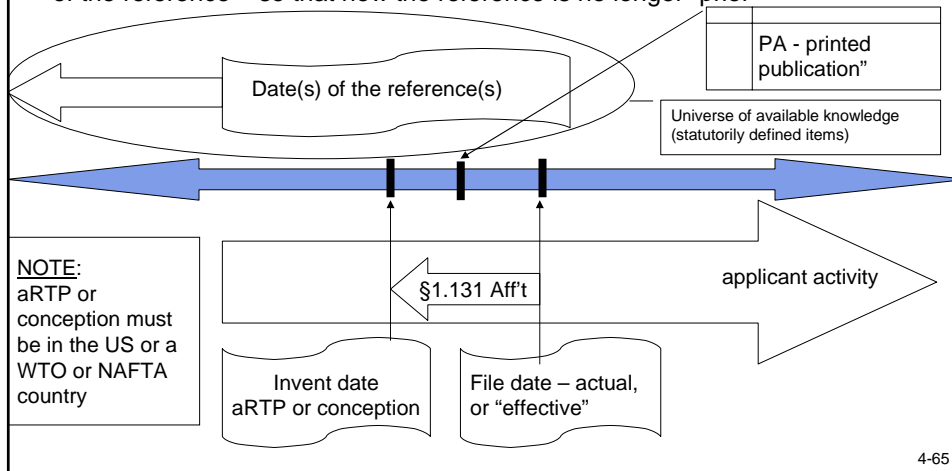
- If D has title to the patent from the “first and original” inventor, then P does not have an infringement cause of action
  - Jury instructions by Justice Story
- Notes
  - First & original inventor
    - Potentially novelty-destroying technology is measured from the date of invention, not the filing date
  - Disclosure of invention date
    - The PTO does not request this on an application, but rather makes ad-hoc requests using “Rule 131 affidavits”

4-64



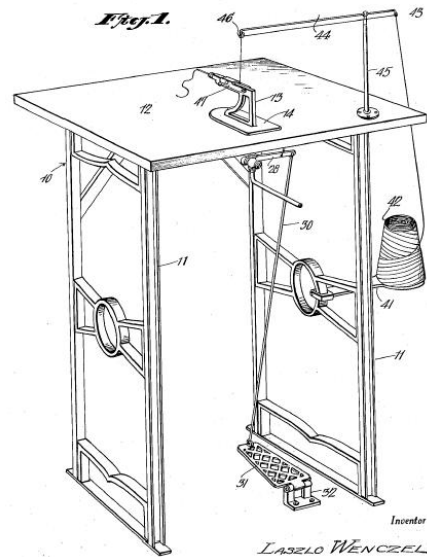
## “Swearing behind” or “antedating a reference”

- With a §102 or §103 rejection, applicant can overcome §102(a) & §102(e) PA unless
  - (i) the rejection is based on a US Patent or application claiming the same invention, in which case there may be an interference under §102(g); or (ii) the rejection is a statutory bar, §102(b) & (d), in which case “swearing behind” does not work
- The declaration must set forth facts that the applicant had (i) actually reduced to practice (aRTP) or (ii) conception (C) and diligence (D) starting before the date of the reference – so that now the reference is no longer “prior”



## Gillman v. Stern (2d 1940) (Hand)

- Gillman is asserting patent for “puffing machine”
  - It blows thread into fabric for an embossed design
- Patent dates
  - File date (f/d): 1/21/1931
  - Issued: 7/25/1933
- Two instances of prior use by Haas alleged
  - First alleged use was an “unsatisfactory temporary device” - an abandoned experiment
  - Dates of use unknown



**Gillman v. Stern (2d 1940) (Hand)**

- **Second alleged use**
  - Issues existed as to whether this second device anticipated the patent, although it was “prior” because used in 1929
  - However, the dispute about anticipation (or even obviousness) for the second device did not matter because it was never in public use
    - It was always kept as strictly secret as possible
    - Many deliberate efforts to keep it secret
  - A secret inventor is not a “first inventor”
- **Informing use versus secret use?**
  - It is an anomaly that by secreting a machine away one may keep it from anticipating, even though its public use would really have told nobody anything about it
- **Result – an implied “public-ness” requirement in 102(a)**
  - “Public” means those skilled in the art
  - It does not require actual knowledge or use by the public, just that the prior invention was publicly accessible – in the open and used in the ordinary course of activities of the employer

**Framework for §102(a) “known or used”**

- Use three categories to sort the effect of the use of the invention:
  - whether it informs the public or others of the invention
  - whether it does not so inform, or
  - whether the use was explicitly the subject of efforts to keep it secret
- The table below is for the following question:
  - *Is it a “known or used” under §102(a)?*

Actor	Informing Use	Non-informing Use	Secret Use
Third Party (TP)	Yes <u>Woodcock v. Parker</u>	Yes <u>Gillman v. Stern</u>	No <u>Gillman v. Stern</u>

§102(g)		
102		Notes
(g)(1)	<p>during the <u>course of an interference</u> conducted under section 135 [PTO] or section 291 [court], <u>another inventor</u> involved therein <u>establishes, to the extent permitted in section 104</u>, that <u>before such person's [the applicant's] invention</u> thereof the <u>invention was made by such other inventor</u> and <u>not abandoned, suppressed, or concealed</u>, or</p>	<p>Underlined items show elements of this category of prior art, which is the basis for "interference" proceedings.</p> <ul style="list-style-type: none"> <li>- "limits" of §104 means by relying on acts of invention wherever and whenever permitted by §104</li> <li>- Occurs for rejection based on a US Patent or application claiming the same invention</li> </ul>
4-69		

§102(g)		
102		Notes
(g)(2)	<p>before such person's invention thereof <u>[i.e., before the applicant's DOI]</u>, the <u>[claimed] invention</u> was <u>made</u> in <u>this country</u> by <u>another</u> inventor who had <u>not abandoned, suppressed, or concealed</u> it.</p>	<p>Underlined items show elements of this category of prior art (D identifies a TP who allegedly invented first).</p> <ul style="list-style-type: none"> <li>- "making" the invention may be in secret, but if it is A/S/or/C at the time just prior to the priority date of the second invention, then it loses its status as PA .</li> <li>- §104 does not apply to "in this country" [§104 allows an applicant to show conception and diligence outside the US in NAFTA or WTO countries]</li> </ul>
4-70		

§102(g)		
102		Notes
(g)	In determining priority of invention under this subsection, there shall be considered not only the respective dates of <b><u>conception</u></b> and <b><u>reduction to practice</u></b> of the invention, but also the <b><u>reasonable diligence</u></b> of one who was first to conceive and last to reduce to practice, from a <b><u>time prior to conception by the other.</u></b>	- The sentence defines a narrow condition where even if an inventor was not the first to “make” he or she may win a priority “race”
4-71		

**Conception**

- Five-element test that must be met for the ultimately claimed invention – mapped to the two-element test used by the court in Oka
  - Formation
  - in the Inventor’s Mind
  - of a Definite and Permanent Idea
    - In sufficient detail
  - of the Complete and Operative Invention
  - as it is thereafter applied in Practice

“the directing conception”

means for carrying out

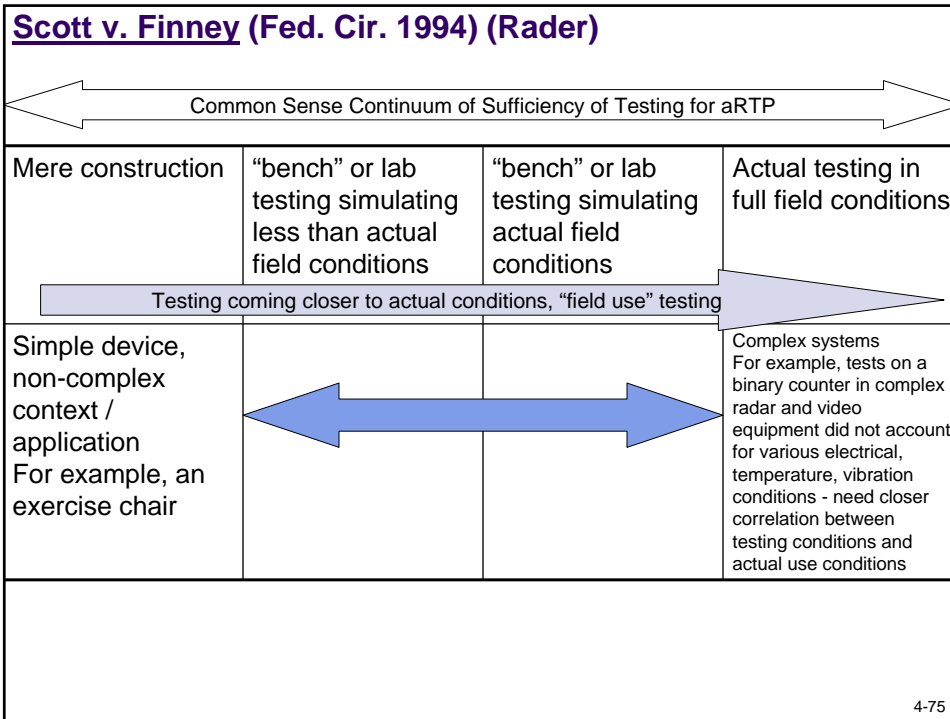
4-72

<b>Oka v. Youssefyeh (Fed. Cir. 1988) (Markey)</b>		
Macro-element of Conception Test	2-indanyl version of count compound	5-indanyl version of count compound
“the directing conception”	< 10/31: Satisfied 10/31: Satisfied	< 10/31: Lacking <b>10/31: Satisfied</b>
means for carrying out	< 10/31: Lacking 10/31: Lacking	< 10/31: Satisfied?? <b>10/31: Satisfied</b>
<ul style="list-style-type: none"> <li>● If Y satisfies both parts of the conception test as of 10/31/80, why doesn't Y win? <ul style="list-style-type: none"> <li>● When a date is established by testimony to fall within a range, the end of the range is credited as the date</li> <li>● Effect on the outcome?</li> </ul> </li> <li>● Other points <ul style="list-style-type: none"> <li>● Inventor must present proof showing possession or knowledge of each feature of the count and <b>communicated to a corroborating witness</b> in sufficient detail to enable a PHOSITA</li> <li>● One needs proof (documentation) that one thought about it <ul style="list-style-type: none"> <li>● Why have this stringent corroboration requirement?</li> </ul> </li> </ul> </li> </ul>		

4-73

<b>Actual Reduction to Practice (aRTP)</b>
<ul style="list-style-type: none"> <li>● Elements <ul style="list-style-type: none"> <li>● Physically building or performing</li> <li>● Testing sufficient to demonstrate <ul style="list-style-type: none"> <li>● whether the invention works (is suitable) for its intended purpose <ul style="list-style-type: none"> <li>▪ Occurs when the last test needed to show operability is completed &amp; the inventor understood the test to be successful</li> </ul> </li> <li>● Sufficiency of testing is evaluated on a continuum <ul style="list-style-type: none"> <li>▪ Less stringent for “simple” inventions and more stringent for “complex” inventions</li> </ul> </li> </ul> </li> <li>● aRTP must be corroborated <ul style="list-style-type: none"> <li>● Inventor’s oral testimony alone is insufficient</li> </ul> </li> </ul> </li> </ul>

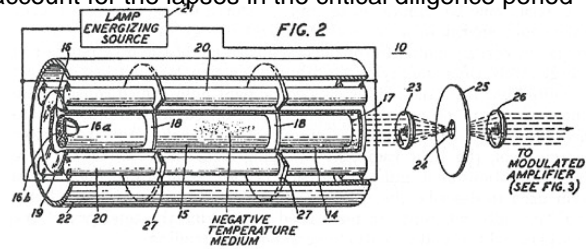
4-74



- Scott v. Finney (Fed. Cir. 1994) (Rader)**
- What is quality and quantity of testing required to show that invention works for its intended purpose?
    - Some devices are so simple that their purpose and efficacy is so obvious that complete construction (but not use) is sufficient to demonstrate workability
    - Factual analysis
      - Does not require that when tested that the invention be in a commercially satisfactory stage of development
      - “Testing need not show utility beyond a possibility of failure, but only utility beyond a probability of failure.”
- 4-76

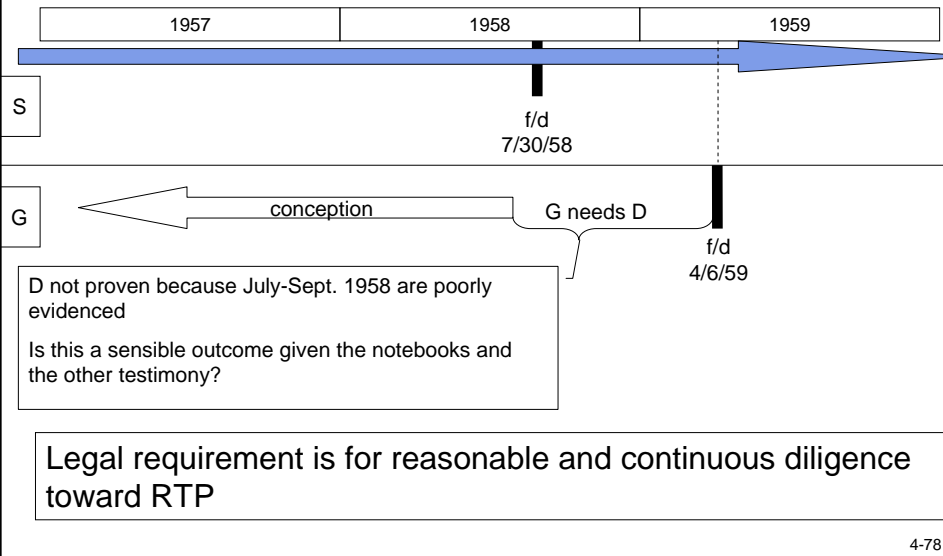
## Gould v. Schawlow (CCPA 1966)

- Interference proceeding over laser technology
- S is Senior Party
- G is trying to prove earlier DOI
  - G alleges conception prior to S's filing date
    - Question becomes whether there was "diligence"; necessary element to provoke an interference
  - After C, G was (in his words) trying to
    - Determine the optimal "working medium" of the laser
    - Find a locale/job where the development could be funded & continue
- Board decision
  - It awarded priority to Schawlow
  - Determined that it could not make the necessary inferences from G's offered evidence to account for the lapses in the critical diligence period



## Gould v. Schawlow (CCPA 1966)

- G says that from Nov. 1957 to Dec. 1958, he worked on the laser every week, 1000 hours total
- G offers: (i) his testimony; (ii) his wife's testimony; (iii) some "notebooks"; and (iv) testimony of his patent attorney



## Gould v. Schawlow (CCPA 1966)

- What the opinion doesn't mention:
  - Gould mistakenly believed that he needed aRTP to get a patent; approached patent atty in Jan. 1958!



Do not assume your client knows anything about patent law. Explain and investigate key aspects of invention and patenting process.

- Schawlow's co-inventor Townes was a professor at Columbia and discussed key aspects of the invention with Gould!
  - Dispute over whether Townes informed Gould or vice-versa of invention elements; cf. 102(f)
- Bell Labs was owner of Schawlow-Townes patent

4-79

## Gould v. Schawlow (CCPA 1966)

- Townes was awarded the Nobel prize for work on the laser
  - Schawlow won the Nobel Prize for later work related to the laser
- Gould fought for over thirty years to receive and enforce other patents related to the laser
- Eventually, successful, but was nearly 70 by the time he garnered substantial damages/royalties



4-80



## Corroboration

- Inventor may make use of C, D or aRTP – only if corroborated
- Courts tend to be strict in requiring corroborating evidence
- Corroboration of oral evidence of prior invention is the general rule in patent disputes
  - 8 factors in assessing corroboration – “rule of reason” analysis
    - (1) the relationship between the corroborating witness and the alleged prior user,
    - (2) the time period between the event and trial,
    - (3) the interest of the corroborating witness in the subject matter in suit,
    - (4) contradiction or impeachment of the witness' testimony,
    - (5) the extent and details of the corroborating testimony,
    - (6) the witness' familiarity with the subject matter of the patented invention and the prior use,
    - (7) probability that a prior use could occur considering the state of the art at the time,
    - (8) impact of the invention on the industry, and the commercial value of its practice.

4-81

## Corroboration

- Two example fact patterns where evidence was not sufficient to overcome the corroboration standard required to invalidate a patent
  - Barbed Wire Patent Case – on patent issued in 1874, 24 people testified that they saw/experienced the barbed wire at a county fair in 1858
    - Lower court said that it is unlikely all 24 were lying, invalidated the patent
    - US Supreme Court reversed
      - Witnesses whose memories are prodded by the eagerness of interested parties to elicit testimony favorable to themselves are not usually to be depended upon for accurate information
  - Woodland – district court invalidated a patent on method to protect foliage from freezing on the basis of testimony by 4 individuals that the defendant used the method for 10 years 30 years prior to the plaintiff's invention
    - Federal Circuit reversed, rejecting the district court's logic that it was unlikely that all 4 witnesses for defendant were perjurers
    - Uncorroborated oral testimony, of interested persons of events long past, does not meet corroboration standard

4-82

## Apotex USA v. Merck (Fed. Cir. 2001)

- Preliminaries:
  - Claim 1 has a step that recites either do A or B
  - This is very unusual. Why?
  - A piece of prior art that recites only A will invalidate; same for piece of prior that recites only B.
  - Suppose prior art only shows B (or renders B obvious), but the infringing method only practices A.
  - Then the claim will be infringed, but invalid.
  - But if split into two claims: One that does A, and one that does B, then the first claim is valid and infringed.
  - So why combine two alternative steps?
    - Only reason is to save a small amount of money, which is usually not a good one.

4-83

## Apotex USA v. Merck (Fed. Cir. 2001)

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>● Apotex patent claims are to process of making a stable compound for use in treatment of high blood pressure</li><li>● District court found the two Apotex patents invalid under 102(g)<ul style="list-style-type: none"><li>● Merck invented the process before Apotex &amp; did not A/S/or/C.</li></ul></li><li>● It is conceded that Merck invented the process well before Apotex's Dr. Sherman conceived the invention<ul style="list-style-type: none"><li>● Also conceded that Merck did not "abandon" it (cf. 102(c))</li><li>● So, the sole issue is whether Merck "suppressed" or "concealed" (S/or/C) it</li></ul></li></ul> | <ul style="list-style-type: none"><li>● Merck manufactures the compound (since 1983), and has patent claims to the compound, but none on the process of manufacturing it<ul style="list-style-type: none"><li>● Why? Presumably wanted to keep it secret!</li></ul></li><li>● In 1988, Merck publicly disclosed ingredients of its compound in a French pharmacological dictionary<ul style="list-style-type: none"><li>● If this were enough, then would Apotex's patent be valid?</li><li>● Same goes for 30,000 copies of 1992 Canadian monograph</li></ul></li><li>● Testimony in Canadian case<ul style="list-style-type: none"><li>● Witnessed by Dr. Sherman</li><li>● Why not 102(f) – not all elements of invention</li><li>● If in a court a law, should that count as not suppressing?</li></ul></li></ul> |
|--|---|

4-84

## Apotex USA v. Merck (Fed. Cir. 2001)

- Federal Circuit analysis
  - Language of 102(g) requires the invention be “made” in this country
  - but A/S/or/C could be anywhere
    - Congress could have limited A/S/or/C if it wanted
    - The “in this country” modifier was removed from an earlier draft provision
- Burden of proof / production issue
  - Challenger of a patent must show by clear and convincing evidence prior invention in this country.
  - Then, patentee must produce evidence sufficient to create a genuine issue of material fact as to whether the prior inventor has suppressed or concealed the invention.
  - However, in accordance with the statutory presumption in § 282, the ultimate burden of persuasion remains with the party challenging the validity of the patent.
  - Once the patentee has satisfied its burden of production, the party alleging invalidity under §102(g) must rebut any alleged suppression or concealment with clear and convincing evidence to the contrary.

4-85

## Apotex USA v. Merck (Fed. Cir. 2001)

- Two types of S/or/C
  - (i) active;
  - (ii) legal inference of S/or/C based on unreasonable delay in filing
- This case involved issues relating to the second type of S/or/C
  - The first inventor takes the risk of someone else patenting the invention if she does not properly make the public aware that it is in the public domain
  - So, for the legal inference form of S/or/C, a party is deemed S/or/C “if, within a reasonable time after completion, no steps are taken to make the invention publicly known”

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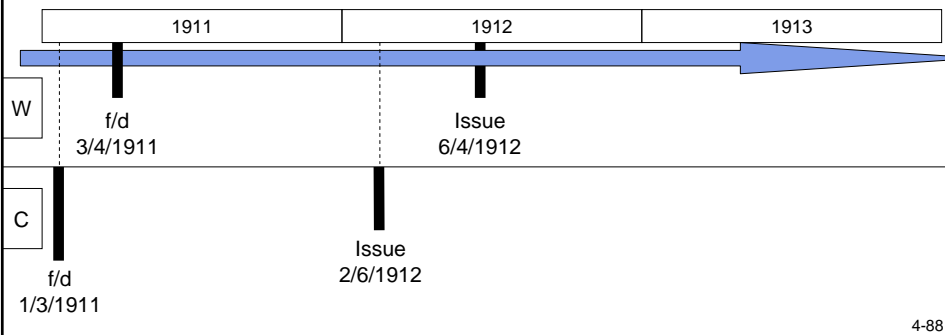
## Apotex USA v. Merck (Fed. Cir. 2001)

- Apotex has created a GIMF on the proposition that Merck S/or/C
    - It has satisfied its burden of production
      - 102(g) has no requirement that a party must apply for a patent
      - However, not patenting is a relevant factor
      - Here, Apotex alleged other factors, such as that Merck failed to make the process publicly known
        - 5 years from start of manufacturing (1983) to listing ingredients in Canada drug dictionary (1988)
  - Apotex tries to counter by arguing that Merck's 1992-94 activity was not full disclosure
    - But the court says that a PHOSITA could look at Merck's pill & know the process by which it was made in conjunction w/ the published ingredients list
- Under 102(g)(2), Merck showed by CCE that the invention "was made in this country by another inventor"
- But, Merck has by CCE, rebutted the inference (via inactivity) of S/or/C
    - Merck **resumed activity** before Apotex entered the field (**Paulik** rule)
      - Distributed product monograph in 1992-94
      - Presented litigation video on March 28, 1994
        - Apotex's Dr. Sherman conceived (allegedly) in April 1994

4-87

## Alexander Milburn v. Bournonville (US 1926) (Holmes, J.)

- Whitford welding patent is being asserted
- D cites Clifford reference (but no W-type claims) as invalidating
- Holmes logic
  - If Whitford had filed after C issued, it is clear that C, as a printed pub, anticipates
  - So, "the delays of the patent office ought not to cut down the effect of what has been done."
  - C has done all he could to make his invention public – he took steps to make it public – and it will be public as soon as the patent office has done its work
- Later codified in 102(e)(2)
- This result is an exception to the inclination against "secret" PA



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§102(e)		
102	Statutory Language A person shall be entitled to a patent unless . . . [t]he invention was described in -	Notes
(e)		A 102(e) patent need “not necessarily claim” the matter in the “reference” patent. See <i>In re Wertheim</i> (CCPA 1981). However, if it does claim such matter, the inventor must resort to 102(g) and cannot swear behind based on Rule 131. See MPEP 715.
(e)(1)	an application for patent, <b>published under section 122(b)</b> , by <b>another</b> filed in the United States before the invention by the applicant for patent	Effective date of an application, <b>as a reference</b> , if the application is published under §122(b), is its effective US f/d, i.e., domestic priority applies [§119(e), §120] - “another” means a different inventive entity - §122(b) requires publication of applications (even if not yet issued) 18 months after earliest filing date. NOTE: under (e)(1) it does not matter if the published application never issues
(e)(2)	a <b>patent granted</b> on an application for patent by <b>another filed in the United States before the invention by the applicant</b> for patent	Effective date of a US patent <b>as a reference</b> is its US f/d - “another” means a different inventive entity - Foreign priority f/d does not apply [§119(a)] - Domestic priority f/d does apply [§119(e), §120]
(e)	except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application <b>designated the United States</b> and was published under Article 21(2) of such treaty in the <b>English language</b>	An application published by WIPO under the Patent Cooperation Treaty (PCT), if published in English and designating the US, is a reference as of its PCT filing (not publication) date (which is also its effective US f/d). This also means that a US patent issuing from an international application meeting these conditions will have a 102(e) prior art date corresponding to the international filing date
4-89		

Agawam Woolen v. Jordan (US 1868)
<ul style="list-style-type: none"> <li>● Patented machine for manufacturing wool &amp; other fibrous materials</li> <li>● Patentee’s assignee brought infringement action against Agawam</li> <li>● The lower court took evidence that the patentee received considerable assistance from Ed Winslow <ul style="list-style-type: none"> <li>● Winslow was a blacksmith employed by the patentee</li> <li>● Issue is whether this assistance in creating the improved machine rose to a level such that the patentee derived from Winslow</li> </ul> </li> <li>● Court rejects that the patentee derived from Winslow.</li> <li>● Court notes that “suggestions from another . . . must have embraced the plan of the [invention] [and be enabling]” <ul style="list-style-type: none"> <li>● Original inventorship is not negated merely by reason of having received a suggestion or material from another</li> <li>● The communication must have “enabled an ordinary mechanic . . . to construct and put the improvement in successful operation”</li> </ul> </li> </ul>
4-90

**Agawam Woolen v. Jordan (US 1868)**

- Statutory codification is §102(f)
  - One is not entitled to a patent if one claims an invention he or she did not conceive
  - Derivation is claiming an invention I did not conceive
  - Inventive entity is important
    - For example, a father cannot claim an invention that is really from a joint invention of the father and his daughter
  - §102(f) applies to factual situations where §102(a) does not apply
    - There is no “in this country” limitation
- Other formulations of the derivation standard
  - Taking the gist or essence of the invention
  - Can there can still be derivation even if some limitation(s) were not derived? How much of the “invention” has to be communicated? The claimed invention, i.e., an anticipating communication? Or, something less?
    - Federal Circuit rejects test of taking so much of the claimed invention as would have made the claimed invention obvious to a PHOSITA [Gambro Lundia (Fed. Cir. 1997)]
    - Instead, follows the “enablement” standard of Agawam - “enabled an ordinary mechanic . . . “
    - But we will return to 102(f) and obviousness later.

**Classifying Prior Art**

(12) **United States Patent**  
Kania et al.

(11) Patent No.: **US 6,891,044 B2**  
(45) Date of Patent: **May 10, 2005**

(54) **INDAZOLE COMPOUNDS AND PHARMACEUTICAL COMPOSITIONS FOR INHIBITING PROTEIN KINASES, AND METHODS FOR THEIR USE**

(75) Inventors: Robert Steven Kania, San Diego, CA (US); Steven Lee Bomber, Occidental, CA (US); Alan L. Berchardt, San Diego, CA (US); Stephan James Cripps, San Diego, CA (US); Ir Hua, La Jolla, CA (US); Michael David Johnson, San Diego, CA (US); Theodore Otto Johnson, Jr., San Diego, CA (US); Hing The Lam, San Diego, CA (US); Cynthia Louise Palmer, La Mesa, CA (US); Siegfried Heine Reibel, Solana Beach, CA (US); Anna Maria Tromprak-Blassel, Ramona, CA (US); Min-Yong, San Diego, CA (US); Christine Thomas, Westborough, MA (US); Michael David Varney, Solana Beach, CA (US); Michael Herman Wallace, San Diego, CA (US); Michael Raymond Collins, San Diego, CA (US)

(73) Assignee: **Agaveon Pharmaceuticals, Inc.**, San Diego, CA (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10326107**

(22) Filed: **Feb. 15, 2003**

(65) **Prior Publication Data**  
US 2004/022038 A1 Nov. 4, 2004

**Related U.S. Application Data**

(62) Division of application No. 09/980,780, filed on Oct. 25, 2001, which is a division of application No. 09/609,030, filed on Mar. 30, 2001, are abandoned.

(60) Provisional application No. 60/142,131, filed on Jul. 2, 1999.

(51) **Int. Cl.** ..... **C07D 401/02**

(52) **U.S. Cl.** ..... **514/314, 333, 514/338, 397, 546/152, 256, 275.7, 546/312.4, 362.5**

(58) **Field of Search** .....

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(57) **ABSTRACT**

Indazole compounds that modulate and/or inhibit the activity of certain protein kinases are described. These compounds and pharmaceutical compositions containing them are capable of modulating tyrosine kinase signal transduction and thereby modulate and/or inhibit neuronal cell proliferation. The invention is also directed to the therapeutic or prophylactic use of pharmaceutical compositions containing such compounds, and to methods of treating cancer and other disease states associated with unregulated angiogenesis and/or cellular proliferation, such as diabetic retinopathy, neovascular glaucoma, rheumatoid arthritis, and psoriasis, by administering effective amounts of such compounds.

45 Claims, No Drawings

## Section 102(f)

- Must show “communication” from actual inventor of “entire conception”
  - So “derivation” has nothing to do with “independent inventor”
- Must enable the entire claimed invention
  - If not, may still be “joint inventor”
- Plagiarism of another’s patent?
  - Will only be “derivation” if the other patent supports the entire claimed invention.

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## Novelty Exercises

???

While working in her United States laboratory, Andrea conceives of the idea of using a certain compound as a semiconductor dopant on January 10, 2006. She writes the idea down in her notebook under the heading "Dopant X Project," but immediately puts it aside in favor of completing some other projects of a personal and professional nature. Eventually, she turns again to "Dopant X," and after some intermittent efforts she fabricates a working semiconductor chip on August 14, 2006. She immediately notifies her patent attorney of the invention, and an application is filed on October 1, 2006. During this entire process, she maintains the invention in secrecy.

Based upon the different additional facts provided below, will Andrea be awarded priority of invention? Unless otherwise noted, assume that all activity occurred within the United States.

1. Benkei, an electrical engineer based in Japan, had described the use of Dopant X in a Japanese electronics journal published on November 3, 2006.

2. Chelsea conceived of Dopant X on June 15, 2006, and by working continuously on the project was able to produce the chip on September 1, 2006.

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### Novelty Exercises

???

3. Diane developed the idea of using Dopant X on September 3, 2005. She did nothing more on the project until the start of the new year, but then worked on a full-time, daily basis beginning January 3, ~~2004~~ 2006. She was at last able to construct a working chip on November 20, 2006.

4. Edward conceived of the invention on January 15, 2006, and continued work on the project for the next two months. After several false starts, he halts work on the project entirely on March 21, 2006. After spending some spare moments reflecting on his earlier work in the early summer months, he then renews his efforts on the project in late July. He successfully builds the semiconductor on August 7, 2006.

5. Felicia conceives of a new transistor on June 20, 2005, and immediately informs her patent agent. A patent application claiming the transistor is filed on December 1, 2005. Along with several other doping agents described as useful in implementing the transistor through semiconductor materials, the application's specification suggests the use of Dopant X. Felicia then constructs the transistor using a known dopant on June 4, 2007. Her patent is granted on April 23, 2008.