

Obviousness in a Post-KSR World

A Review of Post-KSR Federal Circuit
Decisions.

Athar A. Khan
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Agenda

▶ KSR

▶ Federal Circuit Cases

- Leapfrog Enterprises, Inc. v. Fisher-Price, Inc. (May 10)
- Takeda Chemical Indus. v. Alphapharm Pty., Ltd., (June 28)
- Pharmastem Therapeutics, Inc. v. Viacell, Inc. (July 9)
- In re Icon Health & Fitness, Inc. (August 1)

▶ Review

▶ Questions

Information about KSR



KSR Opinion
Federal Circuit
BPAI
USPTO
District Court
Appeals
Patent
Law
Practice

KSR: Issue & Holding

- ▶ Question: Pedal + Sensor = Obvious?
- ▶ District Court: Obvious
- ▶ CAFC: Applied TSM (Non-Obvious)
- ▶ Supreme Court Holds:
 - “[T]he Court of Appeals analyzed the issue [of obviousness] in a narrow, rigid manner **inconsistent** with §103 and our precedents.”
 - “**Contrary** to §103 and our precedents.”
 - Reversed

What did the Supreme Court Say?

- ▶ CAFC Flaw: Narrow conception of Obviousness
 - Too Rigid in Application of TSM
 - Unable to find Motivation unless solving “precise problem”

- ▶ Instead:
 - TSM: Helpful but not Required
 - Broader interpretation of motivation
 - ▶ Need not seek out precise teachings
 - ▶ Can take account of inferences and creative steps

KSR: Categorized Highlights (TJM)

▶ Guidance

- 1) Cautions against hindsight bias.
 - ▶ Common sense OK
- 2) Explains TSM
 - ▶ “Useful”
 - ▶ Rejects “Rigid” and “Formalistic”

▶ Preserved

- 3) “Unusable Result” (Waived on Appeal)
- 4) “Teaching Away”
- 5) “Secondary Considerations”

▶ Elevated consideration of Graham Factors

Lets Talk Numbers

- ▶ Narrow: 4
- ▶ Rigid: 6
- ▶ Expansive: 1
- ▶ Flexible: 3
- ▶ Common Sense: 5
- ▶ Interpreted (Conveniently):
 - Don't be Narrow or Rigid
 - Be Expansive and Flexible
 - Use Common Sense.
 - **What is Common Sense?**

KSR: Proper Obviousness Question

- ▶ “The Court of Appeals considered the issue too narrowly by, in effect, asking whether a pedal designer **writing on a blank slate** would have chosen both Asano and a modular sensor similar to the ones used in the Chevrolet truckline and disclosed in the ‘068 patent.”
- ▶ “The proper question to have asked was whether a pedal designer of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have **seen a benefit to upgrading** Asano with a sensor.”

KSR: Proper Obviousness Question

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KSR: Proper Obviousness Question

- ▶ The proper question to have asked was whether a [**person**] of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to upgrading [**the prior art**] with a [**known component.**]

KSR: Proper Obviousness Question

- ▶ The proper question to have asked was whether:
 - 1) a [**person**] of ordinary skill,
 - 2) facing the wide range of needs
 - 3) created by developments in the field of endeavor,
 - 4) would have seen a benefit to
 - 5) upgrading [**the prior art**] with
 - 6) a [**known component.**]
- ▶ “A person of ordinary skill is also a person of ordinary creativity, not an automaton.”

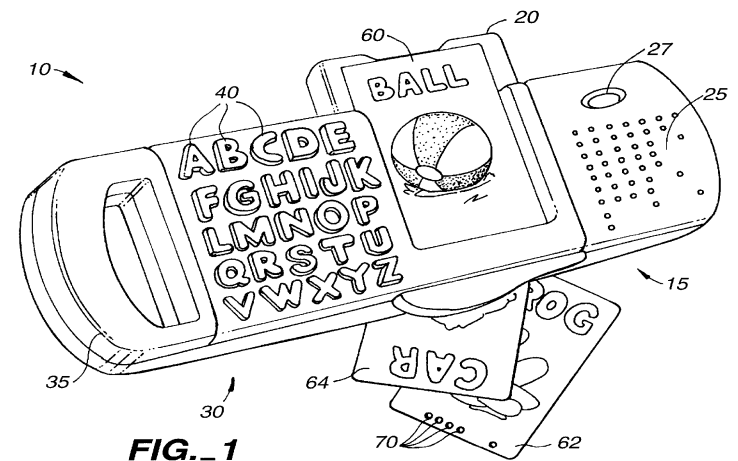
What does this language apply to?

- ▶ Upgrade (Dictionary Meaning)
 - Raise quality
 - Extend the usefulness of (as a device)
 - Intransitive verb: Improve/replace especially software or a device for increased usefulness

- ▶ Applications?
 - Mechanical → Electrical?
 - Analog → Digital?
 - What else? Chemical? Biotech? Business Methods?

Leapfrog v. Fisher-Price / Mattel

- ▶ District Court (2003)
- ▶ Standard of Review: Clear Error
- ▶ Claim 25 of Leapfrog's '861 Patent
- ▶ An interactive learning device, comprising:
 - 1) Housing (with switches)
 - 2) Sound Production Device
 - 3) Depiction of letters
 - 4) A Reader *

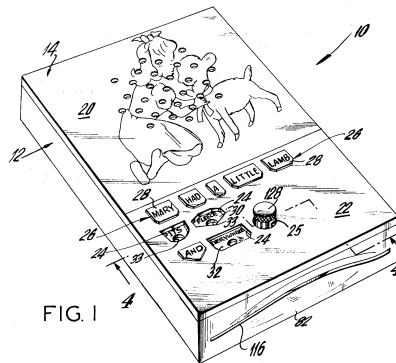


District Court: Claim 25 Invalid (Obvious)

- ▶ Combination: Bevan, TI SSR, and FP Expert.
- ▶ Bevan
 - Phonograph Record (Voice Storage)
 - Puzzles (Letters) → Associated with Sounds
 - Same method (?) of operation as Leapfrog
- ▶ TI SSR
 - Housing (Processor, Memory, Speaker)
 - Pressing Letters → Sounds
 - “[P]rovides a roadmap”
- ▶ Missing: Reader

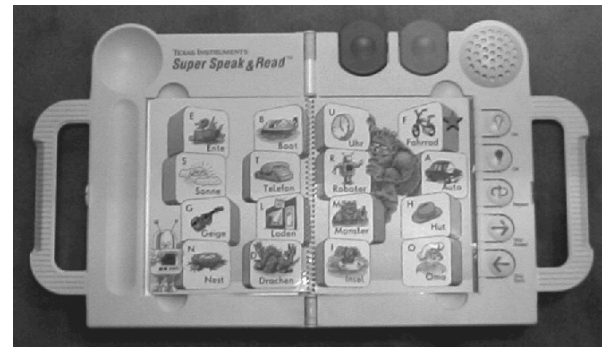
Leapfrog

1)



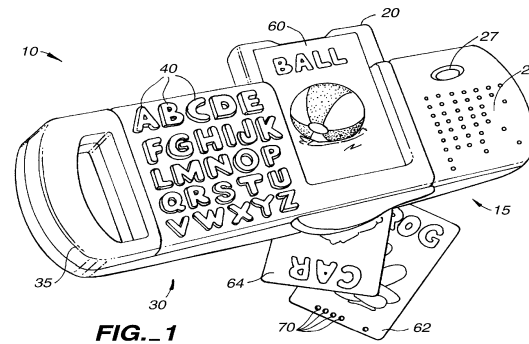
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2)



+ 3) Expert Opinion

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Reasoning for Obviousness

- ▶ Combination: “Adaptation of an old idea or invention (Bevan) using new technology that is commonly available and understood in the art (the SSR).”
- ▶ Reader?
 - Lacks “Reader” of Claim 25.
 - “[R]eaders were well-known in the art”
 - No Evidence Presented:
 - ▶ Uniquely Challenging or Difficult.
 - ▶ Inclusion represented unobvious step.
- ▶ Secondary Considerations Not Strong Enough.

KSR' s Proper Question

- ▶ 1) a **[person]** of ordinary skill,
 - Standard inquiry. Expert Opinion.
- ▶ 2) facing the wide range of needs
 - “[S]maller, lighter, or less expensive”
- ▶ 3) created by developments in the field of endeavor,
 - “[M]odern electronics ... common by the time”
- ▶ 4) would have seen a benefit to
 - “[C]ommonly understood benefits ... decreased size, increased reliability, simplified operation, reduced cost.”
- ▶ 5) upgrading **[the prior art]** with
 - “[U]pdate it using modern electronic components”
- ▶ 6) a **[known component.]**
 - “[R]eaders were well-known”

Leapfrog (Proper Question?)

- ▶ “Accommodating a prior art mechanical device that accomplishes that goal to modern electronics would have been reasonably obvious to one of ordinary skill in designing children’s learning devices. Applying modern electronics to older mechanical devices has been commonplace in recent years.”

Takeda v. AlphaPharm

- ▶ Diabetes Drug (“TZDs”)
- ▶ District Court (2006): Non-Obvious under TSM
 - No motivation to select Lead Compound
 - Prior Art taught away
 - Furthermore: Unexpected Results (nontoxicity)
- ▶ CAFC
 - Reviewed under Clearly Erroneous
 - Affirmed District Court’s holding.

Takeda v. AlphaPharm

- ▶ On Appeal: Graham factors still control
 - 1) Differences between Prior Art and Claims
 - ▶ Selection of lead compound
 - Reason to modify compound remains necessary
 - AP' s argument relied on selecting compound b.
 - District Court: POSITA would not have selected compound b.
 - 200 Mil. TZDs → 54 Mentioned → 9 Tested
 - Article: “b” increased body weight. Negated (taught away)
 - Not “obvious to try” under KSR.
 - ▶ Choice of Claimed Compounds
 - Nothing suggested making specific molecular modifications
 - No reasonable expectation of success.
 - 2) Scope & Content of Prior Art
 - ▶ Prosecution history was considered.

Pharmastem v. Viacell.

- ▶ Stem cells in cord blood.
- ▶ District Court (2004): Non-Obvious
 - Problems with transplant tissues
 - “[T]remendous skepticism ... regarding the use of cord blood as a transplant tissue.”
 - Jury could have found claims obvious BUT
 - Sufficient Evidence: Would not be successful.
- ▶ CAFC: Obvious
 - Reviewed De Novo.
 - Reverses Jury Verdict as Matter of Law

Pharmastem v. Viacell

▶ PharmaStem's Expert:

- No prior art showed blood contained stem cells
- Stem Cells not proved until Patentee's Experiments.

▶ CAFC: Not Patentable

- “[P]roved conclusively what was strongly suspected”
- “[S]ignificantly advanced the state of the science”
- “[Eliminated] any doubt as to the presence of stem cells in cord blood,
- Experiments and Conclusions: Not inventive
- Routine research methods proved what was already believed.
- “[V]aluable contribution, but ... not ... a patentable invention.”

Reasoning

- ▶ Prior art suggested cryopreserving
- ▶ Array of possible choices
- ▶ Specification → Each step spelled out in prior art
- ▶ Holding: Not-Patentable (Obvious)

Icon Health

- ▶ BPAI (May, 2006) → CAFC (August, 2007)
- ▶ Claim 1 of '624 Patent
- ▶ Standard of Review: De Novo
- ▶ Treadmill
 - Support structure
 - Tread base
 - Handle
 - Roller
 - Gas Spring *

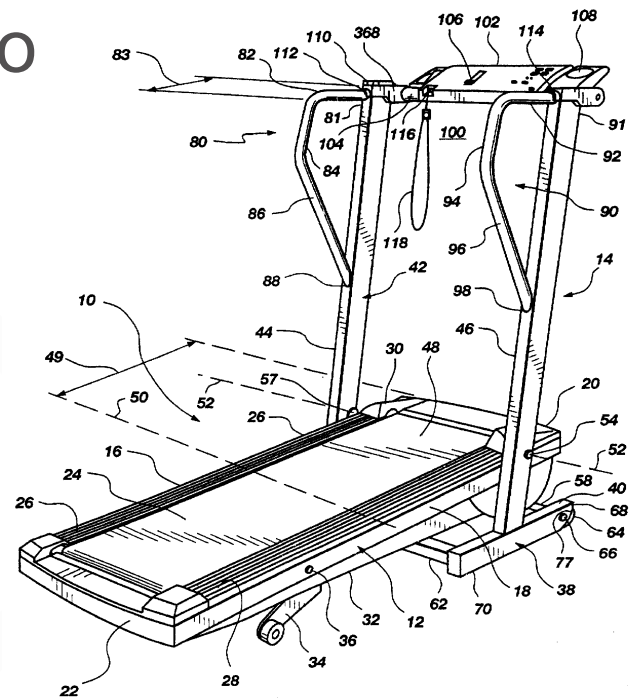


Fig. 1

Icon Health: Treadmill

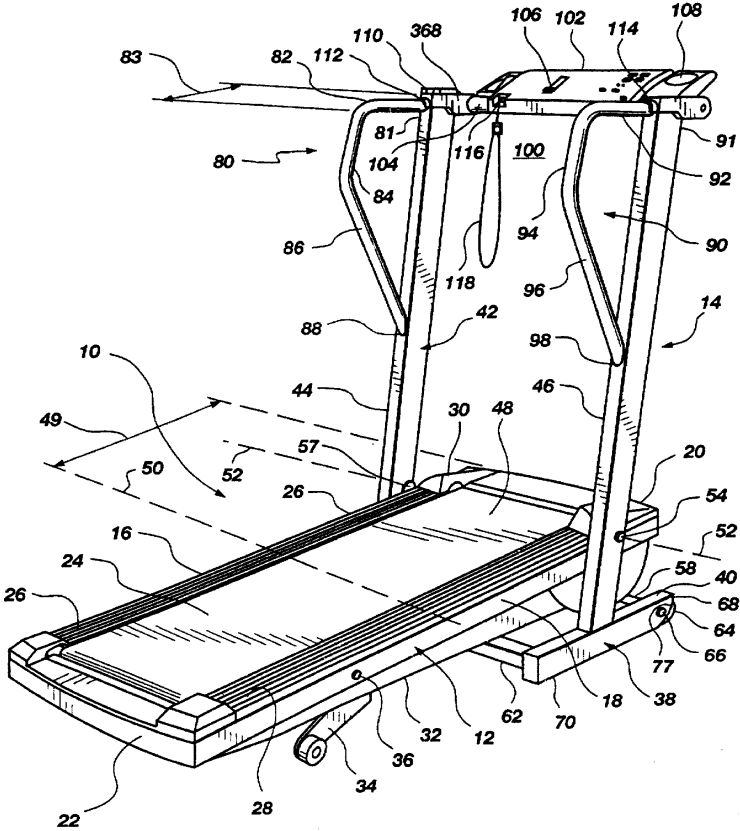


Fig. 1

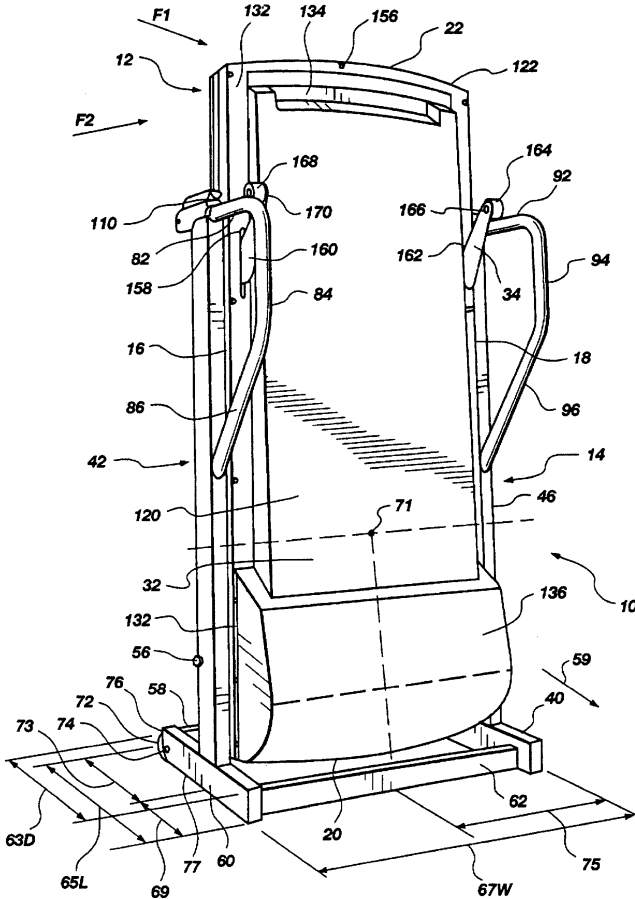
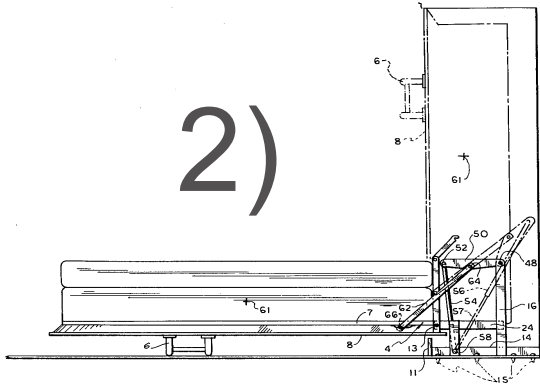


Fig. 2

Icon Health

1) Advertisement + 2)



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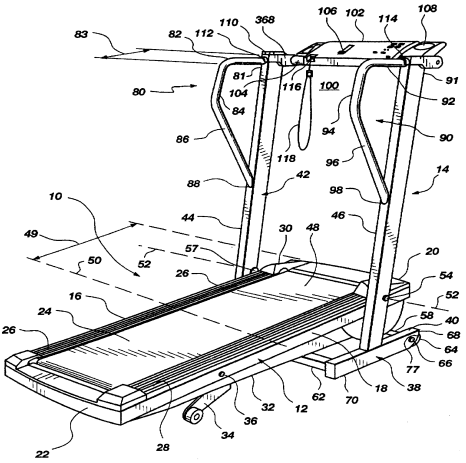


Fig. 1

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Icon Health: Expansive Language

- ▶ References: “Reasonably Pertinent”
 - Both address need to stably retain folding mechanism
 - KSR: “Familiar items may have obvious uses beyond their primary purposes”
 - ▶ Computer Hinge & Latch → Housings, Hinges, Latches & Springs.
- ▶ Discussion of a lifting force paralleled Teague’s mechanism
 - Center of Gravity
 - Two rest positions

Icon's Arguments re: Prior Art

- ▶ 1) Teaching away
 - Prior Art directs not to use single-action springs
 - Rejected: Just talks about decreasing opening force
- ▶ 2) Impossibility
 - Prior art's dual-action springs render inoperable
 - Rejected: One would modify device borrowed from Prior Art.
- ▶ Both rejected based on broad claim language.

Comparing Takeda & PharmaStem

▶ Takeda

- Clearly Erroneous (Broad Latitude)
- Affirmed Non-Obviousness.

▶ PharmaStem

- De Novo
- Reversed Jury Verdict and found Obviousness.

Standard of Review

- ▶ Question of Law with underlying facts

Comparing Leapfrog & Icon Health

	Person	Needs	Dev. FoE	Benefit	Upgrade	Known Comp.
Leapfrog	X	X	X	X	<u>X</u>	<u>X</u>
Icon Health	<u>X</u>	X	X	X	X	<u>X</u>

Graham & TSM Test

	Graham	TSM Test
LeapFrog	Not Mentioned	Discussed T/M But not TSM Test
Takeda	Scope & Content	Addressed TSM Test Noted TSM & Graham; Important to Identify reason
PharmaStem	Commercial Success	Suggestion was enough But not TSM Test
Icon Health	Scope & Content	Teaching (Away) But not TSM Test

Highlights

Mechanical / Electrical

- ▶ Leapfrog: Mechanical → Electrical Upgrade
- ▶ Icon Health: Reasonable Pertinence
- ▶ KSR: Language will be important

Chemical / Bio-tech

- ▶ Takeda: Clearly Erroneous
- ▶ PharmaStem: De Novo; Jury Evidence.

Factors: Obviousness

- ▶ Small number of possibilities/choices
 - More likely to be obvious (PharmaStem)
- ▶ Expansive Range of Motivation
 - Treadmill → Folding Bed (Icon Health)
- ▶ Predictability
 - Mechanical/Electrical More Likely to Be Obvious
 - Chemical Arts generally less predictable

Factors: Non-Obviousness

- ▶ Large Number of Choices
 - 200+ Million (Takeda)
- ▶ Chemical (Less Predictability)
 - Unexpected results (Takeda)
- ▶ Teaching Away
 - Weight Gain (Takeda)
- ▶ Secondary Considerations
 - E.g. Leapfrog (Were not strong but were considered)

Questions?

