

Is The Enablement Bar Too High For Patents To Meet?

Friday, Apr 25, 2008 --- As every good patent lawyer knows, a patent must contain an “enabling” disclosure of the invention. It must teach the skilled artisan how to make and use the invention without undue experimentation. Otherwise, the patent is invalid.

Without realizing it, a recent series of Federal Circuit decisions has established a standard for enablement that may arguably be higher than any patent can meet.

In *Sitrick v. Dreamworks, LLC*, 516 F.3d 993 (Fed. Cir. 2008), the Federal Circuit held that two patents were invalid because their claims encompassed an embodiment of the invention which the patents failed to explain how to make.

The invention substituted user-generated images for existing images in an audiovisual presentation. The patents said that the invention could be used to modify both games and movies.

They explained how to make the modification with games. However, it was not clear how the technique could be implemented with movies. Unlike games, images in a movie cannot be readily separated from the rest of a scene and replaced by user-generated versions.

The Federal Circuit invalidated the patents, explaining: “The full scope of the claimed invention must be enabled. ... Because the asserted claims are broad enough to cover both movies and video, the patents must enable both embodiments.” 516 F.3d at 1000.

Sitrick relied upon *Automotive Technologies International, Inc. v. BMW of North America, Inc.*, 501 F.3d 1274 (Fed. Cir. 2007). The invention deployed an airbag after sensing a crash. The patent said that both mechanical and electronic side impact sensors could be used, and the claims covered both. However, the patent only taught how to make mechanical side impact sensors. The patent owner urged that a claim is valid if the patent specification merely enables a single embodiment of the claim. The Federal Circuit disagreed:

We also reject ATI's argument that because the specification enables one mode of practicing the invention, viz., mechanical side impact sensors, the enablement requirement is satisfied. ...

[T]he claims includ[ed] both mechanical and electronic side impact sensors. . . . Thus, in order to fulfill the enablement requirement, the specification must

enable the full scope of the claims that includes both electronic and mechanical side impact sensors, which the specification fails to do.

501 F.3d at 1285. The court held the patent to be invalid.

Automotive Technologies was preceded by *Liebel-Flarsheim Co. v. MedRad, Inc.*, 481 F.3d 1371 (Fed. Cir. 2007). The claims in *Liebel-Flarsheim* encompassed fluid injectors with or without a pressure jacket. However, the patent only taught how to make fluid injectors with a jacket. Again, the Federal Circuit invalidated the patent because the “full scope of the claimed invention ... was not enabled.” 481 F.3d at 1378-79.

Liebel-Flarsheim relied upon *AK Steel Corp. v. Sollac*, 344 F.3d 1234 (Fed. Cir. 2003). Like the cases discussed above, the Federal Circuit invalidated a patent because its claims encompassed an embodiment that was not enabled by the patent.

The claims covered coating steel with aluminum of any type, but the patent only taught how to coat steel with Type 2 aluminum, not Type 1. The court again said that a patent “must enable one of ordinary skill in the art to practice the full scope of the claimed invention.” 344 F.3d at 1244.

Can the “full scope” of any claim truly be enabled by a patent?

Consider the idea of moving heavy objects with a vehicle. Centuries ago, this would have been a tremendous invention. The patent might have claimed a horizontal surface supported by two sets of rounded objects rotatably mounted to the horizontal surface. The patent might have explained that the rounded objects could have been made by grinding edges off of hard stone. However, rubber and rubber tires were unknown centuries ago. Would such a patent claim therefore have been invalid because the claim also embraced inflatable wheels made of rubber – an embodiment which no one knew how to make back then?

Here is another example – this time from an actual patent (claim 1 from randomly-selected U.S. Patent Number 4,018.095):

A driving device for a bicycle, which comprises

a front gear comprising one or more toothed sprockets mounted to a gear crank,

a rear gear comprising one or more toothed sprockets mounted to a rear hub, and

a driving chain stretched across said front and said rear gears, the teeth of the sprockets of the front gear and the rear gear have a pitch in the range of 8.5mm to 11.5mm respectively, and said driving chain having its pitch equal or multiples of said teeth pitch of the sprockets.

This claim does not specify the material out of which the rear gears are made. It therefore covers gears made of any material, such as paper. However, this patent fails to teach how to make gears from paper that would not crush under normal use. So is this claim invalid because it covers gears made of paper?

Can every patent claim fairly be described as embracing embodiments which are not enabled by the patent? For example, is the invention covered by every patent claim subject to being improved in a way that is not enabled by the patent? If so, does every patent fail to meet the “full scope” enablement standard established by the Federal Circuit in these cases?

One possible out may be the Federal Circuit’s decision in *Atlas Powder Co. v. E.I. duPont de Nemours & Co.*, 750 F.2d 1569, 1576 (Fed. Cir. 1984). In *Atlas*, the Federal Circuit stated: “Even if some of the claimed combinations were inoperative, the claims are not necessarily invalid.” The court quoted from a 1974 CCPA decision: “It is not a function of the claims to specifically exclude . . . possible inoperative substances . . .” *Id.*

The court went on to indicate that a claim is not invalid merely because it embraces inoperative embodiments when “one skilled in the art would know which [embodiments] would work . . .”

A similar principle has been adopted by the United States Patent and Trademark Office. See *Manual of Patent Examining Procedure* at §2164.08(b) (8th ed. 2007) (“The presence of inoperative embodiments within the scope of a claim does not necessarily render a claim nonenabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art.”)

Still, it is hard to square this exception for inoperative embodiments with the decisions in *Sitrick*, *Automotive Technologies*, *Liebel-Flarsheim*, and *AK Steel*.

In all of these cases, it seems as though the skilled artisan would have readily recognized that the non-enabled embodiments would not work.

Indeed, the patent in *AK Steel* even taught that it would not work. Yet, all of these patents were invalidated. *Atlas Powder* was never mentioned.

Could it instead be argued that the “full scope” enablement requirement which the Federal Circuit announced in *Sitrick*, *Automotive Technologies*, *Liebel-Flarsheim*, and *AK Steel* was merely obiter dictum and that their holdings were really attributable to facts in these cases that are not commonly present?

In *AK Steel*, for example, the claim covered embodiments that the patent made clear would not work. This fact was specifically cited by the Federal

Circuit in support of its invalidity holding: “We conclude that the specification is inadequate as a matter of law . . . because it expressly teaches against it [the non-enabled embodiment].” 344 F.3d at 1244.

The non-enabled embodiments in both Sitrick and Automotive Technologies were described in their patents as being viable. Arguably, it is more reasonable to expect a patent to enable embodiments which are expressly identified in the patent.

Finally, the claim in Liebel-Flarsheim had originally been limited to the enabled embodiment (Type 2 steel). It was broadened during prosecution to also embrace the non-enabled embodiment (Type 1 steel) in an apparent attempt to capture a competitor’s product. This was a red flag which, again, may have caused a more stringent standard to be applied.

Can every patent claim be credibly argued to embrace a non-enabled embodiment? Does the Federal Circuit truly believe that every claim which does so is invalid? These may be questions which only future decisions may answer.

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