

**Keywords: claim construction; plain and ordinary meaning; intrinsic evidence; prosecution history**

**General: During claim construction, claim terms are generally given their plain and ordinary meanings unless the patentee explicitly provided an alternative definition; intrinsic evidence illustrates the patentee distinguished the claimed invention from the prior art, expressly disclaimed subject matter, or stressed a particular feature as important to the invention; or the term employed obfuscates the scope of the claim.**

*W.E. Hall Co. v. Atlanta Corrugating LLC*  
71 U.S.P.Q.2d 1135 (Fed. Cir. 2004)  
June 7, 2004

## I. Facts

Hall is the owner of U.S. Patent No. 4,838,317 (“the ‘317 patent”), which is directed to a hydraulically efficient metal pipe for use in storm drain and sewer applications. To fortify their products, metal pipe manufacturers will typically construct metal pipes with either an overly thick gauge or corrugation. However, increasing the gauge or corrugating the metal pipe increases the cost of manufacture, making the pipe less competitive with concrete pipe alternatives. Particularly, the Hall pipe is directed to providing a metal pipe that is strong enough to withstand burial, has a hydraulic efficiency exceeding that of concrete pipe, and is economically competitive with concrete pipe. Notably, the Hall pipe achieves these results by including ribs in the pipe wall. Claim 1 of the ‘317 patent recites, in relevant part:

A hydraulically efficient underground pipe of *single piece construction ... consisting essentially of* a cylindrical metal wall ... and a plurality of outwardly projecting walled-structural supporting ribs extending helically about and along the length of said wall ... said ribs defining a corresponding plurality of *open channels* formed interiorly thereof ....

‘317 patent, col. 13, ll. 1-23 (emphasis added).

During prosecution, the Examiner rejected the Hall application under 35 U.S.C. § 103 on the basis of U.S. Patent No. 4,161,194 to Nyssen (“the Nyssen patent”) and secondary references. As noted by the court, the Nyssen pipe is similar to the pipe described by the ‘317 patent. However, while both the Hall and the Nyssen pipes include ribs in the walls of the pipes, the Nyssen patent discloses use of a metal reinforcement element within the rib to close the rib opening from the inside surface of the pipe. The Hall pipe has no such reinforcement element. The “single piece construction” limitation was added and relied upon by the Applicants during prosecution to distinguish it from the Nyssen patent. To further distinguish the application over the cited art, Applicants also amended claim 1 by replacing the original transitional phrase “comprising” to “consisting of,” which was later revised to “consisting essentially of.” It should be noted that the same amendments were made to the other independent claims of the application. Following these amendments, the Examiner allowed the claims of the Hall application.

Subsequently, Hall filed suit against Atlanta Corrugating LLC in United States District Court for the Northern District of Georgia alleging infringement of the ‘317 patent. Atlanta counterclaimed for a declaration of invalidity of the ‘317 patent, a declaration of non-infringement, and violation of the antitrust laws. The allegedly infringing Atlanta pipe is also a ribbed pipe and includes a

metal insert positioned within the ribs to seal the channels of the ribs from the interior surface of the pipe.

Upon analysis, the district court identified the meaning of the terms “single piece construction” and “open channels” as the main point of contention between the parties. Because the court could find no evidence in the written description or prosecution history of the ‘317 patent that Hall had chosen to be their own lexicographer, the court assigned the terms their ordinary and customary meanings. Notably, the district court found that the term “open channel” could not encompass channels that were closed with metal inserts as in the Atlanta pipe. Likewise, the district court also found that the term “single piece construction” was inconsistent with a pipe having multiple pieces. Though Hall argued that the prosecution history of the ‘317 patent indicated a departure from the ordinary and customary meaning of these terms, the district court disagreed and suggested that the prosecution history of the application actually supported its construction of the terms.

Hall also argued that utilization of the term “consisting essentially of” allowed the Atlanta pipe to include a metal insert while still falling within the scope of claim 1 of the ‘317 patent. However, the district court rejected this argument because the inclusion of such an insert materially affected the pipe by increasing the cost and affecting the hydraulic efficiency and corrosive properties, which the court viewed as novel and basic aspects of the invention.

Accordingly, the district court granted Atlanta’s motion for summary judgment of non-infringement, noting that Atlanta’s pipe was not of single piece construction and did not have open channels. Upon motion by Atlanta, the district court dismissed Atlanta’s counterclaims and ruled in favor of Atlanta on its claim for a declaration of non-infringement. Hall subsequently appealed.

## **II. Issues**

- A. Was the claim construction of the terms “open channel” and “single piece construction” by the district court correct?
- B. Did the district court err in rejecting the arguments made by Hall with respect to the transitional phrase “consisting essentially of”?

## **III. Discussion**

- A. Yes. Like the district court, the Federal Circuit panel assigned the terms “open channel” and “single piece construction” their plain and ordinary meanings, noting that nothing in the prosecution history or specification clearly suggested the intent of the patentee to use the terms in a different manner. Interestingly, the panel resorted to a dictionary definition for the term “open,” but suggested that the meaning of the term “single piece” was apparent on its face. In attributing the plain and ordinary meanings to these terms, the court rejected arguments advanced by Hall that the prosecution history clearly indicated that the term “open channels” was used to indicate a channel free of additional *reinforcing* elements. The court also rejected arguments by Hall that the term “single piece construction” only excludes elements that contribute to the structural integrity of the pipe. Because these terms were not used during prosecution in a manner that was inconsistent with their plain and ordinary meanings, the panel upheld the district court’s use of the common meanings of these terms.
- B. No. The transitional phrase “consisting essentially of” does permit additional elements that do not materially affect the novel and basic properties of the invention. The panel, however, noted that a product with additional, immaterial elements only infringes if it also contains each of the elements recited by the claim. Thus, the court held that the Atlanta pipe could not

infringe claim 1 of the '317 patent regardless of the materiality of any additional elements due to the Atlanta pipe having closed channels instead of open channels. Having rejected each of the arguments advanced by Hall, the Federal Circuit affirmed the lower court's granting of summary judgment on noninfringement in favor of Atlanta.

#### **IV. Conclusion**

Unless a term is ambiguous or the patentee otherwise clearly indicates a different meaning during prosecution, claim terms will be accorded their plain and ordinary meaning.