

United States Court of Appeals for the Federal Circuit

2008-1528, -1529

STEVEN D. RITCHIE and
H. DAVID REYNARD (as Trustee for the Harlie David Reynard, Jr. Revocable Trust),

Plaintiffs-Appellants,

v.

VAST RESOURCES, INC. (doing business as Topco Sales),

Defendant-Cross Appellant.

Edward P. Dutkiewicz, Edward P. Dutkiewicz, P.A., of Dade City, Florida, argued
for plaintiffs-appellants.

Michael D. Harris, SoCal IP Law Group, LLP, of Westlake Village, California,
argued for defendant-cross appellant.

Appealed from: United States District Court for the Middle District of Florida

Judge Richard A. Lazzara

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v.

VAST RESOURCES, INC. (doing business as Topco Sales),

Defendant-Cross Appellant.

Appeals from the United States District Court for the Middle District of Florida
in case Nos. 8:06-CV-2128 and 8:06-CV-2229, Judge Richard A. Lazzara.

DECIDED: April 24 ,2009

Before MICHEL, Chief Judge, BRYSON, Circuit Judge, and POSNER, Circuit Judge.^{*}
POSNER, Circuit Judge.

The plaintiffs brought suit for patent infringement against the defendant, and prevailed in the district court, precipitating an appeal that, among other things, challenges the patent's validity. Dissatisfied with the amount of relief the court gave them, the plaintiffs cross-appeal; but on the view we take, the only issue we shall have

* The Honorable Richard A. Posner, Circuit Judge, United States Court of Appeals for the Seventh Circuit, sitting by designation.

to consider is whether the patented invention would have been “obvious” to persons skilled in the relevant art, as that word is understood in patent law. 35 U.S.C. § 103(a).

The plaintiffs own a manufacturer, called Know Mind Enterprises, and the defendant, doing business under the name Topco Sales, is another manufacturer. Both firms produce what the parties call “sex aids” but are colloquially referred to as “sex toys.” A more perspicuous term is “sexual devices,” by analogy to “medical devices.” The analogy lies in the fact that, like many medical devices (thermometers for example), what we are calling sexual devices are intended to be inserted into bodily orifices, albeit for a different purpose.

The devices are generally in the shape of rods of various curvatures and are made out of rubber, plastic, glass, or some combination of these materials. Until the plaintiffs began manufacturing their patented sexual devices, glass sexual devices were made out of soda-lime glass, the most common form of glass. The plaintiffs’ patent (U.S. Patent No. Re 38,924, the 2005 reissue of No. 6,132,366, filed on April 1, 1999) claims a “sexual aid...fabricated of a generally lubricious glass-based material containing an appreciable amount of an oxide of boron to render it lubricious and resistant to heat, chemicals, electricity and bacterial absorptions.” Glass that contains boron oxide is called “borosilicate glass.” The “silicate” is a reference to the fact that like most glass, the predominant component of borosilicate glass is silica.

By “lubricious”—a word whose primary meaning, appropriate for a sexual device, is “lecherous”—the patent means only “slippery,” which is the secondary meaning of the word. The patent’s use of the word in that sense is confusing, because glass is smooth rather than slippery. But what is meant is that the glass, because it contains oxide of

boron, is smoother than soda-lime glass and therefore becomes slippery with less lubricant than a device made out of soda-lime glass. The patent's use of the term "appreciable amount" of oxide of boron is also troublesome, because it is vague. But apparently all that is meant is that the plaintiffs are claiming that their invention uses glass that has the amount of boron oxide usually found in borosilicate glass.

Borosilicate glass is the glass out of which Pyrex glassware was originally made, and is sometimes still made. Corning Glass Works (now Corning, Inc.), the original manufacturer of Pyrex glassware, now makes its kitchen glassware (still under the trade name Pyrex) out of tempered soda-lime glass, except in the European Union, where it continues to make it out of borosilicate glass.

That glass has the properties that the patent claims for it, and one can see how those properties (even resistance to electricity, see M. Klintschar, P. Grabuschnigg & A. Beham, Death from Electrocution During Autoerotic Practice: Case Report and Review of the Literature, 19 Am. J. Forensic Med. Pathology 190 (1998)) might enhance the utility of sexual devices made out of it. Nevertheless, though the plaintiffs' invention is useful (setting aside any qualms that one might have about sexual devices in general), it is not patentable if it would have been "obvious," not of course to the average person but to a person having the relevant technical skills. Given that it has commercial value, as heavily emphasized by the plaintiffs, and given that Pyrex, made originally as we said from borosilicate glass, has been sold by Corning for almost a century (and it was sold under other names beginning in 1893, when borosilicate glass was first invented), to call its use in a sexual device "obvious" may seem the triumph of hindsight over insight. Commercial value is indeed one of the indicia of nonobviousness, Graham v. John

Deere Co., 383 U.S. 1, 17–18 (1966); Simmons Fastener Corp. v. Illinois Tool Works, Inc., 739 F.2d 1573, 1575–76 (Fed. Cir. 1984), because an invention that has commercial value is likely to come on the market very shortly after the idea constituting the invention (in this case the use of borosilicate glass in a sexual device) became obvious; if the invention did not appear so soon despite its value in the market, this is some evidence that it wasn’t obvious after all. But for a variety of reasons commercial success is deemed a “secondary” indicator of nonobviousness. E.g., Graham v. John Deere Co., *supra*, 383 U.S. at 18; Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1483–84 (Fed. Cir. 1997). The commercial success of a product can have many causes unrelated to patentable inventiveness; for example, the commercial success of an “invention” might be due not to the invention itself but to skillful marketing of the product embodying the invention.

Among the inventions that the law deems obvious are those modest, routine, everyday, incremental improvements of an existing product or process that confer commercial value (otherwise they would not be undertaken) but do not involve sufficient inventiveness to merit patent protection. This class of inventions is well illustrated by efforts at routine experimentation with different standard grades of a material used in a product—standard in the sense that their properties, composition, and method of creation are well known, making successful results of the experimentation predictable. This is such a case.

A manufacturer might change the composition of a type of glass, such as borosilicate glass, by adding or subtracting types or amounts of the various components; and the change might not be obvious in any sense. The plaintiffs’ patent,

however, with its vague reference to “appreciable amounts” of oxide of boron, does not claim any variant of off-the-shelf borosilicate glass. And since that is a standard product with well-known properties—including the properties listed in the patent—to experiment with substituting borosilicate glass for ordinary glass in a sexual device was not a venture into the unknown. That is in contrast with inventing medical devices, which require testing for safety and efficacy and approval by the Food and Drug Administration before they can be sold. Medical Device Amendments of 1976, 21 U.S.C. § 360c, et seq.; see Medtronic, Inc. v. Lohr, 518 U.S. 470, 475–77 (1996).

This case thus exemplifies the Supreme Court’s analysis in KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398 (2007). “When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a *person of ordinary skill in the art would recognize that it would improve similar devices in the same way*, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.* at 417 (emphasis added). (The last sentence describes our case to a tee.) There was, the Court continued, no need for the district court to “seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *Id.* at 418. See also Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1326–27 (Fed. Cir. 2008).

Another case on point is Ball Aerosol & Specialty Container, Inc. v. Limited Brands, Inc., 555 F.3d 984, 992–93 (Fed. Cir. 2009): “The combination of putting feet on the bottom of the candle holder and using the cover as a base for the candle holder was a predictable variation.... The combination of a cover-stand and feet on the bottom of the candle holder was obvious to try in an effort to minimize scorching, as the combination would further raise the bottom of the candle holder above the supporting surface. The resulting, and desired, decreased heat transfer between the candle holder and the supporting surface from the combination would have been entirely predictable and grounded in common sense.”

And if more is required to make our point, there is the venerable case of Hotchkiss v. Greenwood, 52 U.S. (11 How.) 248 (1851), cited approvingly in KSR Int'l Co. v. Teleflex Inc., supra, 550 U.S. at 406, 415, which denied patentability to an invention consisting of the substitution of a clay or porcelain knob for a metallic or wood knob in a doorknob (the doorknob itself, as distinct from the knob on the end of it, being an assemblage of knob, shank, and spindle). Other substitution cases in which patentability was denied on grounds of obviousness include Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1535–38 (Fed. Cir. 1983); Brunswick Corp. v. Champion Spark Plug Co., 689 F.2d 740, 749-50 (7th Cir. 1982), and Lyle/Carlstrom Associates, Inc. v. Manhattan Store Interiors, Inc., 635 F. Supp. 1371, 1381-83 (E.D.N.Y. 1986), aff'd, 824 F.2d 977 (Fed. Cir. 1987). These decisions, too, support our conclusion that the judgment must be reversed with instructions to dismiss the suit.

REVERSED