Since some time in the 1990s, the Federal Circuit—the federal appellate court that handles all patent appeals—has increasingly awarded patent owners damages based on profits that they might have made on products that their patents do not cover. Initially, the idea was that sometimes a patent “convoys” sales of related products. A patented razor might convoy sales of razor blades, or a laser printer might convoy sales of toner.

The recent *Micro Chemical* case—*Micro Chemical, Inc. v. Lextron, Inc.;* 318 F.3d 1119 (Fed. Cir. 2003)—involved the application of this principle to a machine for dispensing microingredients (such as vitamins, antibiotics, and hormones) into livestock feed. The patentee and the infringer both gave their machines away. Apparently grateful users then bought the microingredients—at greatly elevated prices—from whichever company provided the machine. Obviously, the profits on the machines as such were zero or negative. The profit was on the microingredients, and that is what the Federal Circuit used, at least in principle, as the basis for calculating damages.

The court has also applied the principle to patented processes. In the *Minco* case—*Minco, Inc. v. Combustion Engineering, Inc.;* 95 F.3d 1109 (Fed. Cir. 1996)—the patent was on a process for making fused silica, an unpatented product used to make silicon wafers. The process used a special furnace, but the patent was on the process, not the furnace. The use of the furnace resulted in higher-quality silica. After the patent owner began using furnaces embodying the invention, it took market share away from the infringer, who in desperation obtained a copy of the patent, imitated the furnace design, and thus the process. This improved the infringer’s market share, but led to a patent infringement suit. The Federal Circuit awarded damages based on the profits that the patentee would have made on silica sales, if the infringer had not infringed.

In the *Rite-Hite* case—*Rite-Hite Corp. v. Kelley Co.,* 56 F.2d 1538 (Fed. Cir. 1935)—the court expanded the convoyed-sales principle to this situation: The patent owner did not make or sell a product embodying the patented invention, but instead sold an unpatented alternative. The patent covered a manual truck-loading device, and the patentee
preferred to market an automatic loading device (presumably, more expensive). The infringer put a manual product, one that used the invention, on the market. This diverted sales from the patentee to the infringer.

The majority of the Federal Circuit judges held that the patentee was entitled to recover the profits it would have made on the unpatented automatic product if it were not for the infringement (that is, if the manual device was not on the market). The dissenters took the position that the patentee was entitled to collect a reasonable royalty for the infringement, but not lost profits on unpatented products.

In Germany and Japan, the courts follow a contrasting rule to that of the Rite-Hite majority in the US. Those countries automatically disallow any recovery of profits if the patentee is not itself exploiting the invention. Their courts seek to encourage or compel patentees to manufacture the products of their patents.

In these cases, the infringer typically interferes with the business model of the patentee in an interesting way. For example, in Micro Chemical, the business model is that of the patented razor, unpatented blade system. People who rarely shave don’t find the invention very valuable and won’t pay much. Those with heavy beards use the invention heavily and thus need to buy more (unpatented) razor blades. By the same token, the invention is worth more to this latter group, and they are willing to pay more to use it.

By keeping the price of (patented) razor handles low, the seller in effect puts a meter on customer usage of the invention. The more a user uses the invention, the more that particular user pays, and conversely. Under this business model, the seller is better able to charge what the traffic will bear and thus extract a maximal revenue area under the price versus demand curve. In contrast, if the patentee charged a very high price for the (patented) razor handle and a low price for the (unpatented) blades—say, based on the weight of metal involved—the effect would be to charge much the same price to all users (on a flat rate basis; that is, the pershare price would be low for Nixon and high for Spode). In that case, people with light beards just wouldn’t buy the patented product—they’d use a cheaper substitute—while Nixon would not pay as much as the patentee might extract from him by means of a well-tuned business model.

The argument for having the courts recognize the propriety of this business model is that it promotes allocative efficiency. It directs money in the direction of desired products or services. It therefore follows, according to proponents of this business model, that the courts should enforce restrictions that facilitate the operation of the model and enter legal judgments that enforce or promote its successful operation. This translates into, among other things, awarding damages for patent infringement in such cases as Micro Chemical, based on the unpatented products that the patentee uses as the metering device.

In a case like Rite-Hite, the business model is based on the patentee’s ability to make more money by keeping the patented manual device off the market. This drives customers to buy the higher-priced automatic product. In a variation on this model, a patentee might keep an older product on the market somewhat longer (for example, if it is in the declining phase of its life cycle) to extract the investment in it. By the same token, a patentee might also keep the replacement off the market until it has extracted as much revenue as possible from the obsolescent product. Again, proponents of the business model argue that courts should enter legal judgments that enforce or promote the successful operation of the model (such as the judgment in the Rite-Hite case).

These decisions do not address an important question. The question is whether courts should distinguish between tolerating a business model (that is, not punishing people who adopt the model) and rendering the legal system’s aid to enforcing the business model—that is, punishing those who interfere with the operation of the model, and thus making them stop interfering.

Now, I haven’t put that question quite right. In a case where the court assumes infringement of a valid and enforceable patent, the difference is not between punishment and no punishment at all. It is a difference in how much punishment is appropriate. At minimum, the court will order the infringer to stop infringing and award some damages. The question is whether it will limit the damages to a reasonable royalty for the unauthorized use of the invention—say, 5 percent of net sales—or award profits that the patentee would have gained if successful in carrying out the business model, which is a much higher amount.

In the cases I described, the Federal Circuit has made the policy decision to enforce the patentees’ business model. It awards damages on the basis of what the patent owners would have gained under the chosen business model. One might well conclude that the coercive force of the government (of which the court system is a part) should not be enlisted to compel acquiescence in the patent owners’ preferred model. If they can cause the market to smile on them, more power to them. If they cannot, that really may not be the state’s concern. The patent system exists to promote the progress of technology, not business models, or even rewarding patent owners. Such rewards are merely instrumental and thus incidental, not the goal. In principle, rewarding patent owners by guaranteeing them profits on unpatented products that they could have sold, but for an infringer’s improper activity, seems excessive and it is doubtful that it will benefit the general public.

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