The standard for obviousness under 35 U.S.C. § 103 plays an indispensable role in furthering the constitutional objective of “promot[ing] the Progress of * * * useful Arts by securing for limited Times to * * * Inventors the exclusive Right to their * * * Discoveries.”¹ Yet obviousness is often a difficult inquiry for both the courts and practitioners.

Early U.S. Supreme Court decisions recognized the difficulties in evaluating patentability of combination inventions.² The Court has recognized that Section 103 was enacted “to focus inquiries . . . upon nonobviousness, rather than upon ‘invention,’ as a means of achieving more stability and predictability in determining patentability and validity.”³

In the seminal Graham decision, the Court established a framework for evaluating obviousness under Section 103. In particular, inquiry is made into the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of skill in the art, and so-called “secondary considerations,” such as long-felt but unresolved need, failure of others, and commercial success. These factors are then weighed to determine whether the invention as a whole would have been obvious.⁴

In another case decided at the same time as Graham, United States v. Adams,⁵ a patent for a battery having magnesium and cuprous chloride electrodes was upheld notwithstanding that magnesium and cuprous chloride were individually known battery components. The

1. U.S. Const. Art. 1, § 8, Cl. 8.
2. See, e.g., Great Atl. & Pac. Tea Co. v. Supermarket Equip. Co., 340 U.S. 147, 151 (1950) (“the concept of invention is inherently elusive when applied to combination of old elements.”); McClain v. Ortmayer, 141 U.S. 419, 427 (1891) (“whether the variation relied upon in a particular case is anything more than ordinary mechanical skill is a question which cannot be answered by applying the test of any general definition.”).
4. 383 U.S. at 13–18.
Court rejected the Government’s argument that the claimed electrodes were mere substitutions of preexisting battery designs, and based its decision primarily on unexpected advantages achieved by the claimed combination, the need to ignore certain prior art teachings, and skepticism by experts.

Neither *Graham* nor *Adams* specifically addressed situations when combinations of elements individually found in the prior art are alleged to be obvious and, in turn, whether such obviousness renders a patent invalid. In other words, both provided the basic framework for obviousness determinations, but neither specifically addressed the many facets thereof—one of which involved obviousness determinations when an accused infringer alleges that combinations of elements individually found in the prior art render a patent invalid.

Absent further guidance from the U.S. Supreme Court, the U.S. Court of Appeals for the Federal Circuit developed the “teaching, suggestion, and motivation test” (or TSM test, in common parlance) to address this issue, consistently requiring a showing of a teaching, motivation, or suggestion to combine elements in the prior art.6

Then came *KSR v. Teleflex*,7 and the issue before the Supreme Court was as follows:

> Whether the Federal Circuit has erred in holding that a claimed invention cannot be held ‘obvious’, and thus unpatentable under 35 U.S.C. § 103(a), in the absence of some proven “‘teaching, suggestion, 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.”

As background, Teleflex Inc. and its subsidiary, Technology Holding Company (herein Teleflex) sued KSR International Company

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6. See, e.g., *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988); *In re Dembiczk*, 175 F.3d 994, 999 (Fed. Cir. 1992) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”).

(KSR) for patent infringement. KSR, a Canadian company, manufactures and supplies auto parts, including pedal systems.

The patent at issue, U.S. Patent No. 6,237,565 B1, was titled “Adjustable Pedal Assembly with Electronic Throttle Control.” The patentee was Steven J. Engelgau, and the patent is referred to herein as “the Engelgau patent.” Claim 4 of the Engelgau patent described a mechanism for combining an electronic sensor with an adjustable automobile pedal such that the pedal’s position can be transmitted to a computer that controls the throttle in the vehicle’s engine. Specifically, Claim 4 of the patent described:

A vehicle control pedal apparatus comprising:

- a support adapted to be mounted to a vehicle structure;
- an adjustable pedal assembly having a pedal arm moveable in fore and aft directions with respect to said support;
- a pivot for pivotally supporting said adjustable pedal assembly with respect to said support and defining a pivot axis; and
- an electronic control attached to said support for controlling a vehicle system;

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

When Teleflex accused KSR of infringing the Engelgau patent by adding an electronic sensor to one of KSR’s previously designed ped-

9. *Id.* at 410.
10. *Id.* at 406.
11. *Id.*
12. *Id.*
als, KSR countered that claim 4 was invalid under 35 U.S.C. § 103 as obvious.\textsuperscript{15} The district court agreed with KSR and granted summary judgment, holding that the patent was invalid.\textsuperscript{16} But the Federal Circuit Court of Appeals reversed, principally relying on the TSM test.\textsuperscript{17} It ruled the district court had not been strict enough in applying the test, having failed to make specific findings as to the particular understanding or principle within the knowledge of a skilled artisan that would have motivated one to combine the prior art references.\textsuperscript{18} The U.S. Supreme Court reversed and rejected the “rigid” approach of the court of appeals.\textsuperscript{19} The Court confirmed the “expansive and flexible approach” that should instead be utilized.\textsuperscript{20} “The obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way.”\textsuperscript{21} Furthermore, “[w]hen 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 reason 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.”\textsuperscript{22} Despite initial concerns by some that KSR would effectively render many patents worthless, since the KSR decision there has not been a dramatic increase in the frequency at which courts have invalidated patents based on obviousness.\textsuperscript{23} Penscoske reviewed obviousness dispositions by courts pre- and post-KSR, as summarized in the table below.

\begin{center}
\begin{tabular}{ll}
15. & Id. \\
16. & Id. at 412. \\
17. & Id. at 413. \\
18. & Id. at 414. \\
19. & Id. at 415. \\
20. & Id. \\
21. & Id. at 419. \\
22. & Id. at 421. \\
\end{tabular}
\end{center}
Against this backdrop, this book presents a review of how obviousness has been treated by the administrative agencies (International Trade Commission and U.S. Patent and Trademark Office), the district courts of the various regional circuits, and the U.S. Court of Appeals for the Federal Circuit since the Supreme Court’s *KSR* decision in 2007.