

United States District Court,
D. Delaware.

CORDIS CORPORATION,
Plaintiff.

v.

MEDTRONIC AVE, INC.; Boston Scientific Corporation; and Scimed Life Systems, Inc,
Defendants.

No. CIV. A. 97-550-SLR, CIV. A. 98-65-SLR

Sept. 7, 2000.

MEMORANDUM ORDER

ROBINSON, District J.

At Wilmington this 7th day of September, 2000, having heard oral argument and having reviewed papers submitted in connection therewith;

IT IS ORDERED that the disputed claim language identified by the above referenced parties shall be construed as follows: FN1

FN1. The court has issued three previous orders dealing with claim construction in this case. Consequently, the court shall not repeat here the principles that govern claim construction. To the extent the court does not readdress claim language in the instant order, the rulings in previous orders remain the law of the case.

1. The '762 Patent-Claim 23.

a. "Tubular member." A discrete structure that has the form of a tube, that is, a hollow, elongated, usually cylindrical structure with two ends.FN2 *Webster's Third New International Dictionary* 2459 (1993) ("*Webster's* "). (D.I. 393 at 14; D.I. 464 at 2)

FN2. Although it may be possible, as Cordis argues, to have a tube that is not elongated, there is no evidence of record that such a construction is appropriate; indeed, both the ordinary meaning of the language chosen and the specification indicate to the contrary.

b. "Thin-walled:" The wall of the tubular member must "hav[e] little extent from one surface to its opposite" at both its first and second diameters. *Webster's* at 2375. (D.I. 691, Ex. 36 at PWRAP 003054 SUB, PWRAP 003063-64) FN3

FN3. AVE argues that stents having wall thicknesses above .0035 inches cannot be "thin-walled." The prosecution history upon which AVE relies for this proposition was directed to the "substantially uniform thickness" language, however, not the concept of "thinness ." (D.I. 691, Ex. 36 at PWRAP 003051 SUB)

c. "Wall surface." The outer surface of the tubular member must be "disposed in a common cylindrical plane." (D.I. 691, Ex. 36 at PWRAP 003054 SUB)

d. "Substantially uniform thickness." The thickness at all points along the wall surface of the tubular member, both at its first and second diameters, must be substantially the same. Variances as little as .001 fall outside the scope of "substantially uniform." (D.I. 691, Ex. 36 at PWRAP 003050 SUB-003051 SUB, 003054 SUB-003055 SUB, 003079 SUB)

e. "Plurality of slots." More than one slot. A "slot" is "a long and narrow opening or groove," "an opening whose length is substantially greater than its width." The claim requires slots in the tubular members that run substantially parallel to the longitudinal axis. *Webster's* at 2146; '762 patent, col. 7, lines 17-20.

f. "Slots formed therein." Slots must be formed in the wall surface of a tubular member, as by the removal of material.FN4 (D.I. 462 at 20; D.I. 464 at 18)

FN4. Upon reconsideration, the court agrees with Cordis to the extent that the material need not be removed from a preexisting tubular member.

g. "Smooth surface." The outside of the wall surface of the unexpanded tubular member has "a continuously even surface," "without roughness, points, bumps or ridges, esp[ecially] to the touch." *Webster's* at 2152. (D.I. 691, Ex. 36 at PWRAP 003049 SUB-003050 SUB, 003053 SUB)

2. The '984 Patent-Claim 1.

a. "Only one." A single unit and no more. *Webster's* at 1575. (D.I. 684, Ex. 34 at PWRAP 000583-000584)

b. "Connector member." A discrete structure disposed or particularly arranged between adjacent tubular members in order to join them together. (D.I. 393 at 12; D.I. 462 at 21-24)

c. "To flexibly connect adjacent tubular members." To connect in such a way as to allow turning, bowing or twisting without breaking. *Webster's* at 869. As stated previously, the connector member must provide flexibility, whether or not the adjacent tubular members themselves are flexible. (D.I. 284 at 16; D.I. 393 at 13; '984 patent, col. 3, lines 7-39; D.I. 684, Ex. 24 at PWRAP 000536)

d. "Substantially parallel." The connector member must run in substantially the same direction as the longitudinal axis of the adjacent tubular members. ('984 patent, col. 3, lines 53-56) This means "that the slots and the connectors run in the same direction and are substantially aligned with one another." (D.I. 684, Ex. 62 at PWRAP 000674)

e. "Coplanar." The connector member must lie within the planes formed by the inner and outer wall surfaces of the adjacent tubular members. (D.I. 464 at 18-23)

3. The '332 Patent-Claim 1.

a. "Segment." "[A] piece or separate fragment of something;" "one of the constituent parts into which a body ... is or may be divided." *Webster's* at 2056.

b. "Generally tubular shape." The phrase "segment having a generally tubular shape" is broader in scope than the phrase "tubular member" and may encompass segments that are not perfectly hollow, elongated or cylindrical in shape.

c. "Plurality of openings." More than one opening, that is, more than one breach or aperture. *Webster's* at 1580, 1745.

d. "Openings forming a series of alternating open and closed portions." The court believes it is inaccurate to describe "openings" as "forming" FN5 "portions." FN6 It can be said, however, that all openings have "open" (by definition) and "closed" portions, the closed portions comprising the material that gives form to or encloses the opening and serves to "block or shut off ... entry or passage" in some fashion. *Webster's* at 426. The claim requires that the openings in the segment alternate around the circumference so that each end of the segment consists of alternating open and closed portions. FN7 The court construes the phrase at issue to mean a combination of openings, some of which are "open," i.e., without enclosing material at the end of the segment thus permitting ingress and egress, and some of which are "closed," i.e., having enclosing material at the end of the segment thus blocking or shutting off entry or passage.

FN5. "To form" means "to give form or shape to; frame, construct, make, fashion." *Webster's* at 893.

FN6. A "portion" is defined as "a part of a whole." *Webster's* at 1768.

FN7. Cordis admits, as evidenced by the file history, that it grafted this new claim language onto the '762/'417/'984 specification in order to cover the accused products based on its "building block" theory. The new claim language, therefore, is nowhere found in the specification but is intended to describe the following phenomenon: "The openings at the first and second ends of each of the segments form a series of alternating open and closed portions so as to define a wave form having a plurality of peaks and valleys." (D.I. 687, Ex. 32 at PWRAP 002936) Although the court is very uncomfortable with having claim language more attuned to a party's litigation needs than the substance or purpose of the underlying invention, the claim construction exercise is not the forum for this debate.

e. "Connector." As defined above. The specification and file history describe a single connector. However, the language of the claim ("comprising ... a first connector") has been broadened from that of the '984 patent ("comprising ... a single connector"). Therefore, the court will not impose the single connector limitation on this claim language.

f. "Whereby each of the segments may be displaced at an angle with respect to the longitudinal axis of an adjacent segment when the stent is delivered through a curved portion of the access or coronary arteries." "Displaced" means "to remove from the usual or proper place, to put out of place." *Webster's* at 654. An

"angle" is a "figure formed by two lines diverging from the same point or by two surfaces diverging from the same line." *Webster's* at 83. "Axis" is defined as "a straight line with respect to which a body or figure, or system of points is either radially or bilaterally symmetrical." *Webster's* at 153. The phrase modifies the word "segment;" the phrase as written indicates that the entire segment (not a portion thereof) must be capable of angular displacement with respect to the longitudinal axis of the adjacent segment (not a portion thereof). In light of the specification, which speaks only in terms of a connector being disposed to flexibly connect FN8 rather than in terms of flexible segments, the court concludes that the limitation requires relatively rigid segments and relatively flexible connectors.

FN8. See, e.g., '332 patent, col. 3, lines 43-48, 59-61; col. 10, lines 5-9.

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