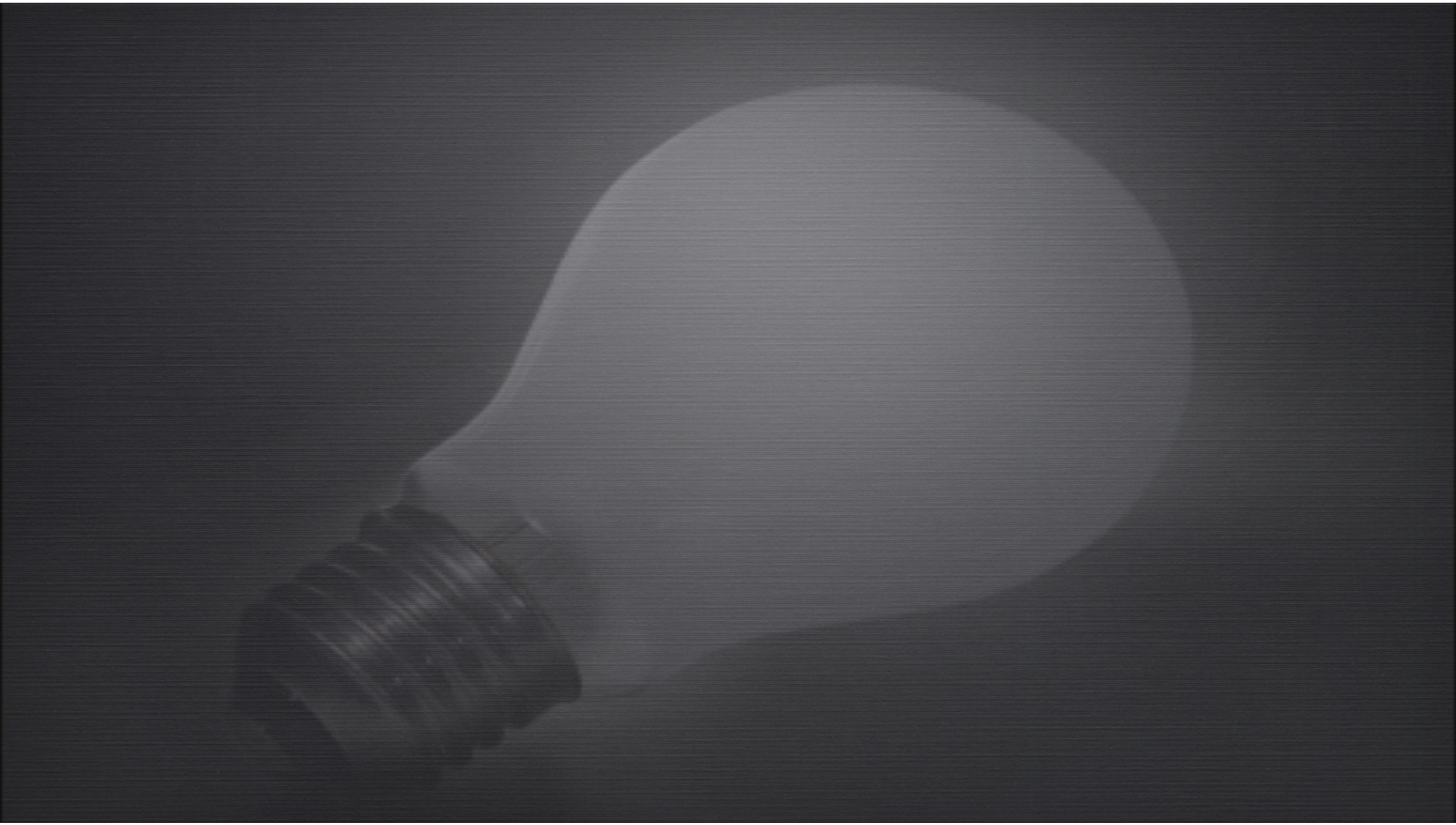


Patent Novelty & Non Obviousness

Introduction to Intellectual Property Law & Policy

Professor Wagner

Penn Law
University of Pennsylvania Law School

Lecture Agenda

Novelty

Statutory Bars

Non Obviousness

Novelty

The Basics of Novelty

All patented inventions must be "novel":

They cannot be the same ('anticipated by') as pre-existing knowledge ('prior art').

A patented invention = the claim.

(Each patent claim is evaluated independently.)

Your claim

Cannot be the same

As the prior art

Step 1

Your claim

Cannot be the same

As the prior art

1. A writing implement comprising:

   A wooden cylinder with a hollow core

   A cylinder of graphite in the hollow core

   A small cylinder of eraser material attached to one end of the wooden cylinder

Step 2

Your claim

Cannot be the same

As the prior art

What is “the same”?

(‘Anticipated’)

"Anticipation"

Each and every element of the claim is found in a prior art reference.

1. A writing implement comprising:

   A wooden cylinder with

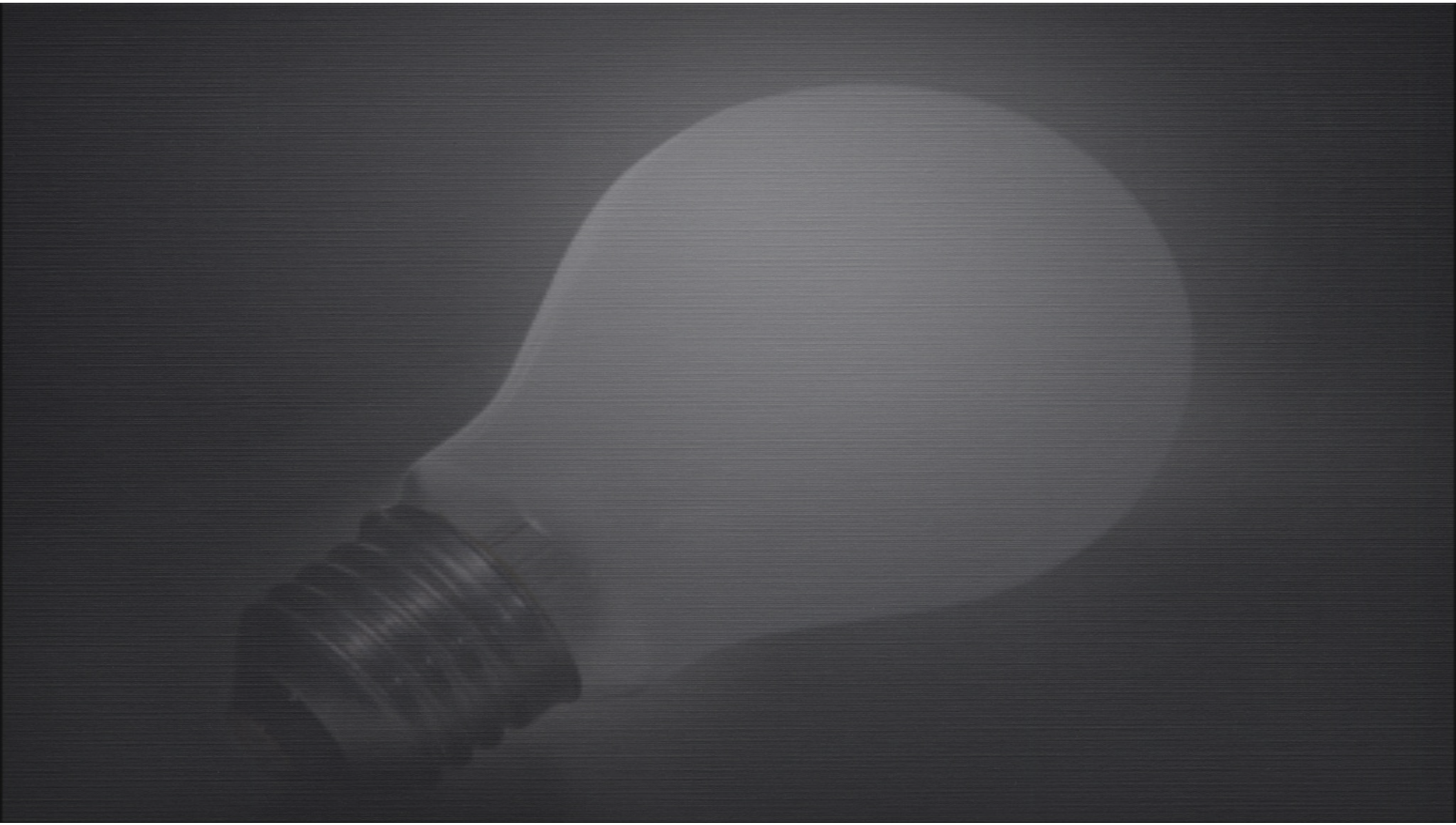
   A cylinder of graphite i

   A small cylinder of eraser material attached to one end of the wooden cylinder

Anticipated!

Claim

Prior Art



Step 3

Your claim

Cannot be the same

As the prior art

What is “the prior art”?

Public knowledge before the critical date.

"Prior Art"

Until March 16, 2013

critical date for novelty

=

date of invention

After March 16, 2013

critical date for novelty

=

'effective filing date'

note: some exceptions, including a 1-year grace period for inventor-originated disclosures

"Prior Art"

Until March 16, 2013	After March 16, 2013
known or used by others [in this country]	known or used by others [anywhere]
patented or described in a printed publication [anywhere]	patented or described in a printed publication [anywhere]

"... known or used by others ..."

"Others" means other than the inventor.

It need not be widely known – even a single "other" can suffice.

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It need not be widely known – even a single "other" can suffice.

Rosaire v Baroid (1955)

An engineer 'field trialed' a method of prospecting for oil prior to another's invention date. The trial was stopped, and nothing was published or announced. Answer: method was "known or used by others," so later invention was unpatentable.

"... printed publication ..."

Anything that is publicly accessible is a printed publication.

It needs to be possible for a PHOSITA to find. (Indexed!)

"... printed publication ..."

Anything that is publicly accessible is a printed publication.

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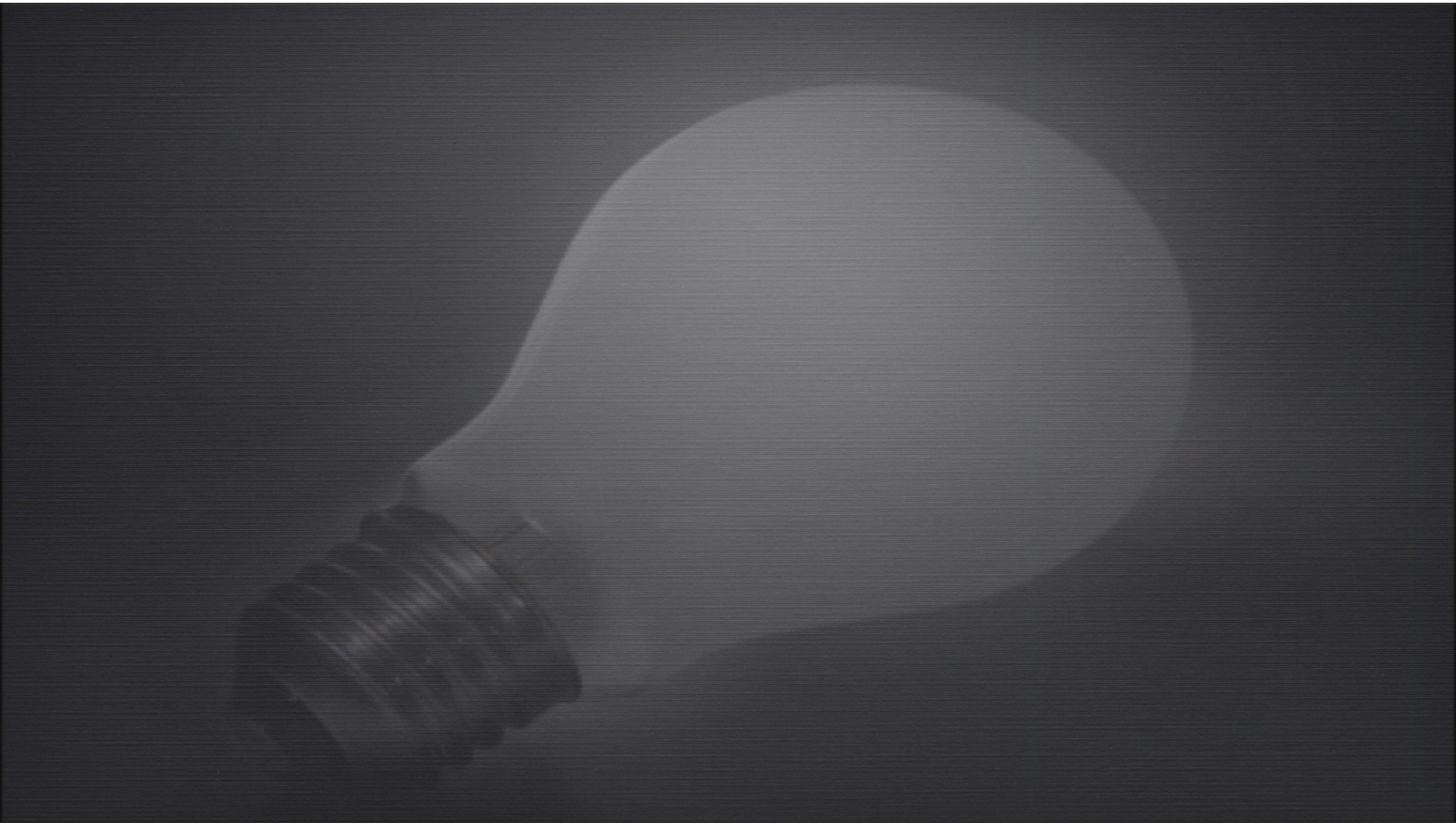
In re Klopfenstein (2004)

A 'poster presentation' shown at a meeting of the American Association of Cereal Chemists was a 'printed publication', even though neither the slides nor paper was published or disseminated. Reason: the direct targeting of the PHOSITAs at the AACC meeting made it possible for PHOSITAs to find the reference.

The Novelty Requirement

Your claim	→	Look at the claim elements
Cannot be the same	→	'Anticipation' - each element
As the prior art	→	Timing + Public Knowledge



Statutory Bars

[For patents filed before March 16, 2013]

Statutory Bars and Novelty

Note an important distinction:

Patents must be ‘novel’ (new)

and

Patents must also comply with statutory bars

Basics of Statutory Bars

The general analysis is the same as novelty.

Except .... the 'critical date' is one year prior to the filing date of the patent.
(This means patentees can trigger statutory bars on themselves!.)

Statutory bars encourage earlier filing,
and prevent commercial exploitation prior to choosing to patent.

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What can Trigger a Statutory Bar?

Any one of these activities prior to the 'critical date':

A "printed publication" describing the invention.

The "public use" of the invention in this country.

The "sale" of (or an offer to sell) the invention in this country.

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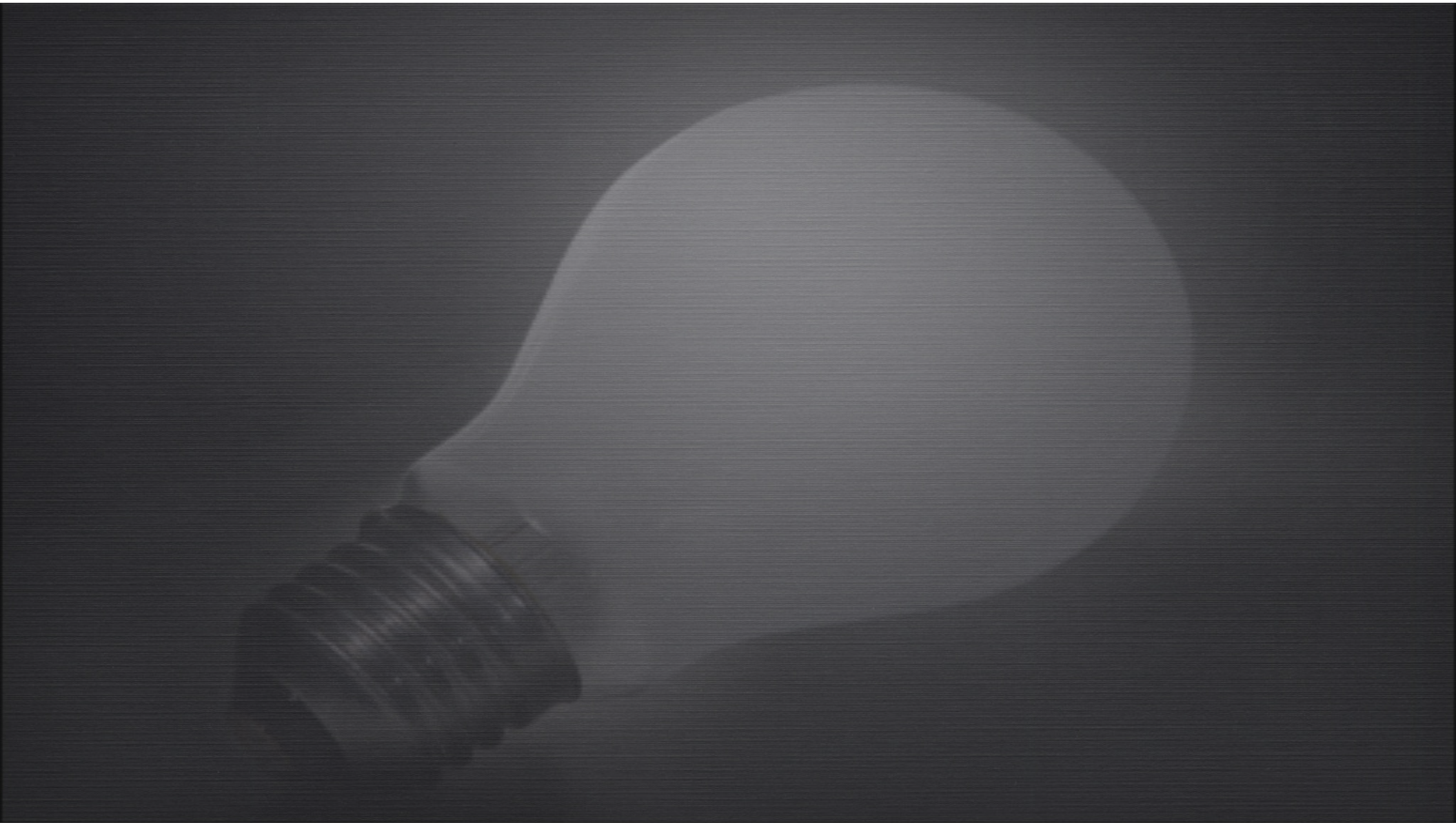

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A "printed publication" describing the invention.

The "public use" of the invention in this country.

This analysis is the same as for novelty!

[Public accessibility is the test.]

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The "sale" of (or an offer to sell) the invention in this country.

"... in public use ..."

Egbert v Lippmann (1882)

Corset springs worn discreetly (under clothes) by the inventor's "intimate friend" were 'in public use.'

What can Trigger a Statutory Bar?

Any one of these activities prior to the 'critical date':

An ordinary commercial sale or offer at any point after the invention is "ready for patenting."

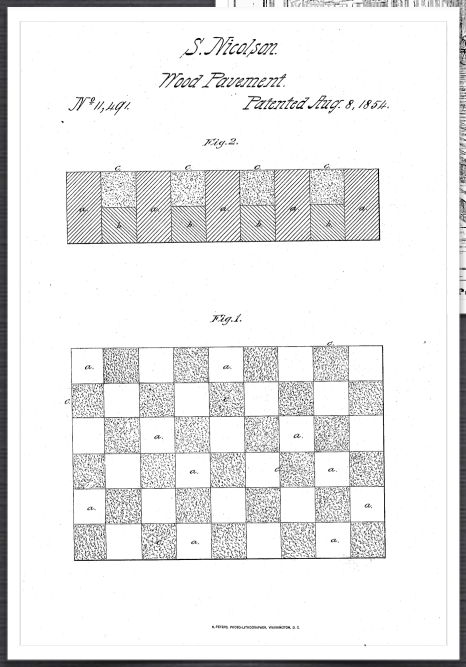
A "printed publication" describing the invention.

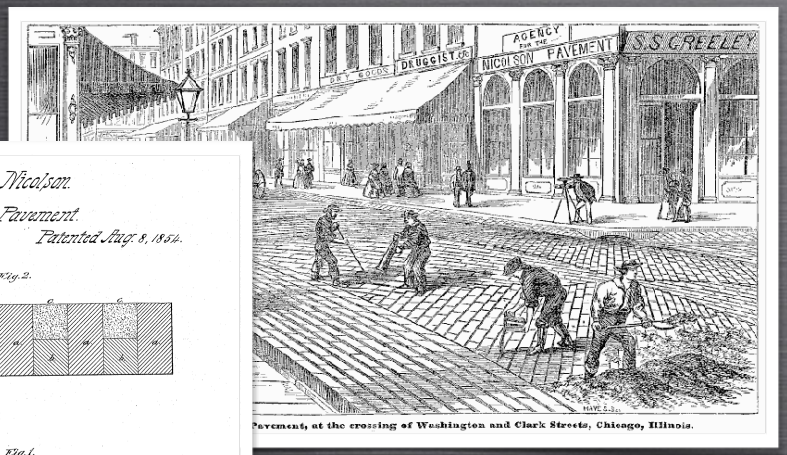
[Pfaff v Wells (1998): accepting a PO for a yet-to-be-finished product will trigger the bar if the invention was sufficiently complete to apply for a patent.]

The "public use" of the invention in this country.

The "sale" of (or an offer to sell) the invention in this country.

An exception to statutory bars: "experimental use"

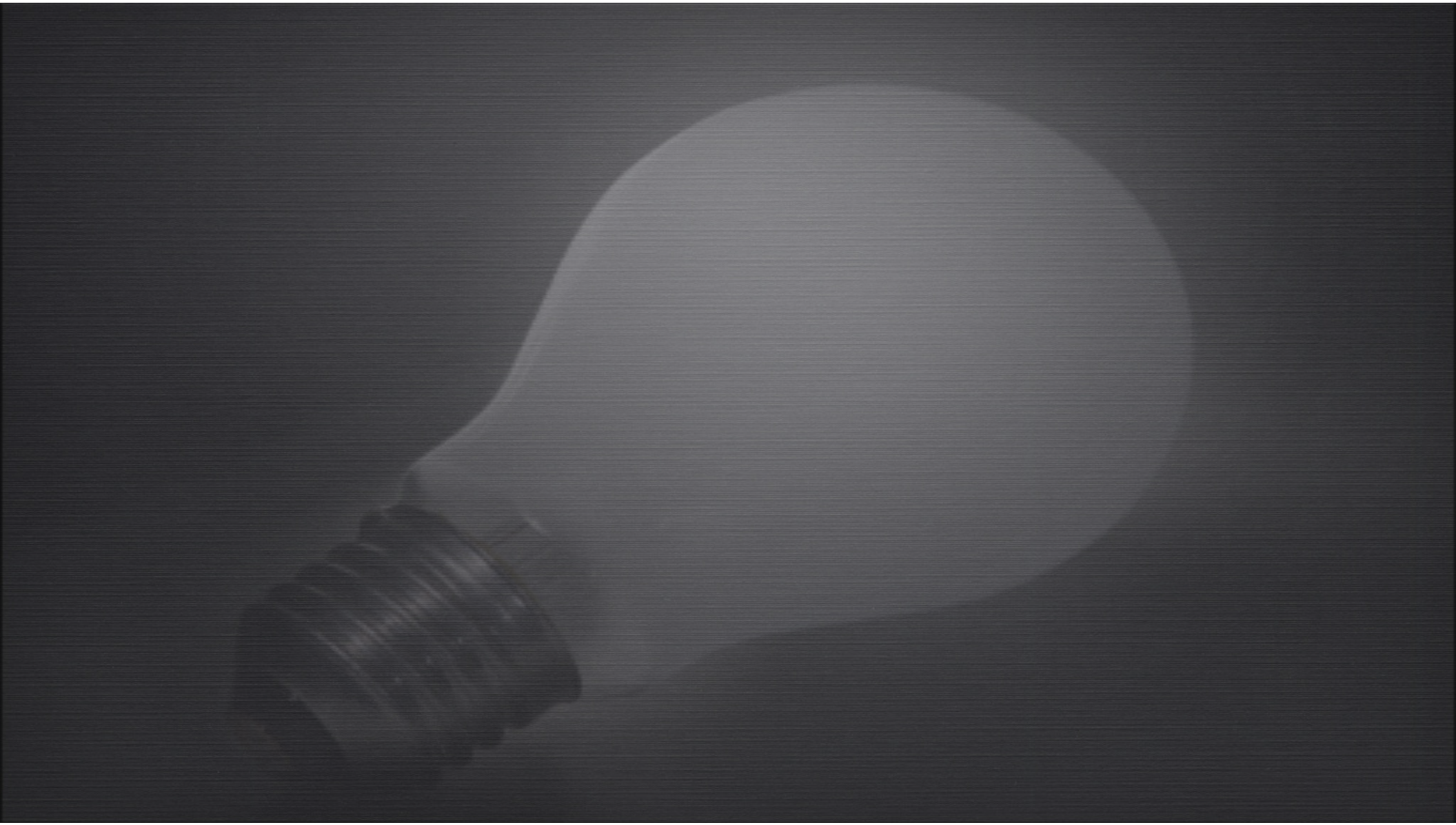

S. Nicolson.
Wood Pavement.
No 11,491. Patented Aug. 8, 1854.
Fig. 2.
Fig. 1.



Pavement, at the crossing of Washington and Clark Streets, Chicago, Illinois.

City of Elizabeth (1878)

Public use of a wooden road paving system did not trigger a statutory bar, because the use was for experimentation.



The America Invents Act of 2011:

"First to Invent" to "First to File"

35 USC § 102

Until March 16, 2013

§102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless--...

(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 . . .

"First to Invent"

After March 16, 2013

§102. Conditions for patentability; novelty

(a) NOVELTY; PRIOR ART.—A person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public **before the effective filing date of the claimed invention**;

"First to File"

First to Invent

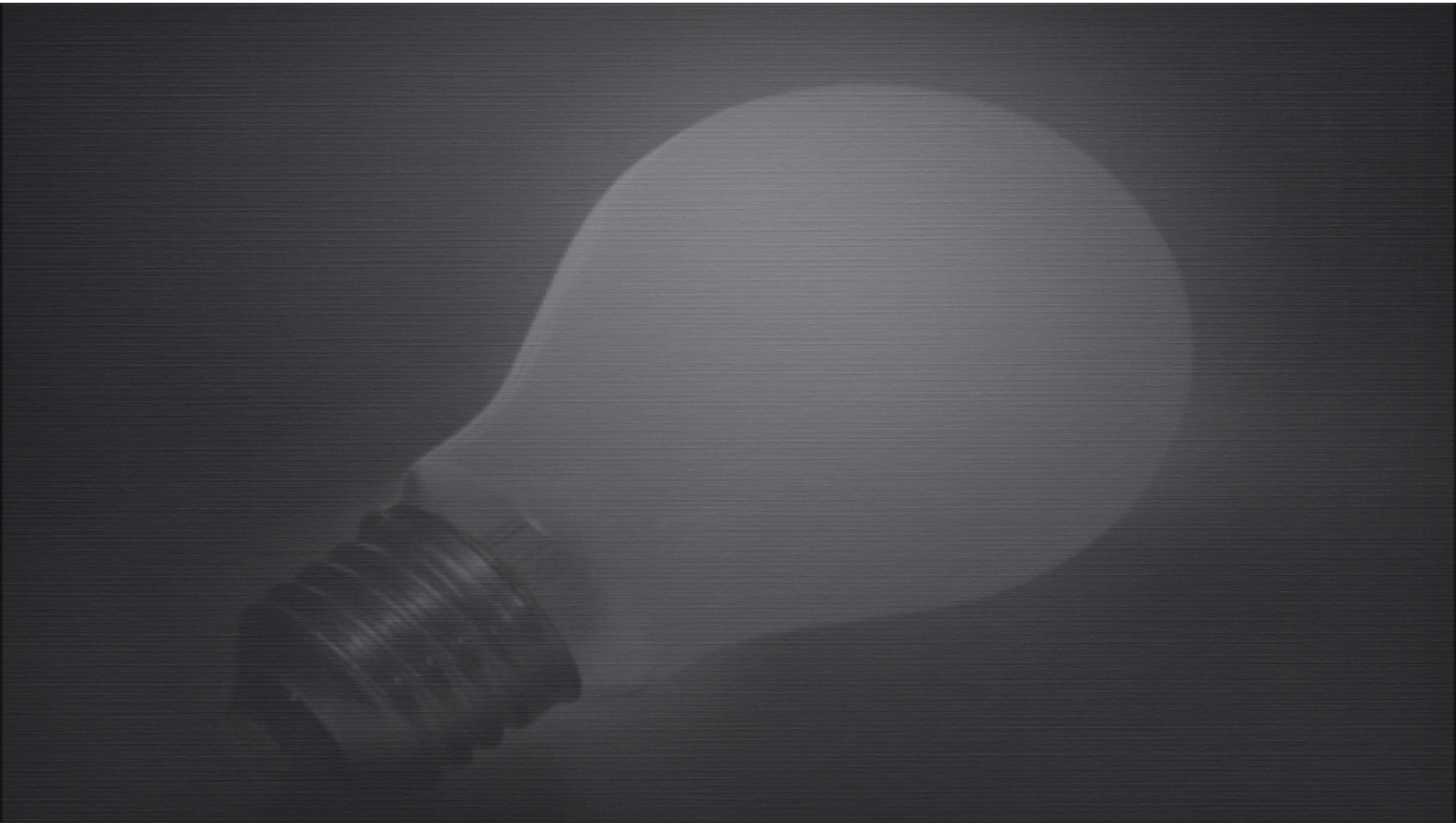
Allows for time to perfect invention, application. The most 'fair' to inventors.

Complex: proving 'date of invention' is difficult.

First to File

Simpler, easier to administer. Encourages early filing.

Unfair to smaller inventors. Filing quickly might hurt quality.



The New § 102: Exceptions to First to File

§102. Conditions for patentability; novelty

(b) EXCEPTIONS.—

(1) DISCLOSURES MADE 1 YEAR OR LESS BEFORE THE EFFECTIVE FILING DATE OF THE CLAIMED INVENTION.—A disclosure made 1 year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention under subsection (a)(1) if—

(A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor; or

(B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

The New § 102: Exceptions to First to File

(A) Disclosures by the inventor [derived from inventor]

(B) Disclosures by others IF inventor [derived from inventor] published first

Incentives Under Our "First to File" System

A strong incentive to publish your invention ASAP:

(1) your disclosure can "cancel out" another's disclosure if you disclose first

(2) your disclosure can block another inventor's patent

So our new system is not really a true first to file.
More like "first to disclose"

Note: only a one-year grace period, so you need to file diligently!

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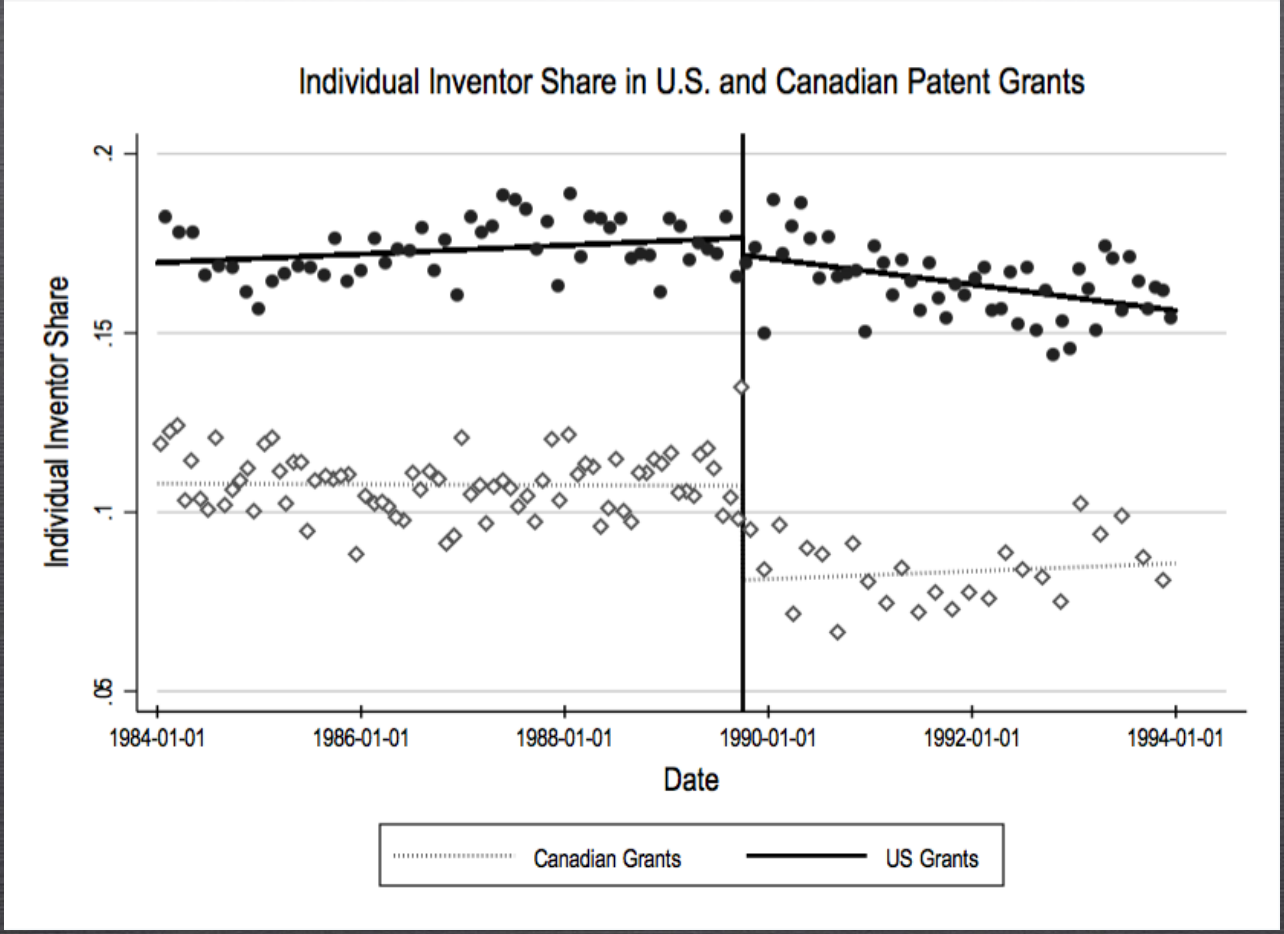
Abrams & Wagner: The Impact of First-to-File on Small Inventors

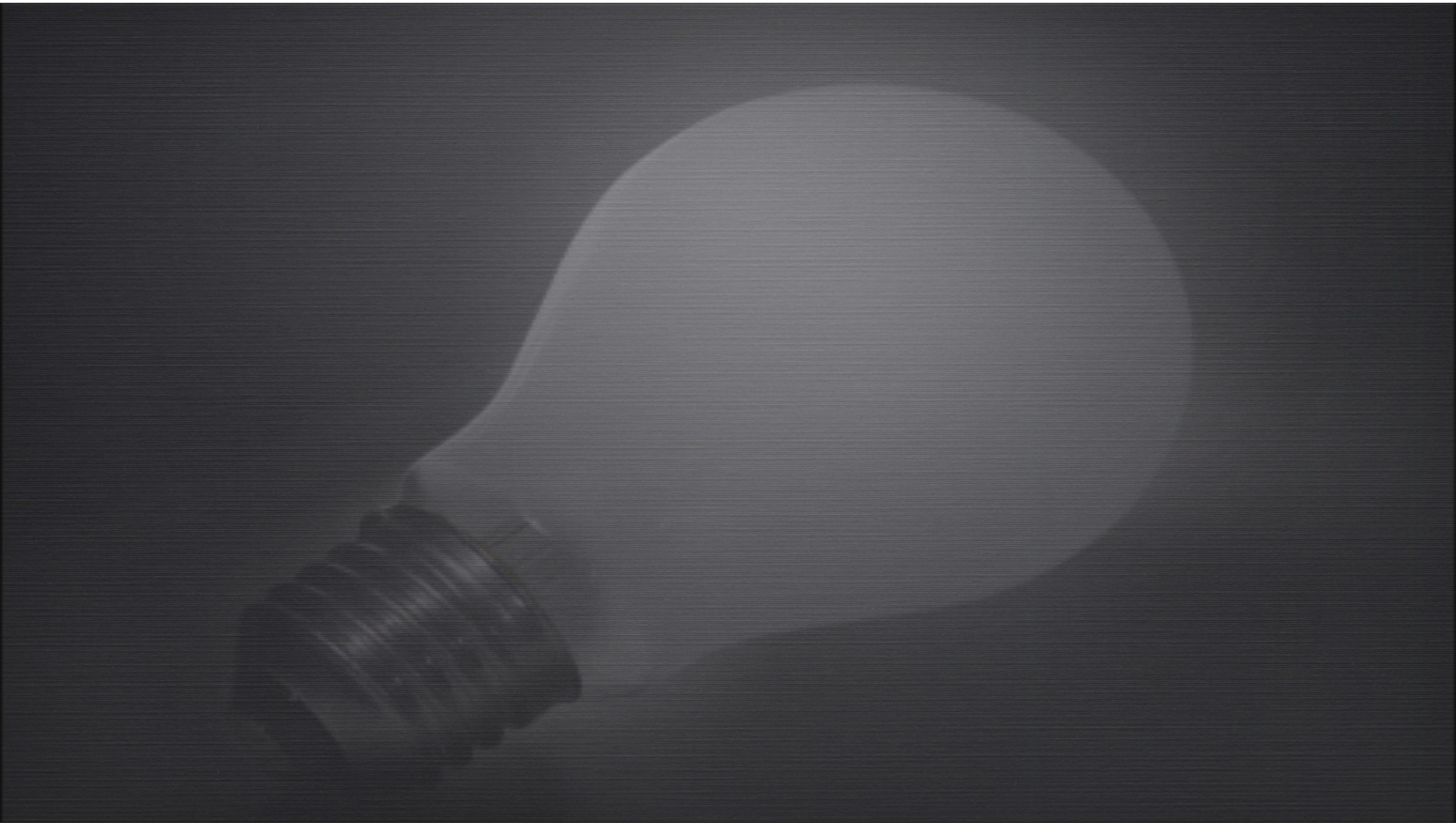


The Impact of First-to-File on Small Inventors

The change from FTI to FTF in Canada has had a substantial impact on the individual inventor share of patenting.
Perhaps as much as ±15% decrease in individual inventors.

Will this happen in the US?
Perhaps, but US law is slightly different.

Way too early to tell. We do know there was a surge of apps Feb-March 2013.



The Non Obviousness Requirement

The Standards for Patentability

A valid patent must be . . .

- ✓ Fully and appropriately described (§ 112)
- ✓ Novel (§ 102)
- ✓ In compliance with statutory bars (§ 102)
- Non obvious (§ 103)
- Useful (§ 101)
- Within the appropriate subject matter (§ 101)

Non Obviousness: Beyond Novelty

The non obviousness requirement ensures that patents are not trivial.
That they are real advances beyond the prior art.

Allowing patents for merely incremental improvements would:
(a) needlessly grant rights where incentives are not required
(b) hopelessly clog the system with weak and unimportant patents

So we ask for more in exchange for a patent: non obviousness.

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The Effects of Non Obviousness

The non obviousness requirement makes patents harder to obtain...

So patents that meet the standard are more valuable.

And there is more incentive to invest in larger advances.
(Because those are the ones that are patentable.)

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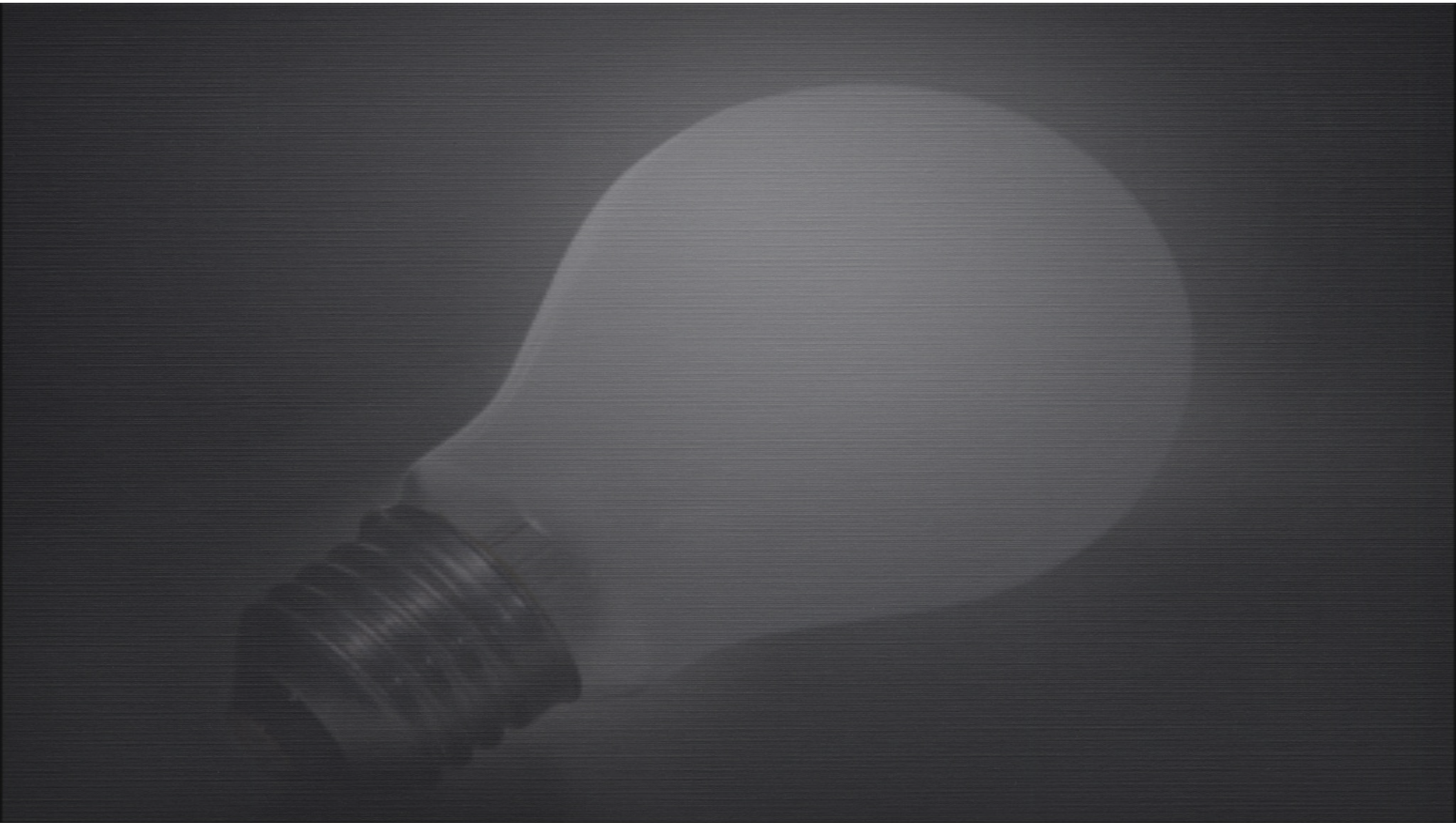
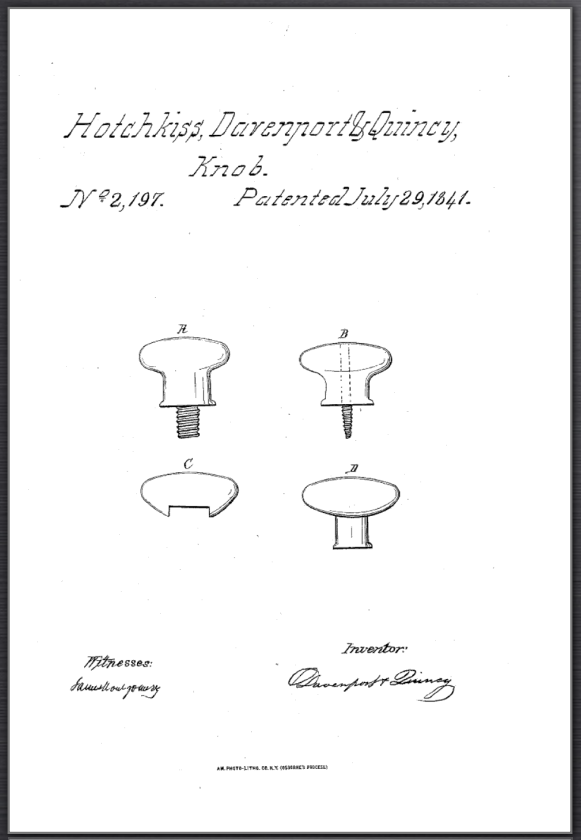


The Origins: Hotchkiss v Greenwood (1850)



Hotchkiss, Davenport & Quincy,
Knob.
No 2,197. Patented July 29, 1841.

A B C D

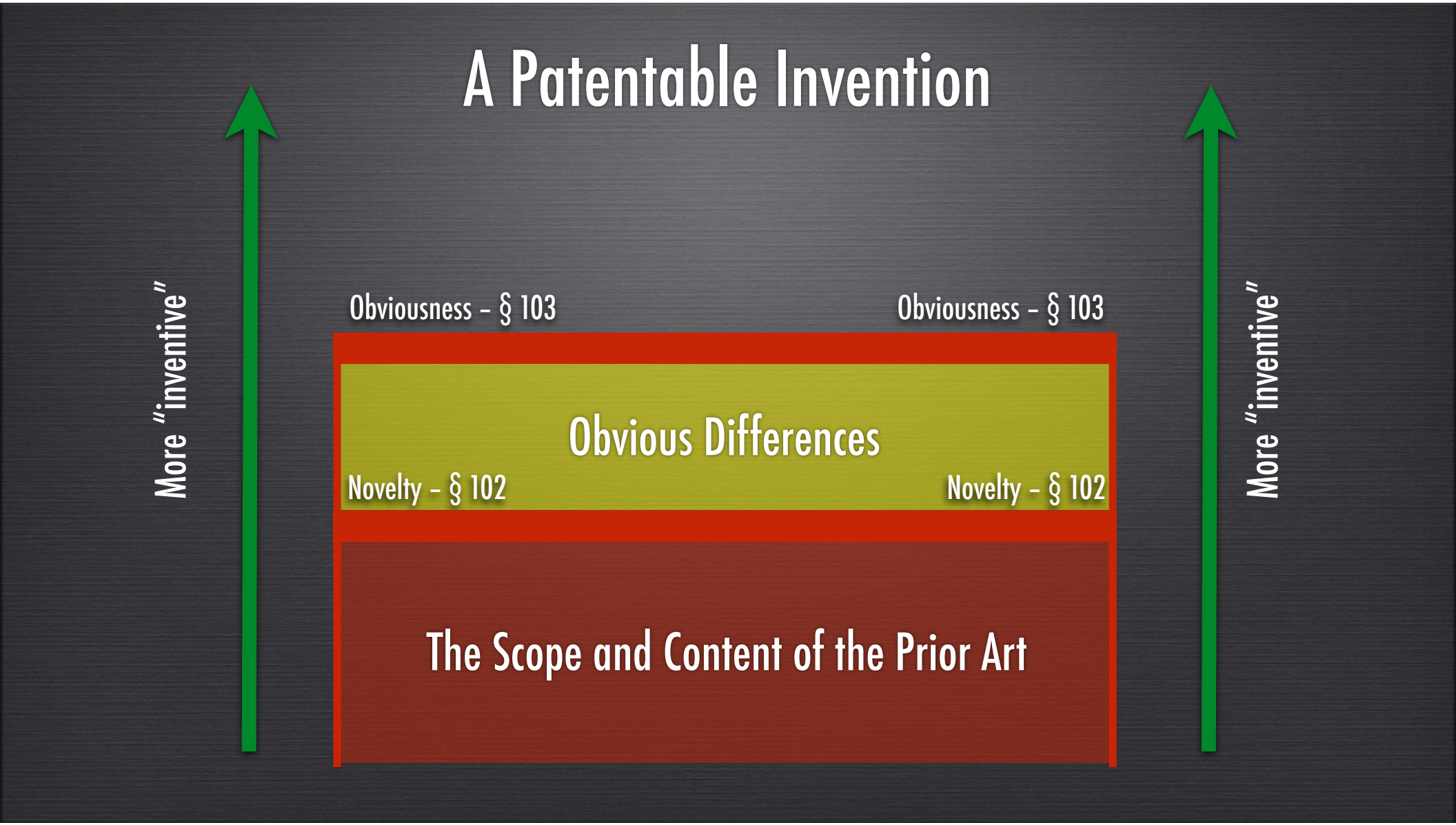
Witnesses:

Inventor:

- Prior art: metallic doorknobs with particular hole
- Invention: clay or porcelain doorknob, same hole
- Court: no patent; a patent requires "more ingenuity and skill" than that of a "simple mechanic"
  - A dissent: test is "subject to great looseness or uncertainty in practice"

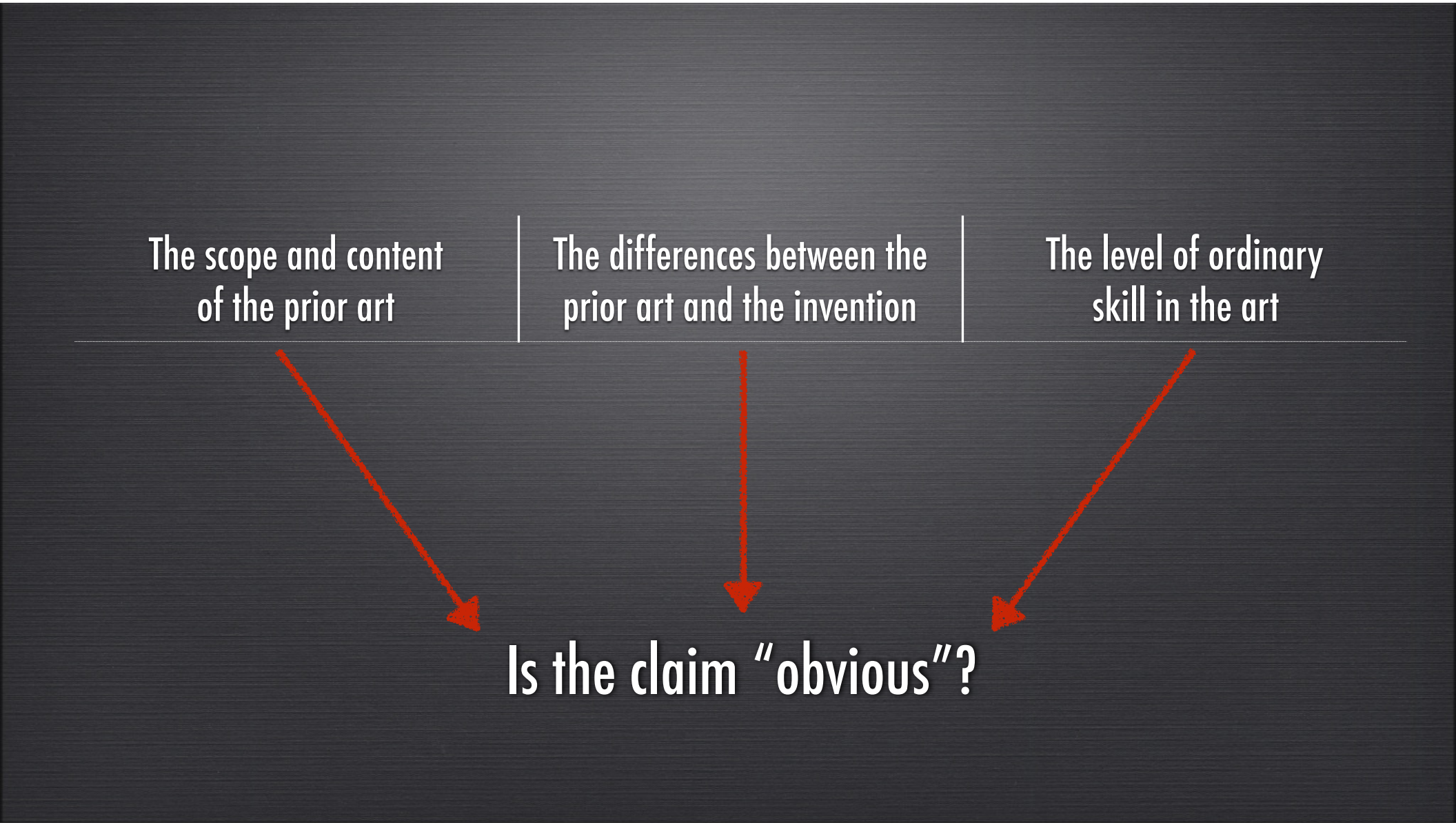
§103. Conditions for patentability; non-obvious subject matter

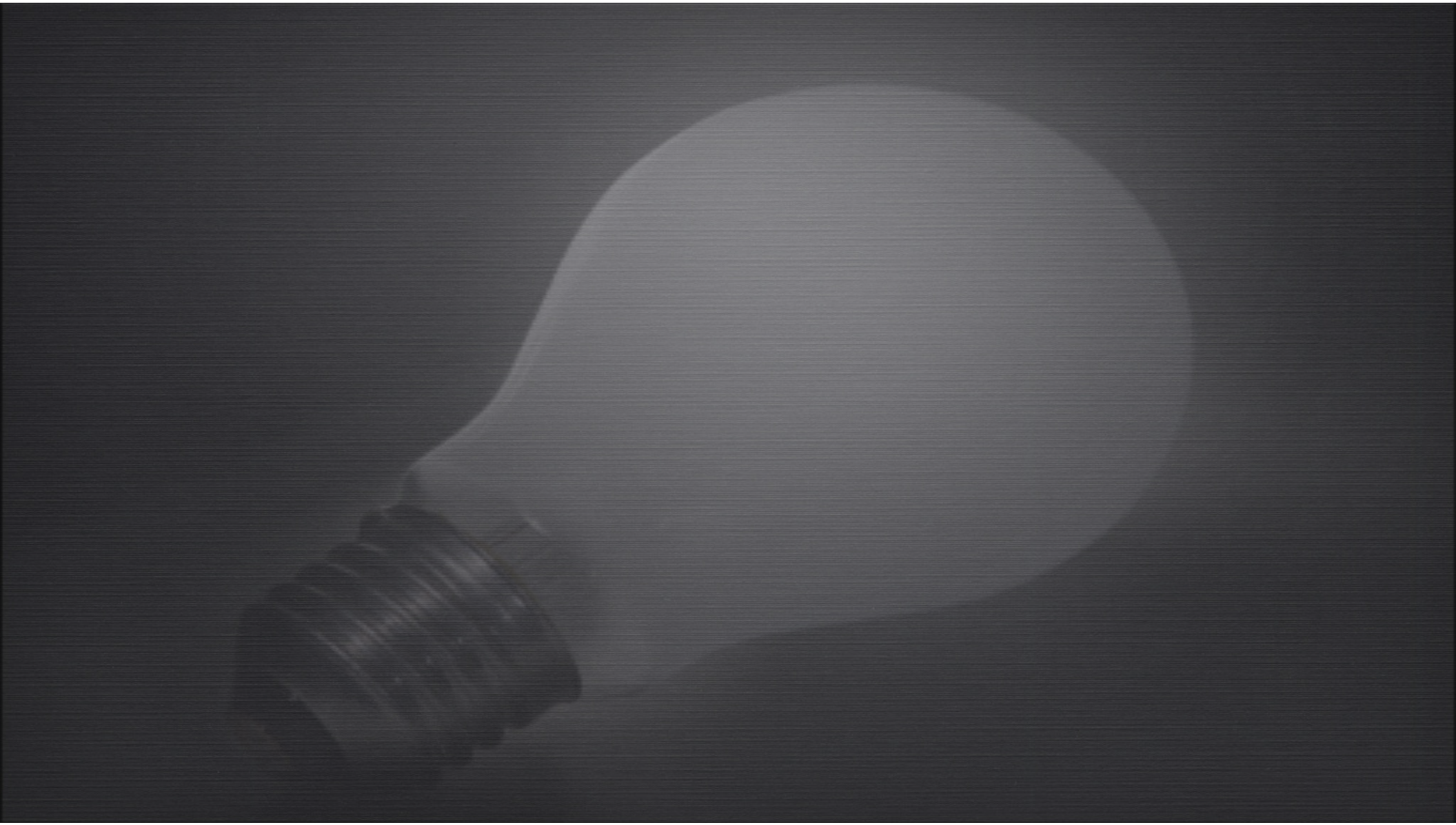
A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.


A Patentable Invention
More "inventive"
Obviousness – § 103
Obvious Differences
Novelty – § 102
The Scope and Content of the Prior Art
Obviousness – § 103
Novelty – § 102
More "inventive"

The Three Inquiries: Graham v John Deere (1966)

The scope and content of the prior art	The differences between the prior art and the invention	The level of ordinary skill in the art
Prior art is defined by § 102 Prior art may be combined if analogous to the field or the problem A PHOSITA's common sense and common knowledge may be used. A very broad sweep of prior art.	A fact question (for the jury)	Higher skill = more obvious!


The scope and content of the prior art
The differences between the prior art and the invention
The level of ordinary skill in the art
Is the claim "obvious"?



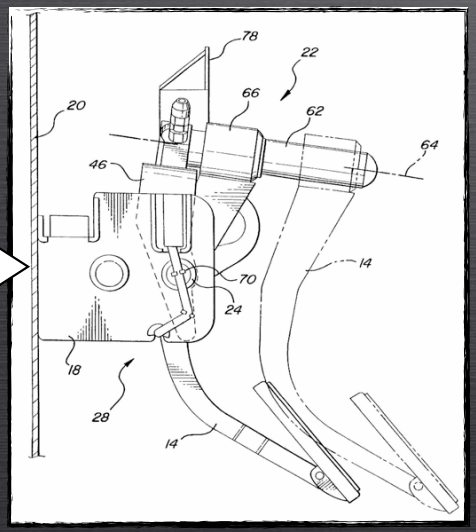
What is "Obvious"?

The ultimate conclusion is for the judge (not the jury!).

Mechanical Pedal Systems

+

Electronic Sensors



KSR v. Teleflex (2007)

An invention solving a known problem with an obvious solution is obvious.

A combination of prior art that yields predictable results is obvious.

"An expansive and flexible approach."

The Key Challenge in Obviousness

Hindsight Bias!

A broad definition of prior art + an expansive and flexible approach to the analysis = potential for hindsight bias.

Every patent provides the blueprint for its own destruction!

How to Combat Hindsight Bias

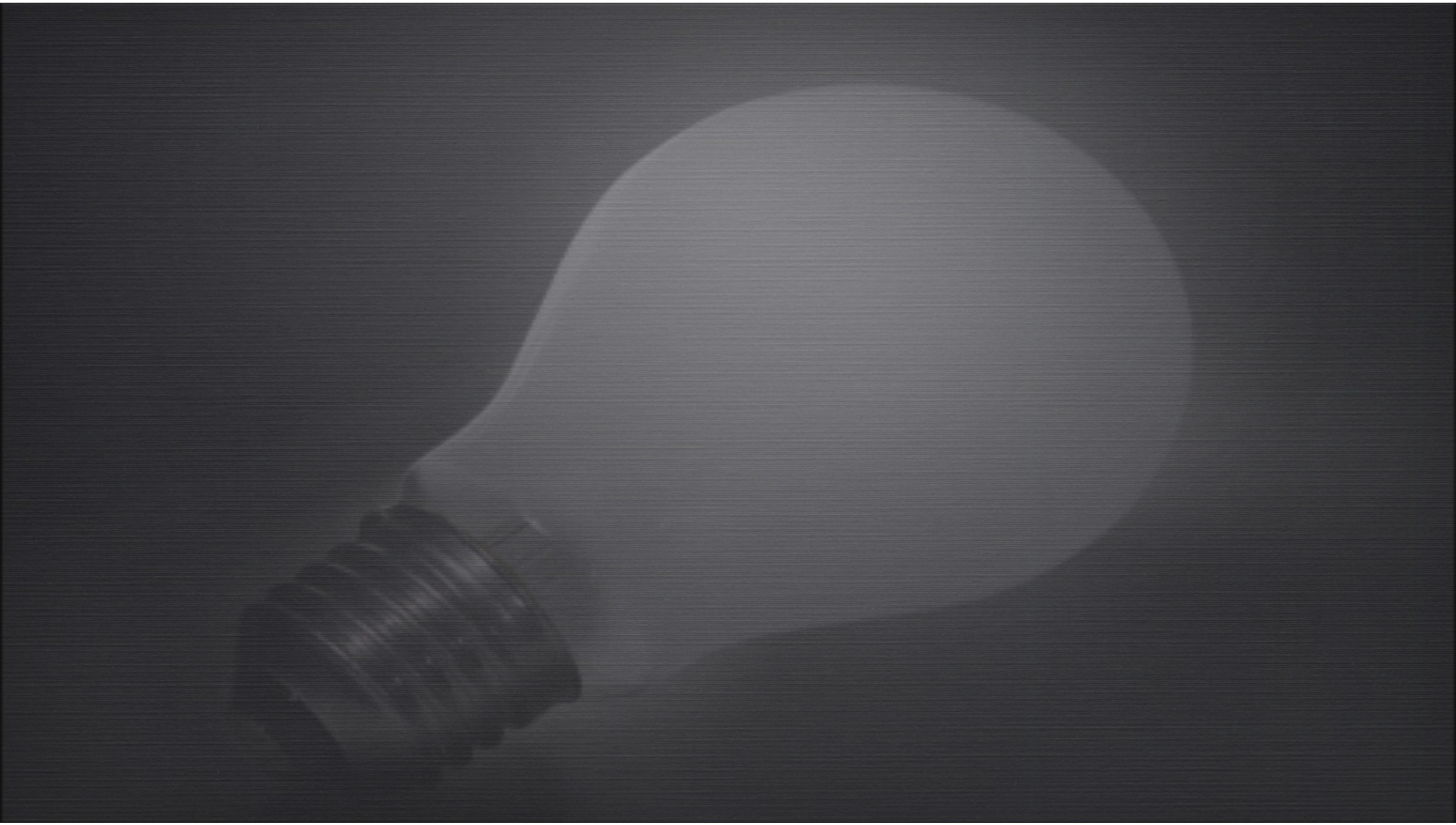
Limit the combination of prior art

{ Strict limits rejected in KSR }

Use “Secondary Considerations”, such as financial success of the invention, praise for the invention, etc.

{ These may be unreliable or not relevant to technical merit }

Non-obviousness remains the most important limit on patentability, and the most difficult to apply consistently.



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