

Keywords: Patent anticipation; obviousness; literal infringement; claim construction; claimed numerical ranges.

General: It may be possible to find that a claim is both non-obvious and anticipated by the same set of references.

Cohesive Technologies Inc. v. Waters Corp.
88 U.S.P.Q.2d 1903 (Fed. Cir. 2008)
Decided October 7, 2008

I. Facts

Cohesive Technologies, Inc. brought three related actions for patent infringement of U.S. Patent No. 5,772,874 (“the ‘874 patent”) and U.S. Patent No. 5,919,368 (“the ‘368 patent”) against Waters Corp. The ‘368 patent issued from a divisional application of the ‘874 patent. The technology at issue is high-performance liquid chromatography (HPLC). HPLC may be used in drug testing to separate absorbed compounds from blood. More specifically, HPLC works by forcing a liquid under pressure through the inlet of a column (e.g., tube) containing solid particles of a given size and shape. The solid particles will delay the passage of certain compounds through the column by physically and chemically interacting with the compounds. The delay time is considered a reasonably unique identifying characteristic of a given compound.

District Court Proceedings

Two key limitations were at issue in the district court: particles that are “rigid” and have average diameters “greater than about 30 μm .” In the first action, Cohesive alleged that Waters’ 30 μm Oasis HPLC columns infringed the ‘874 patent. In the second action, Cohesive alleged that Waters’ 30 μm Oasis HPLC columns infringed the ‘368 patent. During the trial in the first action, Waters replaced their 30 μm columns with 25 μm columns. Cohesive then brought the third action alleging that Waters’ 25 μm Oasis HPLC columns infringed both the ‘874 patent and the ‘368 patent. Waters alleged that the patents were invalid, that the patents were obvious, that the patents were anticipated in light of the prior art, and inequitable conduct. The same seven prior art references were introduced as evidence of obviousness and anticipation.

Over Waters’ objection, the district court chose not to submit the issue of anticipation to the jury in the first action and only submitted jury instructions on the issue of obviousness. The district court “[thought] of anticipation as being a subset of obviousness.” Moreover, the district court commented that Waters’ anticipation case was “iffy” and that it did not understand why a defendant “would want [a] charge on anticipation when they get one on obviousness.” Furthermore, the court stated that declining to charge on anticipation would not cause “any real harm to the defendant.” As for the term “rigid”, the district court construed the term so that it did not exclude polymeric particles (as opposed to the monomeric particles referred to in the preferred embodiment of the ‘874 patent). Waters’ argued that Cohesive had disclaimed polymeric particles during patent prosecution. In order to overcome prior art from Afeyan et al., Cohesive had submitted during patent prosecution the declaration of a chromatography expert stating that:

While Afeyan *et al* mention that they desire their particles to be rigid solids, such comment can be read best in light of their teachings... that mention only polymeric materials such as divinylbenzene and the like. Such polymeric material cannot be expected to maintain the requisite rigidity to withstand the pressure required to obtain a reduced velocity of 5000 or higher through a chromatographic column with particles of the diameter disclosed by Afeyan *et al*, so cannot be considered to be a teaching of rigid solid particles within the meaning of the claims....

The jury found that the '874 patent was not obvious, not unenforceable, and that Waters' 30 μm columns infringed the '874 patent. Accordingly, the district court *sua sponte* entered a directed verdict finding that the patent was not anticipated. The district court then held a combined bench trial and hearing on damages, willful infringement, and inequitable conduct in the first action and on preliminary injunction and summary judgment motions in the second and third actions. In the first action, the district court entered judgment in favor of Cohesive. In the second action, the district court granted Cohesive's motion for summary judgment of infringement and no invalidity. The district court also found that Waters' had failed to prove willful infringement and inequitable conduct and awarded damages. In the third action, the district court granted Waters' motion for summary judgment of noninfringement because it concluded that the 25 μm columns were not "greater than about 30 μm ." The district court construed "not "greater than about 30 μm " to exclude 29.01 microns.

II. Issues

- A. Did the district court properly construct the term "rigid" to not exclude all polymeric particles?
- B. Did the district court properly construct the term "greater than about 30 μm " to exclude 29.01 μm particles?
- C. Did the district court err in declining to charge anticipation?

III. Discussion

- A. Yes. The Federal Circuit stated that while Cohesive had disclaimed some polymeric particles as not "rigid", Cohesive had not disclaimed all polymeric particles. The Federal Circuit read the expert declaration as disclaiming only "divinylbenzene and the like." Waters' argued that under such a reading their particles did not infringe because they were copolymers of divinylbenzene (i.e., made from 80% divinylbenzene) and therefore fell under the disclaimed subject matter. The Federal Circuit stated that "a divinylbenzene molecule alone and copolymer containing 80% divinylbenzene are different chemical compounds, with different properties-including different rigidities." Therefore, the copolymer of divinylbenzene was not equivalent to "divinylbenzene and the like."
- B. No. The Federal Circuit stated that when "about" is used as part of a numeric range, the range must be determined by focusing on the "criticality of the [numerical limitation] to the invention." In the instant case, one would look to the purpose that the "about 30 μm " limitation serves and then one would look at how much smaller than 30 μm the average particle diameter can be and still serve that purpose. The Federal Circuit noted that the specification shows that the function of the low end limit on particle size relates to the ability of the column to capture compounds from the liquid when the liquid is flowing at high flow rates and the particles size results in turbulence. Moreover, the specification states that because the particles may be unevenly shaped, a particle with an actual mean diameter of 43.39 μm would correspond to a nominal diameter of 50 μm within a 95% confidence factor and still work.

The Federal Circuit determined that the specification meant that a variance in nominal diameters of 15.22% was acceptable. The specification also states that particles with a 20 μm nominal diameter would not work. Therefore, the Federal Circuit found that a particle having actual diameter of 20 $\mu\text{m} \pm 15.22\%$, i.e., between 16.956 μm and 23.044 μm would not work. Similarly, a particle of "about 30 μm " would work and would correspond to 30 $\mu\text{m} \pm 15.22\%$, i.e., between 25.434 μm and 34.566 μm . For the particles between 23.044 μm and 25.434 μm , the Federal Circuit found that "about 30 μm " means a particle of a size large enough to assure that a column

containing the particles is capable of attaining turbulence. Taken in the light most favorable to Waters, the 25 μm particles have an average diameter of 25.16 μm . Therefore, it may be possible for Waters' 25 μm particles to infringe.

- C. Yes. The Federal Circuit stated that obviousness and anticipation are two separate defenses and that both have to be considered even when the prior art references are the same. It is up to the defendant and not the court to determine the strategic decision as to whether to assert obviousness, anticipation, or both defenses. Furthermore, the Federal Circuit noted that the often quoted axiom that "every anticipated claim is obvious" is not always correct. For example, consider a claimed metal alloy that has great commercial success. Others had tried and failed to produce the alloy. There was a long felt need for the alloy. One can therefore say that the alloy is not obvious. However, there may be a centuries-old alchemy textbook that while not describing the metal alloy nevertheless teaches a method that if practiced precisely would produce the claimed alloy. The alchemy textbook would inherently anticipate the claims under 35 U.S.C. § 102 and yet the claims would not be considered obvious under 35 U.S.C. § 103. Therefore, a court cannot refuse to submit the issue of anticipation to the jury simply because the accused infringer has also asserted an obviousness defense.

IV. Dissenting Opinion on the Issue of Anticipation

Judge Mayer issued a separate opinion that dissented on the issue of anticipation. Judge Mayer stated that it is true that a district court should not refuse to submit a defense of anticipation merely because an accused infringer has also asserted an obviousness defense. However, once the jury has determined that the claims are non-obvious using the same allegedly anticipating prior art, it would be a waste of time and court resources to remand on the issue of anticipation. Judge Mayer noted that the majority's assertion that a claim can be anticipated but not obvious "flies in the face of a long line of precedent to the contrary." The majority had been unable to cite a single case remanding to the district court on the issue of anticipation while at the same time sustaining a finding of non-obviousness.

IV. Conclusion

A defense of obviousness and a defense of anticipation are separate defenses that an alleged infringer may bring forth. A court cannot refuse to submit the issue of anticipation to the jury simply because the jury will determine the issue of obviousness, even if the same references are to be used in determining both issues. It may be possible to find that claims are anticipated but non-obvious. When using a numerical limitation that includes the term "about", the limitation is construed based on the criticality of the limitation to the invention.