

**Keywords:** Claim interpretation; doctrine of equivalents; prosecution history estoppel; exercise equipment.

**General:** Use of term “first pivot point” in claims for exercise apparatus is not expression of location, since claims include extension arms, and use of terms “first pivot point” and “second pivot point” distinguishes pivot point on “first extension arm” from that on “second extension arm” without suggesting where on extension arm pivot points are located.

*Free Motion Fitness, Inc. v. Cybex International, Inc.*

76 U.S.P.Q.2d 1432 (Fed. Cir. 2005)

Decided September 16, 2005

**I. Facts**

Free Motion Fitness sells exercise machines and is the assignee of the 6,238,323 patent (hereinafter “the ‘323 patent”) and the 6,458,061 patent (hereinafter “the ‘061 patent”). The patents are directed to a resistance system with arms that can pivot in a plane like the arm of a slot machine. The ‘061 patent is a continuation of the ‘323 patent and the court focuses on claim 1 of the ‘061 patent as being representative of the claims of both patents.<sup>1</sup>

Cybex and Nautilus sell machines that allegedly infringe the Free Motion patents. The Cybex and Nautilus machines, however, have arms that can pivot in two planes. The arms of the Cybex machine are capable of pivoting like a doorknob at the pivot point nearest the resistance assembly and in a plane like the arm of a slot machine at the next pivot point. The Cybex machine also uses two cables to link the resistance assembly to the arms, rather than one, as in the preferred embodiment of the Free Motion patents. The arms of the Nautilus machine can pivot like a door at the pivot point nearest the resistance assembly and in a plane like the arm of a slot machine at the next pivot point.

Free Motion filed suit against Cybex and Nautilus for infringement of the claims of the ‘323 patent in different complaints. Free Motion amended its complaints to include infringement of the claims of the ‘061 patent and the district court consolidated the two cases. The district court construed various claim terms and granted partial summary judgment of non-infringement of claim 1 of the ‘061 patent based upon its claim construction. On motion by the defendants, the

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<sup>1</sup> Independent claim 1 of the ‘061 patent is set forth below with emphasis added to the claim terms in dispute:

1. An exercise apparatus, comprising:
  - a resistance assembly;
    - a cable linking a first extension arm and a second arm to the resistance assembly, wherein the cable includes a first strand and a second strand;*
    - the first extension arm includes a first end pivotally supported adjacent the resistance assembly at a first pivot point rotating about a first axis and a free second end from which the first strand of the cable extends for engagement by a user, the first end of the first extension arm further including a pulley having an axis of rotation offset from the first pivot point and rotating about an axis substantially parallel to the first axis;*
    - a second extension arm includes a first end pivotally supported adjacent the resistance assembly at a second pivot point rotating about a second axis and a free second end from which the first strand of the cable extends for engagement by the user, the first end of the second extension arm further including a pulley having an axis of rotation offset from the second pivot point and rotating about an axis substantially parallel to the second axis.*

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district court later granted summary judgment finding that all claims of the '323 and '061 patents were not literally infringed. Additionally, the district court ruled that Free Motion was estopped from asserting infringement based on equivalents due to an amendment made during prosecution. Free Motion appealed the decision of the district court.

## II. Issues

- A. Did the district court properly interpret the claim terms (1) “first,” (2) “adjacent,” (3) and “a cable linking”?
- B. Did the district court err in applying estoppel precluding Free Motion from asserting infringement based on the doctrine of equivalents?

## III. Discussion

- A. No.

(1) “First”-- The district court construed “first pivot point” as an expression of location. Specifically, the “first pivot point” is chronologically the “first” point that pivots on the extension arm. Thus, according to the district court, “first pivot point” means the pivot point spatially nearest the resistance assembly.

The majority disagreed citing *3M Innovative Props. Co. v. Avery Denison Corp.* for the proposition that “the use of the terms ‘first’ and ‘second’ is a common patent law convention to distinguish between repeated instances of an element or a limitation.” The majority construed the word “first,” therefore, as associating the “first pivot point” with the “first extension arm” and not as denoting spatial location.

*Dissent:* In a dissenting opinion, Judge Prost agreed with the construction given by the district court. With respect to the term “first pivot point,” Prost stated that the majority was misled by Free Motion’s characterization of district court’s construction. Prost suggests that the district court understood that the term “first” associates the pivot point with the first arm and concluded, based on the context of the claim and the written description, that the position of the first and second pivot points was limited. Specifically, the specification places the “first pivot point” where the first end of the first extension arm is “pivotally supported adjacent the resistance assembly.” Thus, Prost explains, where there are multiple pivot points, only the pivot point nearest the resistance assembly can pivotally support the entire arm.

(2) “Adjacent” -- The district court used a dictionary to construe “adjacent” to mean “that objects may or may not be in contact, but are not adjacent to each other where there is another object between them.” The majority discussed *Phillips v. AWH Corp.* noting that there was no suggestion that intrinsic evidence defined “adjacent” or that the term had specialized meaning in the art and that in such instances dictionaries may be used to assist in understanding the commonly understood meaning of the terms. Under *Phillips*, reliance on dictionaries must accord with the intrinsic evidence and that terms should be given their full range of ordinary meaning. Additionally, the majority explained that the full range of meaning did not presumptively mean the broadest definition, but rather the intrinsic record should be scrutinized to determine the most appropriate definition.

In consulting the dictionary, the majority found two possible definitions. The first definition is “not distant” and the second definition is the definition used by the district court. The majority, stated that the specification was most consistent with “not distant” because nothing

in the intrinsic record suggested anything with concern to an intervening pivot point, thus precluding use of the narrower definition used by the district court.

*Dissent:* Judge Prost explained that she found nothing that supports a meaning as broad as “not distant” and that the narrower definition appears more consistent. She criticizes the majority, citing *Phillips*, for apparently starting with the broadest definition and whittling it down with the specification, instead of determining whether the specification discloses anything broader than the narrower definition.

(3) “A Cable Linking” -- The district court held the term “a cable linking” is limited to only a single cable based on the patents’ numerous references to a single cable and that if multiple cables were intended, this would have been expressly indicated in the patent specification. The majority disagreed, citing Cybex’s admission during oral argument that the term “a” suggests that the claim term “a cable linking” normally should be interpreted to mean one or more cables. Additionally, the majority cited *KCJ Corp v. Kenetic Concepts, Inc.* and *Abtox, Inc. v. Exitron Corp.* for the patent law convention of construing the terms “a,” “an,” and “the” as meaning “one or more” when used in conjunction with the transition phrase “comprising,” and that this convention is overcome only when the claim is specific as to the number of elements or when the patentee evinces a clear intent to limit the article.

In addition to patent law convention, the majority stated the doctrine of claim differentiation militates in favor of a construction that does not limit claim 1 to a single cable. The doctrine of claim differentiation creates a presumption that each claim has a different scope and the difference in meaning and scope between claims is presumed to be significant to the extent that the absence of such difference in meaning and scope would make a claim superfluous. Because dependent claims contained the limitation of one cable, claim 1 is not limited to only one cable.

*Dissent:* Judge Prost noted that the majority relies on Cybex’s admission that “a” or “an” typically means “one or more” in an open-ended “comprising” claim, but that Cybex did not suggest that the term “a cable linking” should be interpreted to mean “one or more cables linking.” Prost explained the written description only describes embodiments having “a single cable.”

- B. Yes. The district court held that Free Motion was estopped from claiming infringement under the doctrine of equivalents because the accused device had undesirable features found in the prior art in addition to the claimed extension arms with axes of rotation substantially parallel to the pulleys. This conclusion was reached because of amendments made during prosecution of the ‘323 patent. Specifically, Free Motion overcame a prior art rejection by amending the claims to include the limitation “rotating about an axis substantially parallel to the second axis” and made arguments focused on the amendments.

The majority, citing *Crystal Semiconductor Corp. v. Tritech Microelectronics Int’l, Inc.*, stated that it is a basic principal of patent law that a party may not avoid infringement of a patent claim using an open transitional phrase, such as “comprising,” by adding additional unclaimed elements. The court stated that the scope of a claim is not limited to exclude undesirable but unclaimed features even if the undesirability of that feature was the subject of an amendment made during prosecution, absent a clear and unmistakable disclaimer of claim scope. The court stated there was no such disclaimer here.

*Dissent:* Judge Prost agreed with the district court that Free Motion is estopped from asserting that perpendicular orientation of the axes of rotation in the accused devices is equivalent to the substantially parallel element of the patents in suit.