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General: Criteria for determining whether prior art is analogous may be summarized as “(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.”

SCIENTIFIC PLASTIC PRODUCTS, INC., v. BIOTAGE AB

112 U.S.P.Q. 2d 1226-1232

Decided September 10, 2014

I. Facts

Scientific Plastics Products, Inc. (SPP) owns three patents: No. 7,138,061, No. 7,381,327, and No. 7,410,571. All three related to a resealable cartridge for low pressure liquid chromatography (LPLC). SPP sued Biotage for patent infringement and Biotage requested *inter partes* reexamination of all three patents.

The Examiner rejected all claims of the three patents for obviousness and was affirmed by the Patent Trial and Appeal Board.

The court cited claim 1 of the ‘327 patent as having the broadest scope. That claim recited a tubular polymer container, a polymer cap, and an annular sealing flange, with novelty focused on, “a lip defining an opening to the container with an inward facing inclined sealing surface adjacent the lip and facing the longitudinal axis,” and “an outward facing inclined sealing surface facing away from the axis.”

The obviousness rejection was based on three references:

Yamada shows an LPLC cartridge having a tubular polymer container with an open upstream end and an outflow at the downstream end. Yamada shows a threaded polymer cap for the cartridge that is “detachably” fitted to the corresponding threaded upstream end of the cartridge body. Yamada further shows an O-ring in the cap to ensure liquid tightness. The examiner found that Yamada discloses all of the features of the SPP cartridge except for the complementary inclined sealing surfaces of the cap and the lip of the container.

King relates to liquid-tight sealing of beverage containers, and the Examiner found that King shows oppositely inclined sealing surfaces, as in the SPP closure.

Strassheimer relates to plastic bottles and closures “especially useful for carbonated beverages.” The Examiner found that Strassheimer shows a taper similar to the SPP closure.

The Examiner concluded that the claims were obvious under Yamada in light of either King or Strassheimer. The Board agreed with the Examiner and SPP appealed.

II. Issues

(1) Whether the examiner correctly determined that King and Strassheimer were “analogous art.” and

(2) Whether it would have been obvious to combine the LPLC cartridge of Yamada with the pressure-resistant resealable cap of either King or Strassheimer.

III. Discussion

(1) **Yes.** Criteria for determining whether prior art is analogous may be summarized as “(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.”

The question in this case is part (2). The court agreed with the Board that King and Strassheimer references address the problem of providing a fluid tight seal at elevated pressures, between a container and a resealable cap. As this is sufficiently close to the problem addressed by the claimed invention, substantial evidence was found to supports the Board’s finding that King and Strassheimer are available as prior art.

(2) **Yes.** The Board concluded that the “known problem of leakage in threaded connections of plastic LPLC cartridges under pressure identified in the patents provides a reason for one of ordinary skill in the art to have turned to King or Strassheimer to improve the sealing arrangement set forth in Yamada.” Board Op. at *8. The Board cited a statement in the SPP patents that explained that because prior art LPLC cartridges “leak at the seams, threaded connections are thus not used to form the body of LPLC cartridges when the body is made out of polymers.” Id. at *6. The Board noted SPP’s argument that Yamada, a polymer cartridge with threaded connections, does not explicitly disclose a leakage problem. However, the Board found that “by providing for the presence of an O-ring, Yamada implicitly acknowledges that there is a potential leakage issue between the cap and column body of the plastic cartridge.” We conclude that the Board did not err.

IV. Conclusion

The Board did not err in holding that it would have been obvious for a person of ordinary skill in the field of the invention to modify the chromatography cartridge of Yamada with the resealable threaded cap of King or Strassheimer.

V. Dissent

Judge Moore disagreed with the majority on two points: 1) the Board failed to provide substantial evidence that it would have been obvious to modify Yamada and 2) it failed to determine the level of ordinary skill in the art

As to the evidence for obviousness, Judge Moore stated “the Board’s finding regarding Yamada’s O-ring, Board Op. at *7, ignores the reality of the situation, which is that Yamada did not have a leakage problem. Yamada does not disclose leakage problems. *Id.* Even Biotage’s expert admitted that Yamada’s configuration did not have leakage problems at the pressures identified by the patents-at-issue.”

“The patents do not indicate that leakage was a problem identified in the prior art or a problem known to those of skill in the art. Rather they indicate that the claimed design will avoid leakage. These inventors identified a design problem, articulated it, and solved it. There is absolutely no evidence of the existence of a known leakage problem that would have motivated skilled artisans to modify Yamada. The Board is taking the ingenuity of these inventors and, without any record basis, attributing that knowledge to all skilled artisans as the motivation to make the inventions at issue. Hindsight, hindsight, hindsight.”

As to the level of ordinary skill in the art, Judge Moore stated “An ordinarily skilled chemist would have likely looked to a different body of prior art than an ordinarily skilled mechanical engineer with industrial design experience. Even Biotage recognizes that the determination of the person of ordinary skill is inextricably linked to what art would have been analogous. We cannot answer the analogous art question without knowing who the person of ordinary skill is.”