

# **KSR INTERNATIONAL CO. v. TELEFLEX INC.: Analysis and Potential Impact for Patentees**

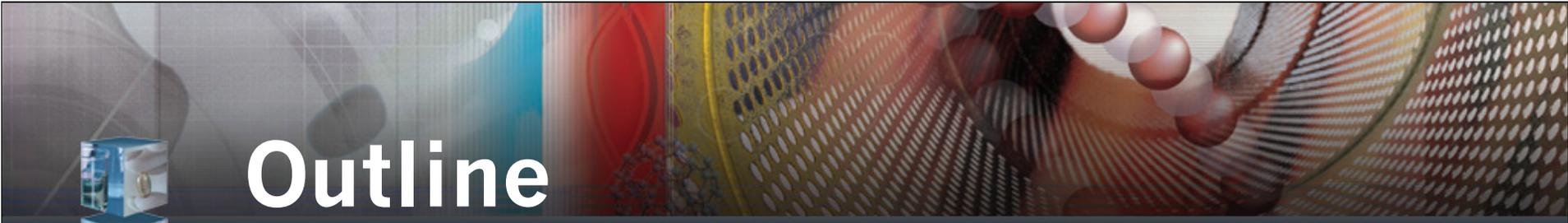
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# Outline

- U.S.C. § 103
- Graham v. John Deere
- The TSM Test
- Trial Court Ruling
- Federal Circuit and the TSM Test
- The Supreme Court Weighs In
- Key Quotes
- A Return to Graham
- Possible Impact



# 35 U.S.C. § 103

- A patent may not be obtained... If the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made. . . .



# Graham v. John Deere

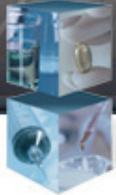
- “Under § 103:
- The scope and content of the prior art are to be determined
- **Differences between the prior art and the claims** at issue are to be ascertained; and
- The level of **ordinary skill in the pertinent art** are resolved. Against this background the obviousness or nonobviousness of the subject matter is determined
- Such **secondary considerations** as **commercial success**, **long felt but unsolved needs**, **failure of others**, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.”



# The TSM Test

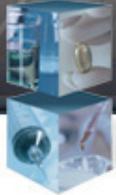
- Teaching, Suggestion, Motivation test:
  - Claim is obvious only if the prior art, the problem's nature, or the knowledge of a person having ordinary skill in the art reveals some motivation or suggestion to combine the prior art teachings. See, e.g., *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323-1324 (CA Fed. 1999)

# KSR v. Teleflex Inc. Trial Court Ruling



- Teleflex sued KSR for infringement of U.S. Patent No. 6,237,565 to Engelgau (“Adjustable Pedal Assembly With Electronic Throttle Control”)
- Basic idea: adjustable pedal with electronic sensor for transmitting pedal’s position to vehicle computer; sensor mounted to fixed support so that pedal can be adjusted without moving the sensor

# Trial Court Ruling



## ■ Asserted Claim 4 of Engelgau:

4. A vehicle control pedal apparatus (12) comprising:

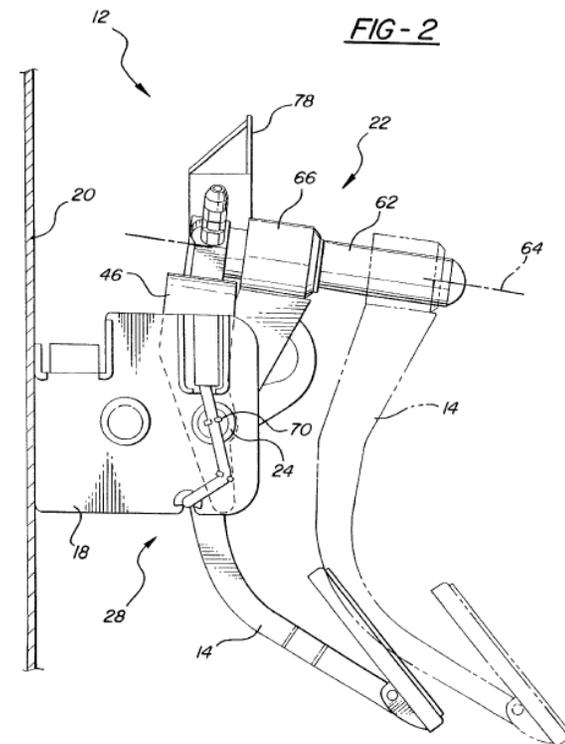
a support (18) adapted to be mounted to a vehicle structure (20);

**an adjustable pedal assembly (22)** having a pedal arm (14) moveable in *force* and aft directions with respect to said support (18);

a pivot (24) for pivotally supporting said adjustable pedal assembly (22) with respect to said support (18) and defining a pivot axis (26); and

**an electronic control (28)** attached to said support (18) for controlling a vehicle system;

said apparatus (12) characterized by said electronic control (28) being responsive to said pivot (24) for providing a signal (32) that corresponds to pedal arm position as said pedal arm (14) pivots about said pivot axis (26) between rest and applied positions wherein the position of said pivot (24) remains constant while said pedal arm (14) moves in fore and aft directions with respect to said pivot (24).



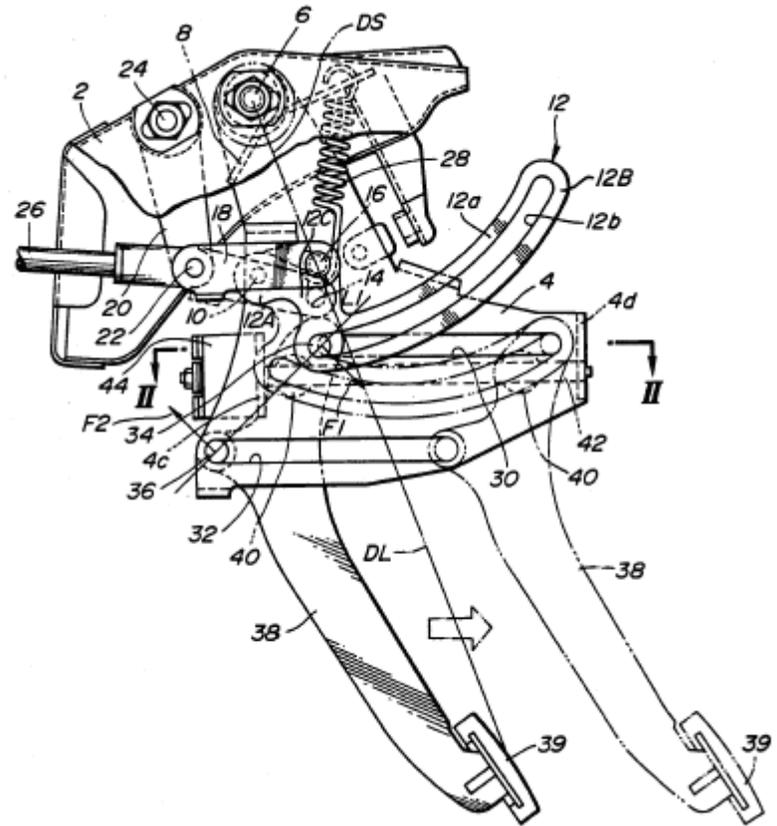


# Trial Court Ruling

- Trial court granted KSR's S/J motion of invalidity under § 103
  - Applying *Graham*, court found “little difference” between art and claim
  - Also held that KSR had satisfied the TSM test
    - State of industry would have led to combination of sensors and adjustable pedals
    - Rixon provided basis for developments
    - Smith taught a solution to wire chafing problems of Rixon
    - Asano (adjustable pedal with fixed pivot point) could therefore be combined with other references

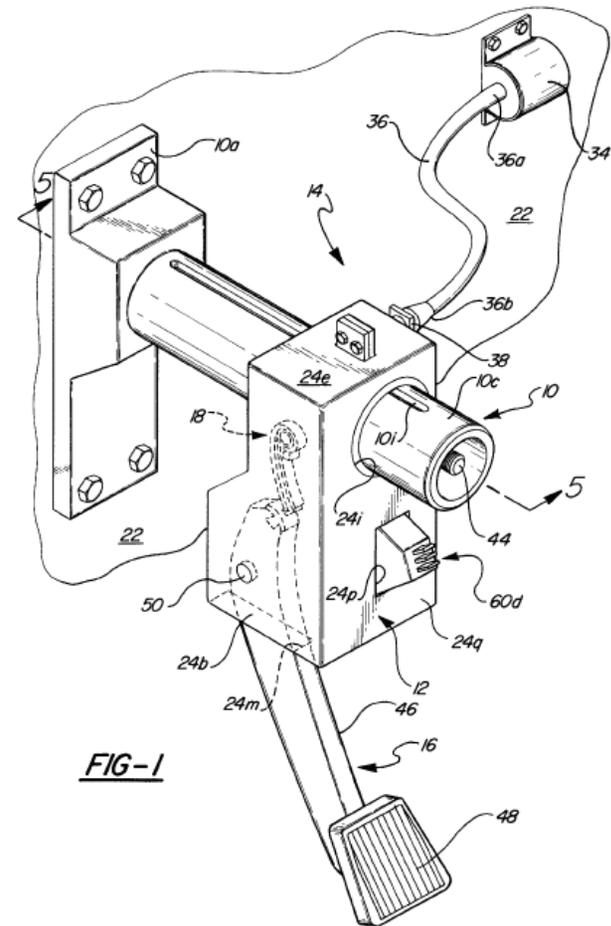
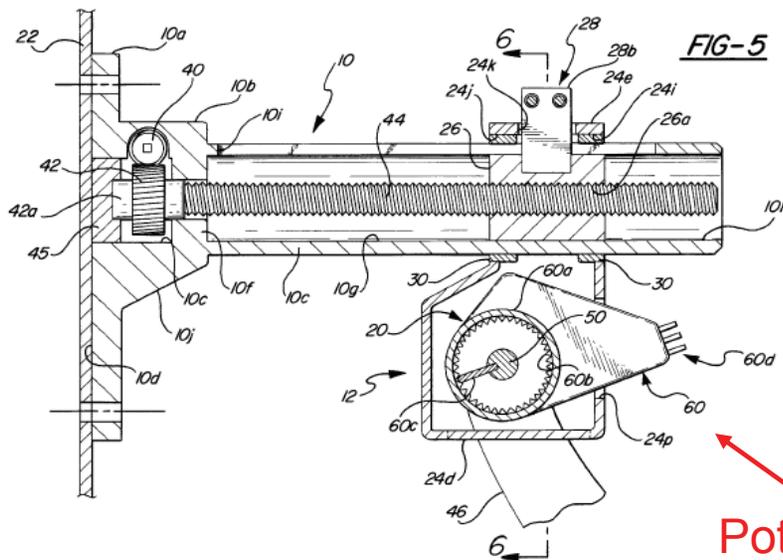
# Trial Court Ruling

- Asano (U.S. Patent No. 5,010,782) discloses all structural limitations of adjustable pedal **except** for electronic control for engine throttle



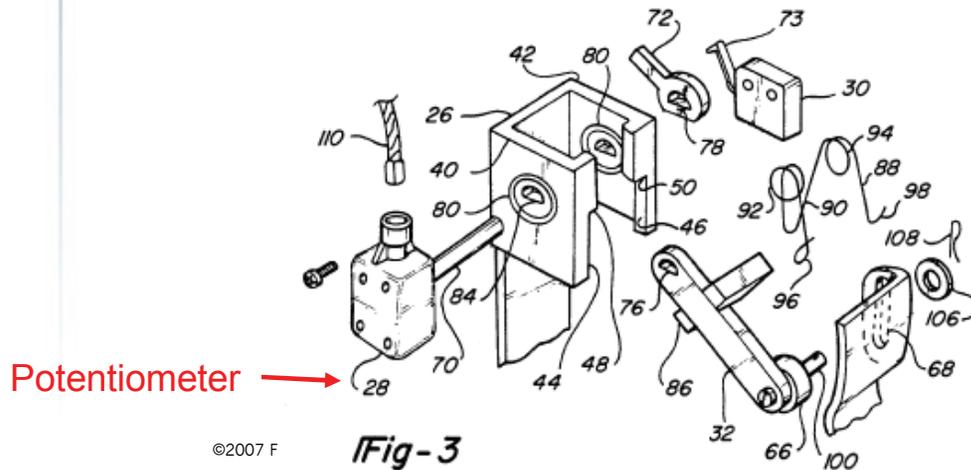
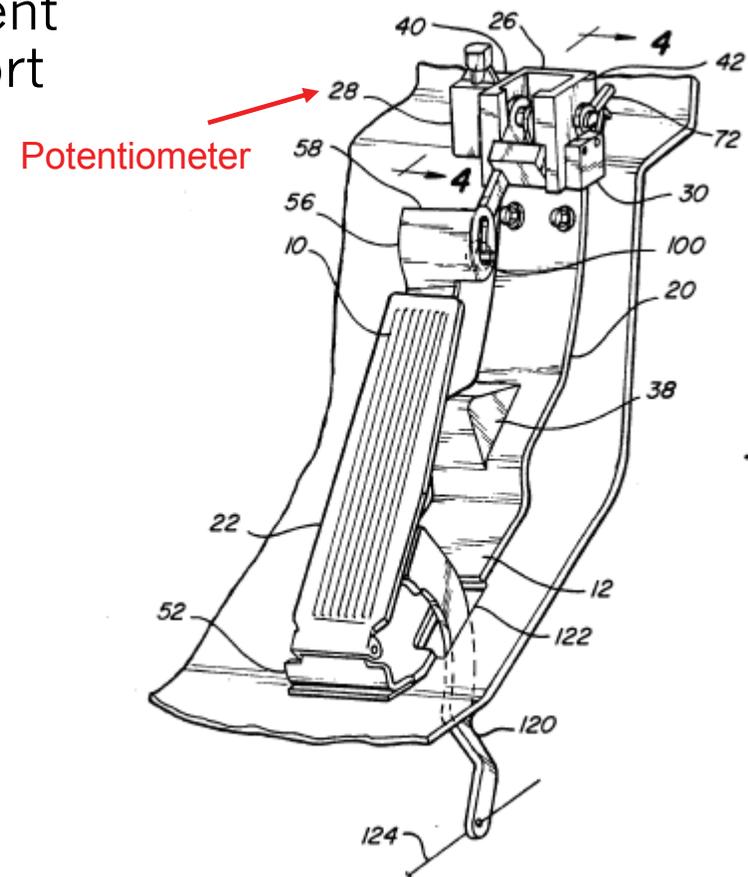
# Trial Court Ruling

- Rixon (U.S. Patent No. 5,819,593) disclosed adjustable pedal with position sensor
- Too complex and suffers from “wire chafing” when adjusting pedal



# Trial Court Ruling

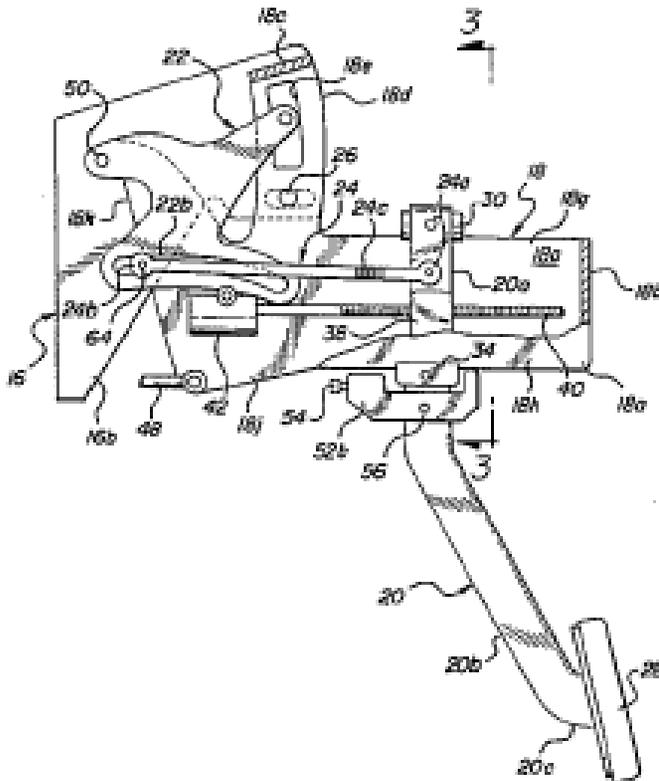
- Smith (U.S. Patent No. 5,063,811) disclosed attachment of electronic control to a support bracket
- Not an adjustable pedal
- “[W]iring to the electrical components must be secure from the possibility of chafing which will eventually result in electrical failure.”



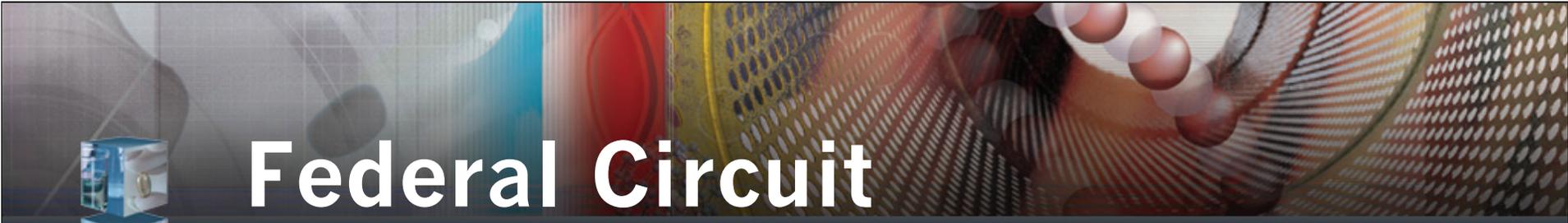
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**Fig-3**

# Trial Court Ruling

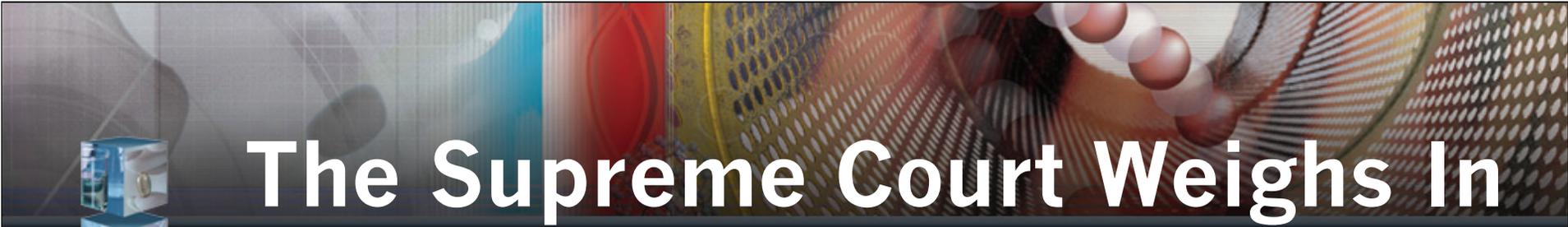


- Redding (U.S. Patent No. 5,460,061) cited by PTO against broader claims in combination with Smith (Redding taught adjustable pedal and Smith explained how to mount a sensor on a support structure)
- Patentee overcame rejection by adding limitation of fixed pivot point during adjustment
- Asano (which does include a fixed pivot) was not before the PTO; court said that if Asano was before the PTO, Claim 4 would have been rejected over Smith and Asano combination



# Federal Circuit

- Federal Circuit reversed (in an UNPUBLISHED, NON-PRECEDENTIAL decision)
  - “When obviousness is based on the teachings of multiple prior art references, the movant must also establish some “suggestion, teaching, or motivation” that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed.”
  - Noted that trial court failed to establish motivation – None of the references directed to same problem as Teleflex patent
    - Asano directed at solving “constant ratio problem”
    - Rixon “suffers from the problem” solved by Teleflex
    - Smith did not relate to adjustable pedals and although it solved wire chafing problem of Rixon, that wasn’t the same problem the Teleflex patent was designed to solve



# The Supreme Court Weighs In



- Holding:

“The Federal Circuit addressed the obviousness question in a **narrow, rigid** manner that is inconsistent with § 103 and this Court’s precedents. KSR provided convincing evidence that . . . The Engelgau patent’s claim 4 is obvious.”

- “[O]ur cases have set forth an expansive and flexible approach inconsistent with the way the Court of Appeals applied in its TSM test here.”



# The Supreme Court Weighs In

- Applying this to the current case, the Court agreed with the trial court: “[W]e see little difference between the teachings of Asano and Smith and the adjustable electronic pedal disclosed in claim 4 of the Engelgau patent.”



# KSR Quotes

- **Predictability**: “A court must ask whether the improvement is more than the **predictable** use of prior art elements according to their established functions.”
- **Rigid Application of TSM Test**: “There is no necessary inconsistency between the idea underlying the **TSM** test and the *Graham* analysis. But when a court transforms the general principle into a **rigid** rule that limits the obviousness inquiry, as the Court of Appeals did here, it errs.”



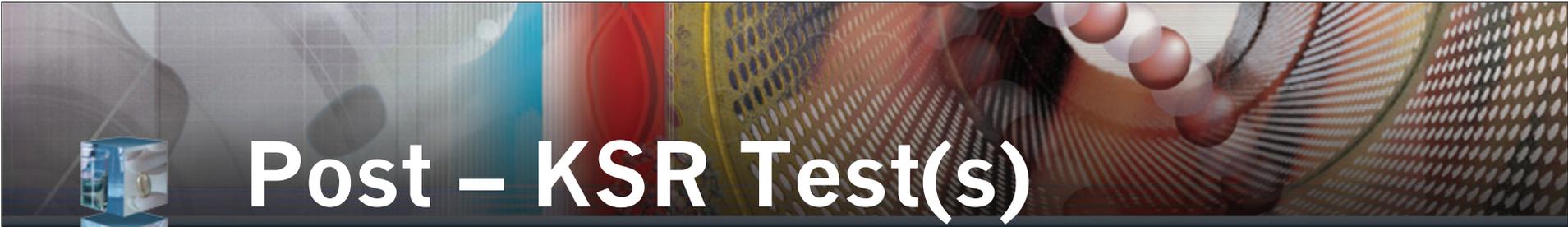
# KSR Quotes

- **Common Sense**: “Rigid preventative rules that deny fact finders recourse to **common sense**...are neither necessary under our case law nor consistent with it.”
- **Obvious Solution**: “One of the ways in which a patent’s subject matter can be proved **obvious** is by noting that there existed at the time of invention a known problem for which there was an **obvious solution** encompassed by the patent’s claims.”
  - Stated another way: an invention is obvious if the solution was obvious



# KSR Quotes

- **Ordinary Creativity**: “The idea that a designer... would ignore Asano because Asano was designed to solve the constant ratio problem makes little sense. A person of ordinary skill is also a person of ordinary creativity, not an automaton.”
- **Design Need / Market Pressure**: “When there is a design need or market pressure to solve a problem and there are a **finite number of identified, predictable solutions**, a person of ordinary skill has good reasons to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.”



# Post – KSR Test(s)

- **Graham v. John Deere Test:**
  - Scope and content of the prior art
  - Differences between the prior art and the claimed invention
  - Level of ordinary skill
  - Secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc.
- **TSM** (Teaching, Suggestion, Motivation) – Applicable as one test under a more flexible review
- **Design Need / Market Pressure**
- **Known Problem – Predictable Solution**
- **Person of Ordinary Creativity**
- **Ordinary Common Sense**



# Cases Post - KSR

- Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. decided May 9, 2007
  - Defendant argued asserted claim was obvious and that “particularized and specific motivations to combine need not be found in the prior art references themselves in the context of an improvement that arises from a desire to improve a known device.”
  - Fed Cir agreed – “An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.”



# Lessons for Medical Devices

- Application Preparation
  - Unpredictable Results: More specific statements in specification that describe “unpredictability” of combinations
  - Secondary Considerations under the Graham test if available may support patentability
  - Problem – Solution Discussion may be used against the applicant
- Prosecution
  - More challenging responses
  - Declarations to rebut prima facie case
  - Possible Increase in appeals



# Lessons for Biotechnology Cases

- Concern that KSR opinion resurrects “obvious to try” standard
- Application Preparation:
  - Providing support for unexpected results
  - Demonstrating unpredictability of outcome
  - Where applicable demonstrate that there were too many possible avenues to pursue to render the particular claimed solution predictable
- Prosecution
  - Greater reliance on declarations to provide evidence of unpredictable nature of invention

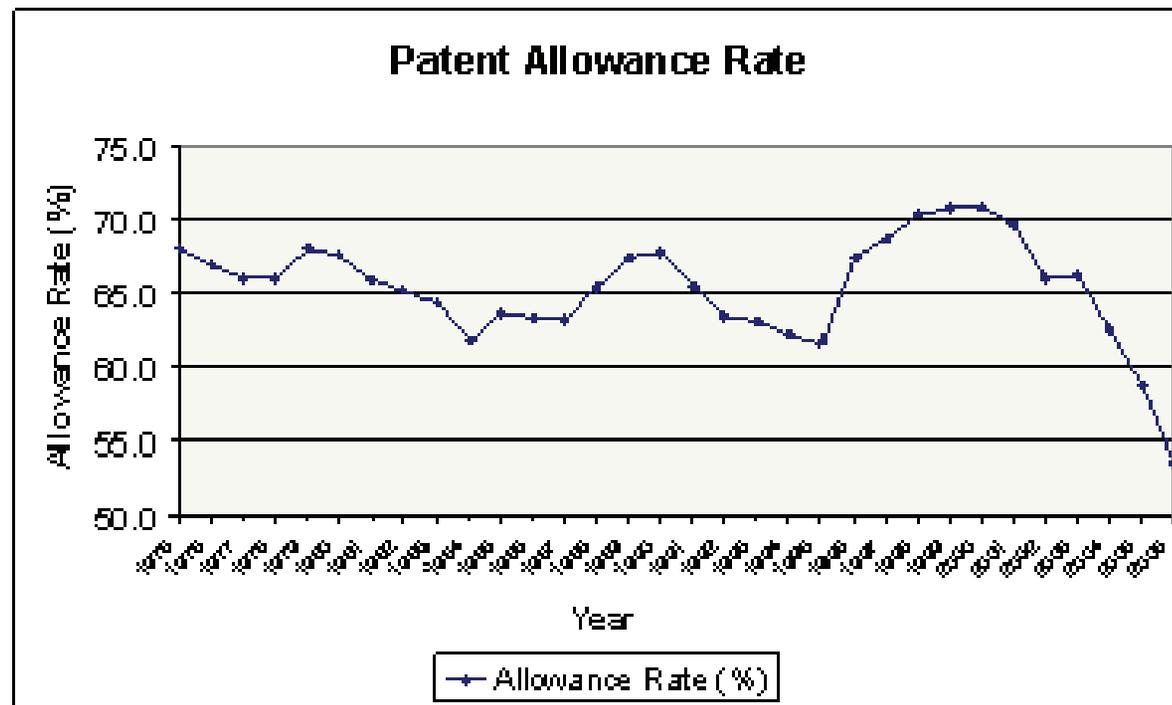


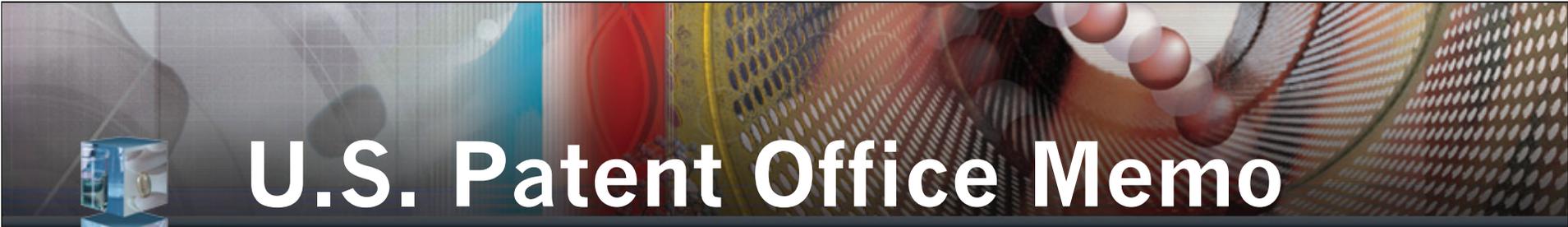
# Potential Impact

- Value of Existing Patents
  - Licensing
  - Litigation
- Standard for Acquiring Patents

# U.S. Patent Allowance Rate

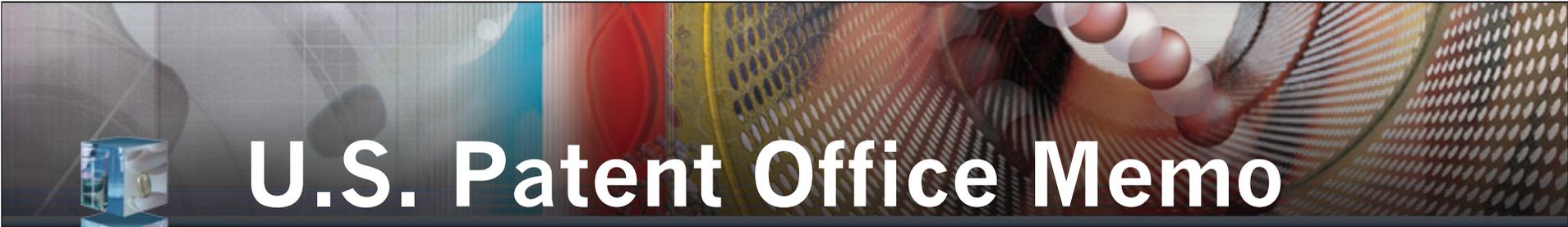
- US Patent Office may have already implemented a tighter standard:





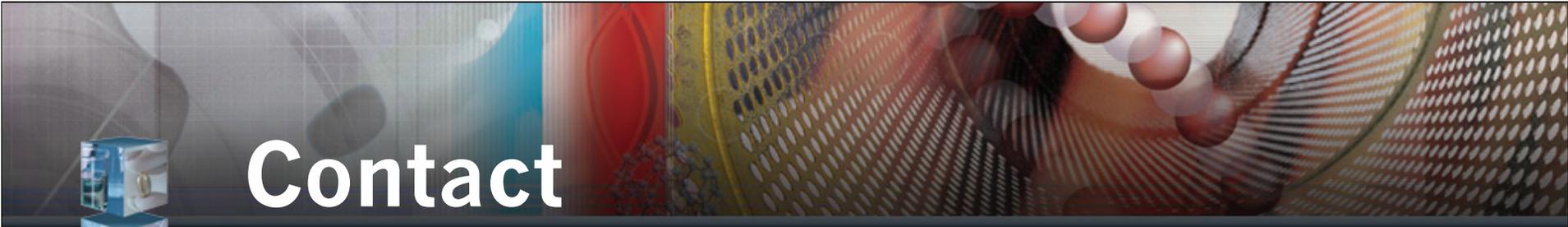
# U.S. Patent Office Memo

- USPTO Internal Memo re KSR:
  - Court reaffirmed Graham factors
  - Court did not totally reject the use of “Teaching, suggestion, or motivation” as a factor
  - Court rejected a rigid application of the TSM test before holding the claimed subject matter to be obvious
  - Court noted that the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit

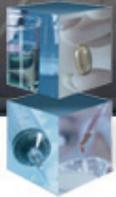


# U.S. Patent Office Memo

- USPTO Internal Memo re KSR:
  - Therefore, in formulating a rejection under 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined prior art elements in the manner claimed



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