

Introduction to Intellectual Property Law

January 30, 2013

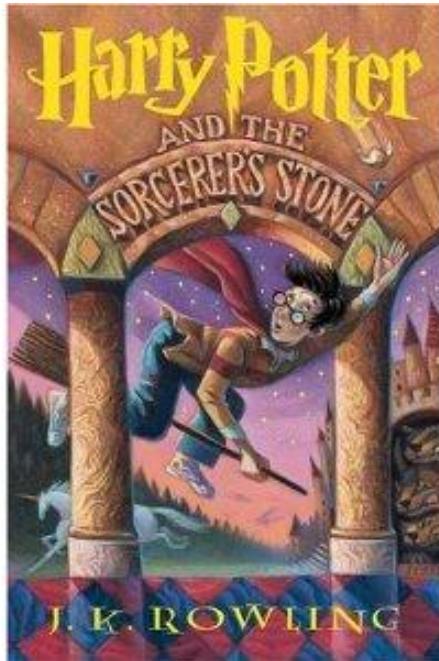
Prof. Peter Lee

UC Davis School of Law

Introduction to Intellectual Property



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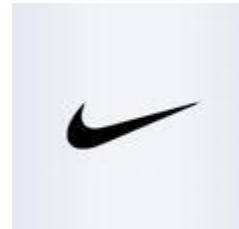
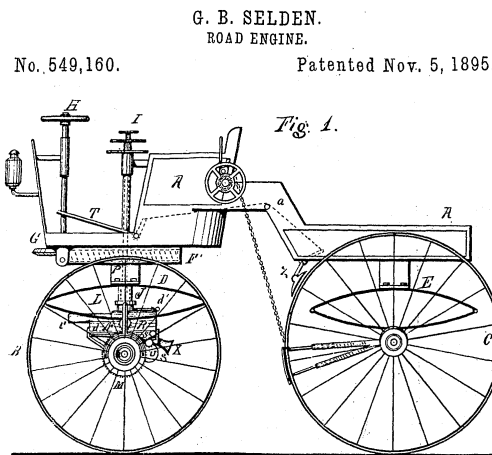


Agenda

- Introduction
- Theories of intellectual property
- Doctrinal areas
 - Trade secrets
 - Patents
 - Copyrights
 - Trademarks

What is Intellectual Property Law?

- Legal doctrines conferring exclusive rights on **intangible assets**
 - Technical designs
 - Creative expressions
 - Market symbols
 - Information

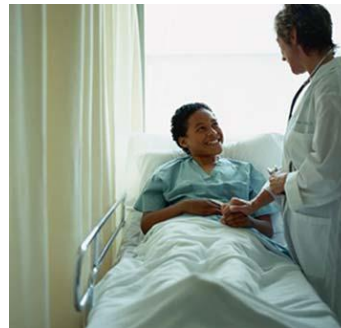


Importance of Intellectual Property

- Intellectual property has enormous economic significance
 - U.S. intellectual property is worth \$5-5.5 trillion
 - 2008: U.S. IP companies generated nearly \$7.7 trillion in gross output
- “Innovation has been essential to our prosperity in the past, and it will be essential to our prosperity in the future.”
 - U.S. President Barack Obama, Aug. 2009

Importance of Intellectual Property

- Fueling innovative, creative, and commercial progress

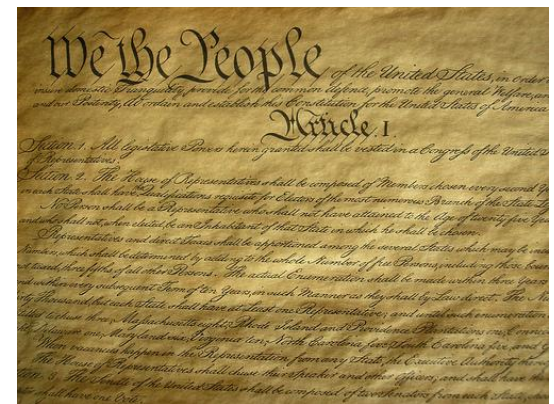


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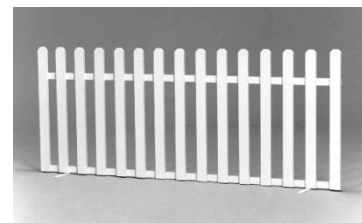
Theories of Intellectual Property

- Utilitarian/Economic Incentive
 - Incentives to create
 - “The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”
 - U.S. Const. art. I, § 8, cl. 8
 - Applies to patent and copyright
 - Applies in part to trade secrets
 - Lower information costs
 - Applies to trademark



Incentives to Create

- It costs Merck Pharmaceuticals \$802 million to discover a new drug, obtain regulatory approval, and bring it to market
- In the absence of patent protection, what would Merck's competitors do?
 - Copy it
 - Reduces Merck's incentive to invest in R&D
- Patents allow rights-holders to exclude others from exploiting their creations without authorization
 - Enhances incentives to invent and create



Theories of Intellectual Property

- Businessman Philip Knight wants a way for consumers to immediately recognize his high-quality athletic shoes
- How can he do so?



- Trademarks:
 - Lower information and search costs
 - Allow firms to develop and benefit from consumer goodwill

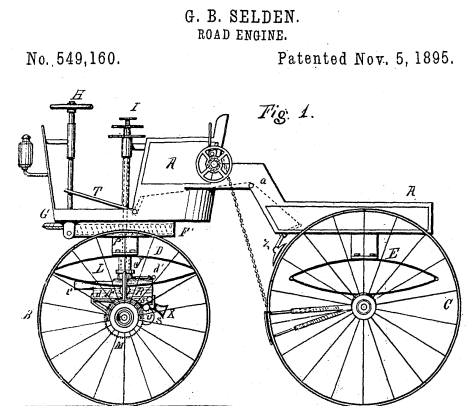
Trade Secrets

- Subject matter
 - Formulae, patterns, compilations, programs, devices, methods, techniques, processes
- Source of law
 - State and common law, some federal law
- Standard for protection
 - Information is “secret” and valuable
 - Reasonable efforts to maintain secrecy
- Length of protection
 - Until the secret becomes public knowledge



Patents

- Subject matter
 - Processes, machines, manufactures, compositions of matter, improvements, certain plants, designs
- Source of law
 - Patent Act (federal)
- Standard for protection
 - Patentable subject matter
 - Disclosure and enablement
 - Utility
 - Novelty
 - Statutory bars
 - Nonobviousness
- Length of protection
 - 20 years from date of filing



Copyrights

- Subject matter
 - Literary, musical, choreographic, dramatic and artistic works, computer software, aesthetic elements of useful articles
- Source of law
 - Copyright Act (federal), some common law
- Standard for protection
 - Original works of authorship
 - Fixation in a tangible medium
- Length of protection
 - Life of author + 70 years
 - Institutional authors: lesser of 95 years after publication or 120 years after creation



Trademarks

- Subject matter
 - Trademarks, service marks, certification marks, collective marks



- Source of law

- Lanham Act (federal), common law (unfair competition)



- Standard for protection

- Distinctiveness
- Use in commerce
- Famousness (for dilution protection)



- Length of protection

- Indefinitely; as long as it signifies a source



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Introduction to Trade Secrets

- State law doctrines protecting against misappropriation of valuable, secret technical and business information



Accu-Vac[®]
Control Valves



Rugged, reliable and accurate

The Kadant AES Accu-Vac® is a 3-way vacuum control valve that improves forming table operation, providing precise control, atmospheric vacuum break and increased flexibility.

The Accu-Vac design minimizes maintenance costs associated with typical vacuum control valves and provides for simple operation.

Valve controls allow for integration with existing mill-wide systems or stand-alone closed loop systems.

Accu-Vac's unique actuator, along with three step algorithmic range control, provides the user with a responsive, positive and powerful vacuum control valve that eliminates sticking.

KADANT
AES
AN ACCENT ON INNOVATION

Introduction to Trade Secrets

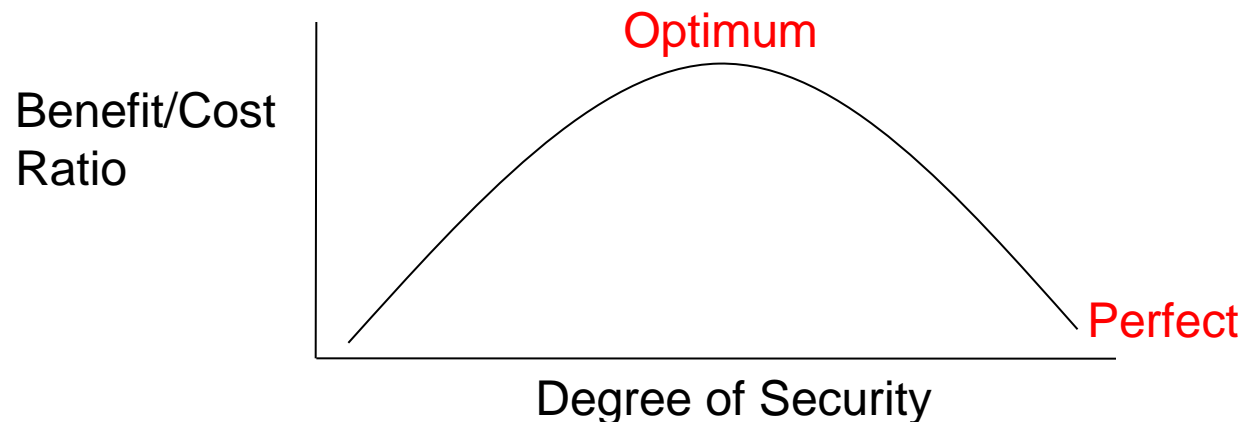
- Elements of a cause of action under the Uniform Trade Secrets Act
 - Subject matter
 - Plaintiff's reasonable precautions
 - Defendant's misappropriation

Trade Secret Subject Matter

- Secret
 - Information not *knowable* to competitors
- Valuable
 - Uniform Trade Secrets Act: strict insistence on economic value
- Required effort or expense to develop

“Reasonable Efforts” to Maintain Secrecy

- The plaintiff must have taken “reasonable efforts” to maintain secrecy
 - E.g., confidentiality agreements, security guards, safes, internal procedures
- Perfect versus optimum security



Misappropriation

- Varieties of misappropriation
 - Breach of a confidential relationship
 - Improper means



- Activities not constituting misappropriation
 - Independent invention
 - Reverse engineering

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Constitutional Basis of Patent Law

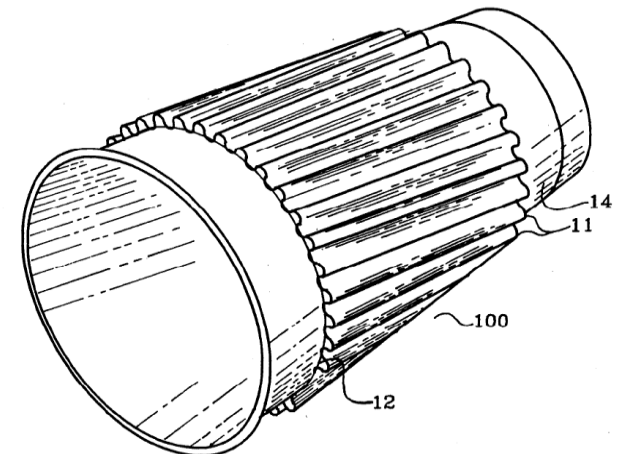
- “The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”
 - U.S. Const. art. I, § 8, cl. 8



Overview of Patent Law

- The essential quid pro quo: disclosure of a novel, useful, and nonobvious invention for exclusive rights
 - Patents as a public education initiative
 - Contrast with trade secret protection

United States Patent [19] Coffin, Sr.		 US005205473A
[11] Patent Number: 5,205,473		
[45] Date of Patent: Apr. 27, 1993		
[54] RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER		
[75] Inventor: David W. Coffin, Sr., Fayetteville, N.Y.		
[73] Assignee: Design By Us Company, Philadelphia, Pa.		
[21] Appl. No.: 854,425		
[22] Filed: Mar. 19, 1992		
[51] Int. Cl.: B65D 3/28		
[52] U.S. Cl.: 229/1.5 B; 206/813; 220/441; 220/DIG. 30; 229/1.5 H; 229/DIG. 2; 493/296; 493/907		
[58] Field of Search 229/1.5 B, 1.5 H, 4.5, 229/DIG. 2; 220/441, 671, 737-739, DIG. 30; 493/287, 296, 907, 908; 209/8, 47, 215; 206/813		
[56] References Cited		
U.S. PATENT DOCUMENTS		
1,732,322 10/1929 Wilson et al. 220/DIG. 30 1,771,765 7/1930 Benson 229/4.5 2,266,828 12/1941 Sykes 229/1.5 B 2,300,473 11/1942 Winkle 229/4.5 2,501,815 3/1950 Hamm 2,617,549 11/1952 Egger 2,641,402 6/1953 Bruun 229/4.5		
2,661,889 12/1953 Phinney 229/4.5 2,969,901 1/1961 Behrens 229/1.5 B 3,237,834 3/1966 Davis et al. 229/1.5 B 3,779,157 12/1973 Ross, Jr. et al. 53/527 3,785,254 1/1974 Mann 3,890,762 6/1975 Ernst et al. 3,908,523 9/1975 Shikaya 229/1.5 B 4,080,880 3/1978 Shikaya 493/296 4,146,660 3/1979 Hall et al. 4,176,054 11/1979 Kelley 209/8 5,009,326 4/1991 Reaves et al. 5,092,485 3/1992 Lee 229/1.5 B		
OTHER PUBLICATIONS		
"The Wiley Encyclopedia of Packaging Technology", John Wiley & Sons, pp. 66-69, 1986.		
Primary Examiner —Gary E. Elkins Attorney, Agent, or Firm —Synnestvedt & Lechner		
ABSTRACT		
Corrugated beverage containers and holders are which employ recyclable materials, but provide fluting structures for containing insulating air. These products are easy to hold and have a lesser impact on the environment than polystyrene containers.		
18 Claims, 8 Drawing Sheets		



Patents and Applications

5,205,473

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RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER

FIELD OF THE INVENTION

This invention relates to insulating containers, and especially those which are recyclable and made of cellulosic materials.

BACKGROUND OF THE INVENTION

Hot beverage containers have traditionally been constructed of two materials: wax-coated paper and polystyrene. Although both products have received wide spread implementation by fast food restaurants and consumers, they each have their own specialized drawbacks which have yet to be overcome.

Polystyrene is an excellent insulator, and because of its unique moldability, can be formed into a myriad of different shapes and sizes. Unfortunately, however, polystyrene is neither easily recyclable nor biodegradable, and must be disposed in a sanitary landfill. Landfills have become extremely expensive to use and are rapidly being filled to capacity. Polystyrene can also be incinerated, but this disposal method requires a significant amount of environmental safeguards because of the toxic fumes polystyrene emits while burning.

Wax-covered paper products have been used in beverage containers for years, and have increasingly been replacing polystyrene as the material of choice. This material is generally recyclable, and is more readily degraded by environmental exposure than polystyrene. Unfortunately, because of its low insulation qualities, containers made of this material are very difficult to handle.

Accordingly, there is a need for a food and beverage container which provides adequate insulation for comfortable handling, but which is generally friendly to the environment. Such a container must be inexpensive, so as to be a cost effective substitute for either paper or polystyrene alternatives.

SUMMARY OF THE INVENTION

This invention provides recyclable, corrugated containers and container holders which can be made from existing cellulosic materials, such as paper. The preferred recyclable, corrugated hot beverage container includes a lip and an internal cavity for containing a hot or cold medium. The container includes fluting means, such as fluting adhesively attached to one or more liners, for thermally spacing the hands of the user from the harsh temperatures of the contents of the container.

In the preferred holders of this invention, a corrugated tubular member is provided having at least a first opening for receiving and retaining a cup, or the like. The tubular member's corrugation, like that for the container above, includes fluting means for providing insulating air pockets. The holder can also be fashioned to be collapsible about two or more pivot points for flat storage.

Accordingly, the deficiencies of both paper and polystyrene are overcome at a minimum expense. The containers of this invention can be used for comfortably holding a variety of beverages, such as hot chocolate, soup, or coffee. The provided holders can be used in conjunction with paper cups, aluminum cans, or other beverage containers, without the discomfort associated with condensation and extreme temperatures.

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BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings illustrate preferred embodiments of the invention according to the practical application of the principles thereof, and in which:

FIG. 1: is a top planar view of a preferred beverage container holder of this invention;

FIG. 2: is a bottom planar view of the preferred beverage container holder of FIG. 1;

FIG. 3: is a perspective view of the preferred beverage container holder of FIG. 1 disposed around a paper cup;

FIG. 4: is a top view of the preferred beverage container holder of FIG. 1 in a collapsed and flattened condition;

FIG. 5: is a side view of the flattened beverage container holder of FIG. 4;

FIGS. 6a and 6b: are enlarged partial views of preferred fluting structures, in which FIG. 6a illustrates a sinuous fluting adhered to a single liner, and FIG. 6b illustrates a sinuous fluting adhered to an inner and outer liner;

FIGS. 7a and 7b: are enlarged partial views of an alternative fluting structure, in which FIG. 7a illustrates an angular flute adhered to a single lining, and FIG. 7b illustrates an angular flute adhered to an inner and outer liner;

FIG. 8: is a top planar view of a preferred beverage container holder having an inner and outer liner;

FIG. 9: illustrates a planar bottom view of the preferred hot beverage container holder of FIG. 8;

FIG. 10: is a perspective view of the preferred beverage container holder of FIG. 8 illustrating internal flute portions in break-away views;

FIG. 11: is a top planar view of the preferred corrugated beverage container;

FIG. 12: is a bottom planar view of the preferred corrugated beverage container of FIG. 11; and

FIG. 13: is a perspective view of the preferred corrugated beverage container of FIG. 11 illustrating internal flute portions in break-away views.

DETAILED DESCRIPTION OF THE INVENTION

This invention provides corrugated beverage container holders and beverage containers which are environmentally friendly and which provide adequate insulation properties approaching those of polystyrene. The corrugated tubes of these products preferably contain longitudinally extending flutes and include a generally tapered or conical structure, typical of beverage containers. The corrugation can be made of cellulosic materials, including craft paper, sulfite paper, or recycled paper. Ideally, the fluting and liners of this invention are adhered to one another with a recyclable, and preferably, a biodegradable adhesive, for example, R130 adhesive by Fasson Inc., Grand Rapids, MI.

With reference to FIGS. 1-5, there is shown, in multiple views, a preferred beverage container holder 100 of this invention. The preferred holder 100 includes a tubular structure having an inner liner 12 and sinuous fluting 11 disposed around the periphery of the liner 12.

The preferred material of this invention, corrugated cardboard, is generally available in rather large widths of about 5 to 7 feet. The corrugated medium, a web of paperboard, or more preferably, virgin kraft or similar easily recycled cellulosic material, is heated and moistened by a steam shower and then fluted by passing it

• Specification

- Long narrative portion of the patent

• Claims

- E.g., “A windmill comprising a wind-catching device, directed to face the oncoming wind force, said device turning a shaft acting on gears or another device to change the direction of said wind force, so as to operate a pump that pumps water.”

Overview of Patent Law

- The nature of patent rights
 - “[T]he right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States.”
 - 35 U.S.C. § 154(a)(1)
 - Monopolies?
 - Patent trolls
- Term: 20 years from the date of filing
- Application and examination process

Overview of Patent Law

- Substantive requirements of patentability
 - Patentable subject matter
 - Utility
 - Disclosure and enablement
 - Novelty
 - Statutory bars
 - Nonobviousness

Patentable Subject Matter

- 35 U.S.C. § 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.

Patentable Subject Matter

- Diamond v. Chakrabarty (1980)
 - Is a genetically-engineered bacterium patentable subject matter?
 - Yes
 - “In choosing such expansive terms as ‘manufacture’ and ‘composition of matter,’ modified by the comprehensive ‘any,’ Congress plainly contemplated that the patent laws would be given wide scope.”
- Association for Molecular Pathology v. Myriad Genetics (2013)
 - Patentability of isolated DNA

Utility

- Easy to satisfy
- Varieties of utility
 - Operability
 - Does the invention work?
 - Substantial and Specific Utility
 - Is the utility substantial enough?
 - Brenner v. Manson (1966)
 - » A process for creating chemicals of no known utility is not itself useful
 - Beneficial or Moral Utility
 - Modern patent law rarely inquires into morality

Disclosure and Enablement

- 35 U.S.C. § 112
 - Written description
 - Enablement
 - Enable a “PHOSITA”
 - No “undue experimentation”
 - Best mode
 - Specific techniques or instrumentalities known for practicing an invention
 - Claim definiteness
 - Clear terms
 - No “insoluble ambiguity”

US005205473A

United States Patent [19]

[11] Patent Number: 5,205,473

Coffin, Sr.

[45] Date of Patent: Apr. 27, 1993

[54] RECYCLABLE CORRUGATED BEVERAGE CONTAINER AND HOLDER

[75] Inventor: David W. Coffin, Sr., Fayetteville, N.Y.

[73] Assignee: Design By Us Company, Philadelphia, Pa.

[21] Appl. No.: 854,425

[22] Filed: Mar. 19, 1992

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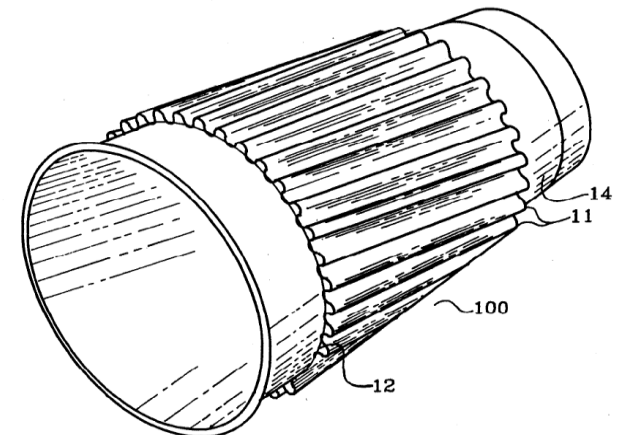
"The Wiley Encyclopedia of Packaging Technology",
 John Wiley & Sons, pp. 66-69, 1986.

Primary Examiner—Gary E. Elkins
 Attorney, Agent, or Firm—Synnestvedt & Lechner

[57] ABSTRACT

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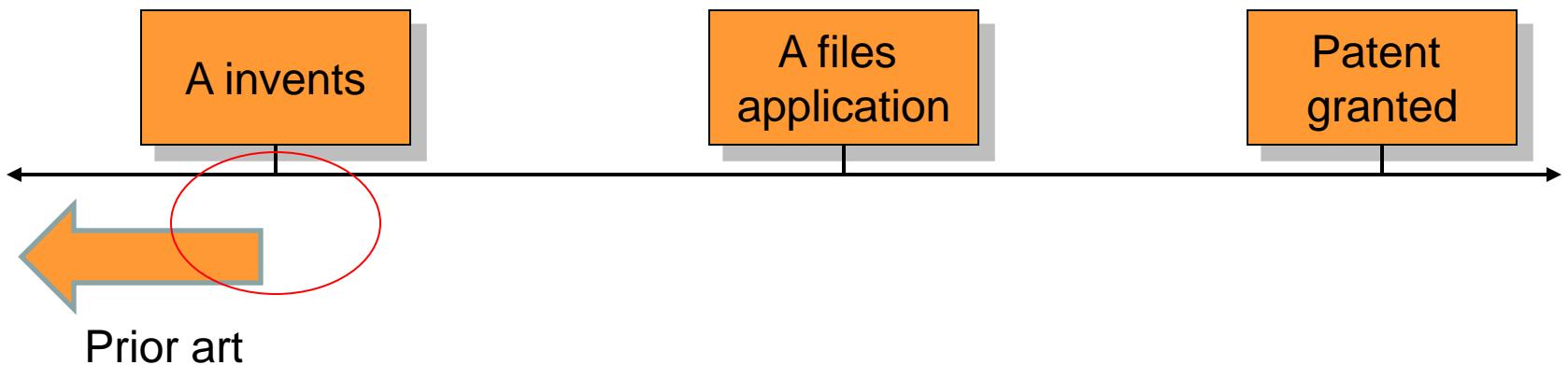
Novelty (Current Rules)

- New compared to the prior art
- Not novel = anticipated
- A claimed invention is anticipated if a single prior art reference (available before the date of invention) contains all elements of the invention



Novelty (Current Rules)

- U.S.: currently first to invent

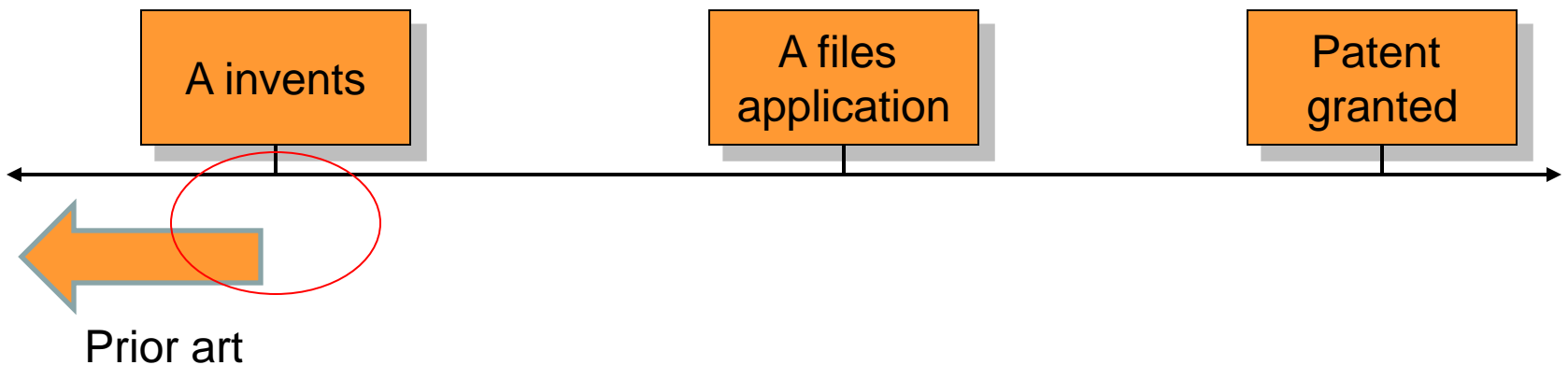


Novelty (New Rules)

- Leahy-Smith America Invents Act (2011)
- Shifts the United States from a:
 - “First-to-invent” jurisdiction to a
 - “First-to-file” jurisdiction
- Filing date, rather than invention date, determines novelty
- A claimed invention is anticipated if a single prior art reference (available before the date of filing) contains all elements of the invention

Novelty (Comparing Rules)

- U.S.: currently first to invent



- U.S.: shifting to first to file

