

United States District Court,
S.D. New York.

SCHINDLER ELEVATOR CORP., and Inventio Ag,
Plaintiffs.

v.

OTIS ELEVATOR COMPANY,
Defendant.

No. 06-CV-05377CMTHK

April 4, 2008.

Background: Holder of patent for automatic elevator destination dispatching system brought infringement action against competitor. Parties sought claim construction.

Holdings: The District Court, McMahon, J., held that:

- (1) "information transmitter" meant a device that communicates with a recognition device via electromagnetic waves;
- (2) "access area" meant the floor on which the passenger enters the elevator;
- (3) "to actuate" meant to activate;
- (4) "input device" meant a keyboard or keypad or similar equipment used to transfer data and instructions into a data processing system.

Claims construed.

5,689,094. Construed.

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Memorandum Decision and Order on Claim Construction (Markman Decision)

The Court, for its construction of the disputed claim terms in the patent in suit, No. 5,689,094.

Background

The '094 patent relates to a specific destination-based method for calling and dispatching an elevator. In a conventional elevator system, passengers call the elevator by pressing an "up" or "down" button in the elevator lobby and then designate their desired floor using buttons located in the elevator car. With destination dispatching, passengers specify their desired floor in the lobby before entering the elevator. The passengers are then directed to elevators that are pre-assigned to bring them to their destination. (The Patent, Littmann Aff. Ex. 1 at Abstract.)

The applicants on the '094 patent do not claim to have invented destination dispatching, as it has been around for a long time. (Littmann Aff. Ex. 1 at col. 1:17-57.) The '094 patent is instead directed to a particular type of destination dispatching system, in which the passenger's desired destination is "communicated automatically to the elevator control ... without any personal action being required by the passenger." (Id. at col. 2:49-54.)

In the earlier methods of destination dispatching, first keypads, then more sophisticated devices, such as transmitters, were used to send a passenger's desired floor to the elevator control mechanism. However, according to the patentee, there was a problem with prior methods: they needed to "be taken in hand," which "is impractical when a passenger has no free hand to operate the transmitter." (Id. at col. 1:41-44.) The '094 patent, by contrast, teaches a destination dispatching system in which the passenger's desired floor is entered using an "information transmitter" that is carried on the passenger and a "recognition device" that is "mounted in the access area in the vicinity of the elevators." (Id. at col. 6:24-25, col. 8:3-4.) The information transmitter is "actuated" when it comes within range of the recognition device. (Id. at col. 3:34-37, col. 6:24-27, col. 8:5-7.) It then transmits the information required to make an elevator call, which is read by the recognition device and passed on to the elevator control system. (Id. at Abstract, col. 6:31-36, col. 8:3-9.) The destination information was pre-programmed into the information transmitter, so the system could operate "without any personal action being required by the passenger." (Id. at col. 2:53-54.) With the system described by the '094 patent, "[t]he entire operation of the call entry takes place hands-free, contactless and independent of the orientation of information transmitter 1, which also means that information transmitter 1 need not be visible for the identification thereof by recognition device 5." (Id. at col. 4:27-31.)

Radio Frequency Identification

The '094 patent explains that the "hands-free" communication between the "information transmitter" and "recognition device" is achieved "via radio frequencies." (Id. at Abstract, col. 4:2-4.) Systems that use radio frequencies to communicate wirelessly in this fashion are called Radio Frequency Identification ("RFID") systems.

The '094 patent teaches the use of an RFID system where the communication between the information transmitter and recognition device occurs using "radio frequencies, preferably in the range of 900 megahertz to 6 gigahertz." (Id. at col. 4:3-4.) FN1

FN1. Otis' moving brief contains a long digression on RFID technology. It explains (using extrinsic evidence) that RFID systems can differ significantly in how they operate. RFID systems rely on different physical mechanisms for communicating between the card and card reader, they operate at different radio frequencies, and they vary in their effective range. (Def. Br. at 22, Dkt. # 51.) To transmit data from a card or tag to a reader, RFID systems can use either magnetic-field coupling or electromagnetic interrogation (called "backscatter"). The principal distinction between these two technologies is the range at which they operate. Magnetic-field coupling is used for short-range systems in which the card and card reader communicate only when they are placed in close proximity to one another, typically within a few inches. Longer range backscatter RFID systems, and in particular those that do not require the user to place the RFID card or tag next to the card reader, communicate using electromagnetic waves. (*Id.* at 22-23.) The frequency mentioned in the patent-900 megahertz to 6 gigahertz-is the frequency range used for long-range, backscatter-type electromagnetic systems. (Littmann Aff. Ex. 7 at 23.) Magnetic-field coupling systems-those that can transmit only over a shorter range-typically operate in the range of 3 to 30 megahertz. (*Id.* at 13.) All of this is very interesting and may well be relevant at a later point in this litigation. It is unnecessary to the claim construction exercise.

The '094 Patent's Prosecution History

The '094 patent ultimately issued with 14 claims, two of which (claims 1 and 14) are independent claims. The patent issued only after the inventors made arguments to the PTO, including representations about the nature of the claimed invention, that are important in interpreting the scope of the claims.

The PTO initially rejected all the asserted claims of the '094 patent. (Littmann Aff. Ex. 8 at OTEXP000075.) Citing patents that taught the use of transmitting devices and cards to input a passenger's desired floor in a destination dispatching system (in particular, the Hayashi and Kamaike patents), the PTO concluded that it would be obvious for a person of ordinary skill in the art to use the claimed "information transmitter" and "recognition device" for that purpose. (*Id.* at OTEXP000075-78.) The Patent Examiner therefore rejected the initial application for obviousness, pursuant to 35 U.S.C. s. 103.FN2

FN2. The Examiner also rejected the patent under 35 U.S.C. s. 112 for indefiniteness.

The applicants responded to this rejection by amending the claims and specifying that their invention was limited to a specific type of "information transmitter" and "recognition device" that had not been discussed in the prior art. (*Id.* at OTEXP000087.) The applicants' argument includes the following representations about the scope of the claimed invention:

Because the information transmitter of the present invention is not equipped with user operable keys, it is not necessary that the information transmitter be in the elevator user's hands to select the desired floor. Thus, the call commands are "pre-programmed to occur automatically, contactlessly, and independently of the orientation of the information transmitter." (*Id.*)

* * * * *

Because neither applied document of record discloses or suggests, *inter alia*, the unique hands-free, automatic, and contactless elevator call system recited in the pending claims via a recognition device that

actuates a transmitting device carried by the elevator user that transmits data to be received by a unit of the recognition device and forwarded to the control device through a storage device, Applicants respectfully submit that no proper combination of the HAYASHI et al. and KAMAIKE can even arguably render obvious the unique combination of features recited in at least independent claims 1 and 14, as now amended. (*Id.* at OTEXP000089-90.)

* * * * *

Because none of the applied documents of record disclose or suggest actuating of the transmitting device by the recognition device, recited in the combination of features in at least independent claim 1, to enable truly hands-free operation of elevator calls, Applicants respectfully submit that no proper combination of the applied documents of record can even arguably render obvious the present invention as recited in claim 7. (*Id.* at OTEXP000092.)

The PTO issued the '094 patent as amended, but only after the inventors acknowledged that the claims were limited to systems in which the "information transmitter" is "actuated" and "independently read" by the "recognition device." (*Id.* at OTEXP000096.) The applicants further and expressly represented that the claims were limited to systems that allow "truly hands-free operation," in which the elevator call is placed "automatically." (*Id.* at OTEXP000092, OTEXP000087.)

Legal Standards

[1] Claim construction presents a question of law for the Court to decide. In construing the claims, the Court should look to the intrinsic evidence, including the claim language itself, the description of the invention provided in the patent specification and statements made by the applicants during the prosecution of the patent before the PTO. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1581-85 (Fed.Cir.1996); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995).

[2] [3] The patent specification and prosecution history provide the best evidence of the meaning of the claims. The patent specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed.Cir.2005) (*en banc*) (citing *Vitronics*, 90 F.3d at 1582); *see On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1337-38 (Fed.Cir.), *cert. denied*, 549 U.S. 1054, 127 S.Ct. 683, 166 L.Ed.2d 516 (2006) ("[T]he court in *Phillips*, resolving conflict, stressed the dominance of the specification in understanding the scope and defining the limits of the terms used in the claim.").

[4] [5] In addition, the prosecution history "contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims." *Vitronics*, 90 F.3d at 1582. "[T]he public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent." *Springs Window Fashions LP v. Novo Industries LP*, 323 F.3d 989, 995 (Fed.Cir.2003).

[6] Competitors are entitled to rely on the public record of a patent to determine the scope of its claims. *Vitronics*, 90 F.3d at 1583. Thus, where the public record of the patent unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence, such as expert testimony, is unwarranted:

The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the

patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public record to be altered or changed by extrinsic evidence introduced at trial, such as expert testimony, would make this right meaningless.

Id.; *see also* Markman v. Westview Instruments. Inc., 52 F.3d 967, 978-79 (Fed.Cir.1995).

[7] The Court may consider dictionary definitions "to assist in understanding the commonly understood meaning of words." Phillips, 415 F.3d at 1322. However, reference to dictionary definitions is only appropriate "so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." Id. at 1322-23 (citing Vitronics, 90 F.3d at 1584 n. 6). The Federal Circuit has warned that "heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." Id. at 1312-14.

It is this court's practice to hold a first claim construction proceeding based solely on intrinsic evidence, and only to permit the parties to submit extrinsic evidence if there are claims that cannot be construed from the intrinsic evidence. The instant motion was made and briefed while the case was being managed by The Hon. Richard Conway Casey, who did not follow my practice, so the papers submitted to the court contain considerable extrinsic evidence, and the briefs make reference to that evidence. In keeping with my practice, the court has gone through the terms and made a first pass at defining them without considering anything other than the intrinsic evidence-the claim language itself, the description of the invention provided in the patent specification and statements made by the applicants during the prosecution of the patent before the PTO. I was able to construe all of the disputed terms without reference to any extrinsic evidence. I did not, therefore, consider any of the testimony that was submitted by either side, whether from the inventor or from experts. This accords with arguments made by both sides, who urge the use of intrinsic evidence only.

Claim Construction

(1) "Information Transmitter" and "Recognition Device"

[8] [9] Independent claims 1 and 14 require a "recognition device" that is used for "recognizing elevator calls" placed by "an information transmitter carried by an elevator user."

The terms "information transmitter" and "recognition device" cannot be interpreted in a vacuum. They must be read in light of the description of the invention provided in the specification. Phillips, *supra*, 415 F.3d at 1315 ("claims 'must be read in view of the specification of which they are a part.'" (quoting Markman, *supra*, 52 F.3d at 979)).

A. Specification (Intrinsic Evidence)

The elevator system that the applicants on the '094 patent claim to have invented is outlined primarily in columns 3 and 4 of the specification and further depicted in Figure 1.

The elevator passenger carries an "information transmitter" that has been pre-programmed with data that either indicates the passenger's default destination floor or provides information from which the destination floor can be determined. (Littmann Aff. Ex. 1 at col. 3:38-44.) This "information transmitter" communicates

with the "recognition device," which is a reader located in the vicinity of the elevators. (*Id.* at 3:61-67.) The two devices communicate automatically, "without any personal action being required by the passenger." (*Id.* at col. 2:53-54.)

The information transmitter and recognition device communicate using "radio frequencies," meaning they rely on an RFID communication scheme. (*Id.* at Abstract, col. 4:2-3.) Through this communication the elevator control determines the passenger's desired floor and calls an elevator before the passenger enters any elevator car. (*Id.* at col. 4:12-15.)

The '094 patent specification describes the preferred embodiment of these critically important devices. The information transmitter is "carried by an elevator user" and "consists mainly of an aerial or antenna 2 and an electronic transmitter part 3." (*Id.* at col. 3:26-28.) The patent contemplates attaching the transmitter to other devices (*e.g.*, a shopping cart), but in the primary configuration described in the patent the "information transmitter" is an encoded card. (*Id.* at 3:24-26.) The information transmitter does not constantly transmit information; rather, it remains in an "at rest mode" until it is actuated by the recognition device, using "an electromagnetic field" that is radiated by the recognition device. (*Id.* at col. 3:36-38.)

The recognition device "monitors a specific building part or portion in the access or approach to an elevator installation" and "independently searches the appropriate building part for information transmitters." (*Id.* at col. 3:61-67.) Because the recognition device "monitors" the access area or approach to the elevators and "independently searches" for information transmitters, passengers do not have to stand directly in front of the recognition device, or take any other affirmative action, in order to call an elevator. The process is entirely automatic. (*Id.* at col. 2:49-55, col. 5:48-51.)

According to the patent, "The advantages achieved by the invention reside in the fact that the desired journey destination is communicated automatically to the elevator control by the information transmitters carried by the elevator users or by the recognition of features of the elevator users, *without any personal action being required by the passenger.*" (*Id.* at col. 2:49-55 (emphasis added).) The passenger does not need to enter his destination into the information transmitter, because it is pre-programmed with that information. Since the passenger need do nothing to tell the elevator where he wants to go, he does not even need to be holding the transmitter in his hand. Moreover, because the recognition device searches for information transmitters, actuates any that come within its effective range, and automatically reads the pre-programmed data, the passenger's destination can be determined, and the elevator procured, without the passenger having to stand directly in front of recognition device. (*Id.* at col. 5:48-51.)

The electromagnetic RFID system described in the '094 patent operates at some distance from the elevators themselves, allowing the readers to monitor the approach or access area adjacent to the elevators. (*Id.* at col. 3:61-67.) Thus, the passengers do not have to do anything other than walk within the effective range of the card reader in order for the system to determine their desired floor and call an elevator.

The '094 patent thus describes a system in which the elevator call is made "automatically." (*Id.* at Abstract, col. 2:49-55.) The elevator passenger carries the information transmitter, but the communication between that transmitter and the elevator system takes place "hands-free, contactless, and independent of the orientation of [the] information transmitter" and "without the passenger having to stand directly in front of the recognition device." (*Id.* at col. 4:27-29, col. 5:50-51.)

B. Prosecution History (Intrinsic Evidence)

[10] [11] The prosecution history of a patent "limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution." *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 988 (Fed.Cir.1988) (citation omitted). Among other things, "[a] patentee may not proffer an interpretation for the purposes of litigation that would alter the indisputable public record." *Vitronics*, 90 F.3d at 1582 (citation omitted).

The applicants originally claimed destination dispatching systems that rely on a wide range of information transmitters and recognition devices. The PTO rejected those claims. The applicants responded by amending and narrowing their claims. In particular, the applicants limited their claimed invention to the type of "automatic" and "hands-free" RFID system described in the specification.

Following the initial rejection of the claims, the applicants amended the independent claims to require the type of information transmitters and recognition devices in which the recognition device "actuates the information transmitter." (Littmann Aff. Ex. 8 at OTEXP000087.) In explaining this amendment, and in distinguishing the '094 patent from the prior art, the applicants represented that their claims were limited to systems in which the communication between the information transmitter and recognition device takes place "automatically, contactlessly, and independently of the orientation of the information transmitter." (*Id.*) They further explained, during the prosecution of the patent, that the claims were limited to systems in which "it is not necessary that the information transmitter be in the elevator user's hands." (*Id.*) The applicants thus argued that the '094 patent disclosed a "unique hands-free, automatic, and contactless elevator call system." (*Id.* at OTEXP000089.)

According to the applicants, these features are what distinguished the transmitter and reader used in the '094 patent from the systems described in the prior art, such as the Begle patent. The Begle patent refers to a "portable transmitter-receiver unit" where "commands are input ... by way of a ten-key keyboard." (Littmann Aff. Ex. 4 at Abstract.) As explained in the '094 patent, the Begle transmitter "must, in every instance, be taken in hand." (Littmann Aff. Ex. at col. 1:41-42.) The transmitter described in the '094 patent, on the other hand, operates "without any personal action being required by the passenger." (*Id.* at col. 2:53-54.) Thus, in arguing for the patentability of their invention, the applicants stressed that no other patents "suggest actuation of the transmitting device by the recognition device ... to enable truly hands-free operation of elevator calls." (Littmann Aff. Ex. 8 at OTEXP000092.)

With these representations and arguments, the applicants specifically disavowed coverage for a broad array of technologies that existed or were obvious in light of the prior art. They limited their claims to systems that operate "automatically" and allow "truly hands-free" operation by the elevator passenger.

C. Construction

Otis asks that the court construe the terms "information transmitter" and "reception device" to limit them in several quite specific ways: the information transmitter is limited to one that does not need to be "taken in hand" in order to work; the system cannot require any "personal action" on the part of the elevator passenger in order to transmit an elevator call; and the terms cannot include recognition devices that require the passenger to "stand directly in front of" the recognition device in order for the elevator call to be made. (Littmann Aff. Ex. 1 at col. 1:41, col. 2:53-54, col. 5:50-51; Littmann Aff. Ex. 8 at OTEXP000092.)

Schindler offers a much broader and more generic interpretation of the terms "recognition device" and "information transmitter," defining them in ways that would, if read broadly, sweep in many kinds of

devices, including the prior art devices that prompted the inventors to amend their claims and limit their invention to "hands-free" devices. It asks the court to define "information transmitter" as "equipment that sends data which has been recorded, classified, organized, related, or interpreted within a framework so that meaning emerges by wire, radio, etc.;" and a "recognition device" as "equipment that identifies or associates an input with one of a set of possible known alternatives."

[12] The problem with Schindler's proposed definitions is that plaintiff seeks an interpretation of the claims that would recapture subject matter that was surrendered during the prosecution of the patent. Any such construction is impermissible. *Springs Window*, 323 F.3d at 995; *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1313 (Fed.Cir.2002) (" '[T]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution.' " (quoting *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed.Cir.1995))). This is a well-settled rule of claim construction, one the court has applied in prior cases. *E.g.*, *Joao v. Sleepy Hollow Bank*, 418 F.Supp.2d 578, 581 (S.D.N.Y.2006); *Advanced Card Techs., LLC. v. Versatile Card Tech., Inc.*, 410 F.Supp.2d 158, 163 (S.D.N.Y.2006); *British Telecomms. PLC v. Prodigy Commc'ns Corp.*, 189 F.Supp.2d 101, 107 (S.D.N.Y.2002). Schindler's contention that construing the patent in this manner constitutes an incorrect application of the doctrine of patent estoppel is wrong.

The arguments and representations that the inventors made in order to secure their patent are binding and must be given full effect by the Court in interpreting the claims. Based on the arguments that the applicants made to distinguish their claimed invention from the prior art, the "recognition device" must be limited to a device that first actuates-and then reads data transmitted by-the information transmitter, and "information transmitter" must be limited to one that communicates information to a recognition device after being actuated by that recognition device.

Otis asks the Court to incorporate into the definition of "recognition device" two additional concepts: no personal action by the passenger, and not having to stand in front of the device in order to have data read by the device.

After carefully reviewing the patent, it seems to the Court that the notion of "no personal action by the passenger" should be incorporated into both definitions. It belongs in the definition of "information transmitter" because the information transmitted is the item that the passenger does not need to take in his hand. Therefore, I will define "*information transmitter*" as "*a device that communicates with a recognition device via electromagnetic waves, after being actuated by that recognition device, without requiring any sort of personal action by the passenger.*"

Of course, the recognition device must also "actuate" the information transmitter without any activity by the passenger. Therefore, I will define "*recognition device*" as "*a device that actuates and reads data transmitted by an information transmitter without requiring any sort of personal action by the passenger.*"

I decline to incorporate the phrase "without the passenger having to stand in front of the device" into the definitions of either of these terms. Standing in front of the recognition device is a "personal action" by the passenger, just as inputting data into the information transmitter by hand is a "personal action" by the passenger. There is no need to specify any particular kind of "personal action" that would be "required by the passenger" to make the patent work, because "any sort" of personal action must be unnecessary. In fact, specifying one or two types of "personal action by the passenger" in the definition of these claim terms might be misunderstood to exclude other, unspecified types of "personal action." The Court's definition of

the terms rules out, not just standing in front of the recognition device, or inputting data into the information transmitter by hand, but any and all types of personal action by the passenger. All the passenger need do is come within the area that is monitored by the recognition device (also referred to as the effective range of the recognition device); at that point, his transmitter will be activated automatically, and an elevator that has been programmed to take him to his default floor will be called.

I have included reference to electromagnetic waves in the definition of the information transmitter, because all disclosed embodiments of the claimed invention communicate using RFID technology.

(2) "Entry Location/Access Area/Access Area in the Vicinity Of"

[13] [14] [15] Plaintiff is unquestionably correct in asserting that the words "entry location" mean "access area." Prior to the issuance of the patent, the application was subject to an Examiner's Amendment, dated April 23, 1997, in which the Examiner-following the receipt of telephonic authorization from one Robert Mueller (the attorney who prosecuted the patent)-announced "The application has been amended as follows," and substituted the words "access area" for "entry location." (Littmann Aff. Ex. 8 at OTEXP000097.) The Notice of Allowability, signed by the primary Examiner, includes the Examiner's Amendment. This Examiner's use of the words, "The application *has been amended* ..." absolutely preclude defendant's argument that the Examiner was simply making a suggestion.

It appears that the patent issued from the Patent Office without this change having been made in the published text of the patent. That was clearly an error on the part of some clerk in the Patent Office. It does not mean, however, that the application was not amended prior to approval. No effort seems to have been made to correct what should have been an obvious error, and plaintiff contends that the mistake is so minor that no Certification of Correction was necessary. I do not necessarily agree with plaintiff, but it is of no moment, since it is clear that this Court has the authority to make the necessary correction, because (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification; and (2) the prosecution history does not suggest a different interpretation of the claim. *Novo Industries. L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed.Cir.2003). Therefore, claims 1 and 14 in suit are deemed amended to substitute the words "access area" for the words "entry location," as required by the Patent Examiner prior to approval.

The amendment does not dispose of the definitional issue, however, because "access area" is not a self-defining term. Plaintiff does not propose any further definition. Defendant would have the term "entry area" (and, by extrapolation, the term "access area") defined as "the floor on which the elevator call is entered."

Both claims 1 and 14 say that the "access area" is initialized as "a starting floor of the journey." The "starting floor of a journey" is a self-defining term-it is the floor on which the passenger gets into the elevator. So the access area must at the very least be *on* the floor where the passenger is going to enter the elevator. The fact that both claims 1 and 14 state that the elevator calls that are recognized by the recognition device are entered at the "access area" necessarily means that the "access area" is located on the "starting floor of the journey" - *i.e.*, the floor on which the passenger enters the elevator. I therefore define "*access area*," as "*the floor on which the passenger enters the elevator.*"

Claim 1 also refers to the location of the recognition device as "in the access area in the vicinity of the elevators and spatially located away from the elevator doors." The parties differ in their definitions of the phrase "access area in the vicinity of," though why they should is a mystery. The term "in the vicinity of" is

self-defining; in normal and natural English, the phrase means "near or close to" or "in the area of." The Court need not refer to any dictionary or other source to reach that conclusion. Thus, the recognition device must be mounted somewhere on the floor where the passenger enters the elevator, near or close to the elevators, but not on the elevator doors themselves.

Defendant's proposal that I define "in the vicinity of" to mean "a few steps away from" is far too restrictive. The term "few" is vague, but its use would appear to preclude mounting the recognition device more than, say, five or six steps away from the elevators on the starting floor. Nothing in the text of the patent, the specifications or the prosecution history requires that the recognition device has to be mounted just "a few steps away from" the elevators for the invention to work, or equates "in the vicinity" with a "few" steps. The fact that the preferred embodiment places the recognition devices "within a few steps of" the elevators does not so restrict the claim term itself; the Federal Circuit has repeatedly warned courts construing claims not to confine the claims to the preferred embodiment, most recently in *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 807 (Fed.Cir.2007). The "few steps" restriction might well fly in the face of another disclosed embodiment of the invention, which involves mounting the recognition device at the locked door of a building (Littmann Aff. Ex. 1, col. 5 at 31-32), with, presumably, the elevator located inside the building.

Of course, the fact that "in the vicinity" denotes "near or close to" means that the access area cannot be too far away from the elevator-but there is no requirement that it be practically on top of the elevators, as Otis would have me conclude.

I thus conclude that the term "*entry location*" means "*access area*," and "*access area in the vicinity of*" means "*the portion of the floor on which the passenger enters the elevator that is located close to the elevator.*"

(3) "Actuate" (Actuating)

[16] When the information transmitter is "actuated," it ceases to be in an "at rest" mode (a term that the parties agree means "standby mode") and begins transmitting data to the recognition device that actuates it. Therefore, it should be obvious that the term "*to actuate*" means "*to activate*"-specifically, "*to activate [the information transmitter] from an at rest (standby) mode to data transmitting mode.*" Defendant's use of the phrase "to turn on" is not inapt, but "activate" is preferable.

Defendant wants to add to the definition of "actuate" a number of limitations, to make it clear that the actuation must be hands-free, automatic, contactless and independent of the orientation of the information transmitter. As I have already held, plaintiff has disclaimed anything that requires any action of any sort on the part of the passenger, and I have included that concept in the definition of "information transmitter" and "recognition device." There is no need to add this concept to the definition of "actuate" as well.

(4) "Independently Reads"

[17] The phrase "independently reads" appears in the portion of claims 1 and 14 that discuss the "recognition device." Specifically, the claims say a "recognition device ... actuating the information transmitter and comprising a unit that independently reads data transmitted from the information transmitter carried by the elevator user and a storage device coupled between the unit and the control device." (Littmann Aff. Ex. 1 at col. 6:24-30, col. 8:3-9.)

To "read data" means to acquire information, usually from some sort of storage in a computer. MCGRAW

HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS 1756 (6th ed.2002). It is obvious, both from the claim language and from the nature of the invention, that this is what is meant by "reading data:" indeed, the meaning of the term is so self-evident to defendant that Otis defines "reads [data]" as "reads!"

The trickier question is, what is meant by reading data "independently," as required by the '094 patent, in which the recognition device (the card reader) must read the information sent from the information transmitter (the card) "independently." Schindler would have the court define that word as "without requiring or relying on something else," while (as might be expected), Otis wants me to define it (and every other term) as "hands-free, automatic, contactless and independent of the orientation of the information transmitter."

The only other place in the patent where the word "independently" is used is in the description of the preferred embodiment, where the patentee states that the "recognition device" "independently searches the appropriate building for information transmitters" (Littmann Aff. Ex. 1 at col. 3:61-65). In that context, "independently" seems to mean "automatically and without assistance," as in, "the recognition device at all times, and without the need for anyone to tell it to do so, is on the look-out for information transmitters that it can actuate and read data transmissions from." "Independently" is used no differently in the disputed term "independently reads." Therefore, "*independently reads*" will be defined as "*acquires information automatically, without relying on any sort of outside assistance.*"

(5) "Storage Device" and "Coupled Between"

[18] Independent claims 1 and 14 both require "a storage device coupled between the unit [recognition device] and the control device." I accept a slightly modified version of Otis' proposed definition of the term "*storage device*" and define it as "*a computer memory or similar device that stores data in electronic format.*" According to the patent, the storage device is used to maintain computer-readable data about various things, including specifically the floor to which an elevator passenger will want to travel and information about the passenger ("individual features of the elevator user"), information that is used in automatically assigning the desired destination when that passenger's information transmitter is read. (Littmann Aff. Ex. 1 at col. 6:31-35.) Based on this description, the "storage device" should be interpreted as a computer memory or similar device that stores data. I omit the words "destination floor," which Otis inserted just before the word "data" in its proposed definition, because claim 1 clearly states that the storage device can store other types of data as well—notably "individual features of the elevator user." (*Id.* at col. 6:35.) Otis' proposed restriction on the type of data the storage device can store would read an entire phrase out of the claim.

[19] I also accept a slightly modified version of Otis' proposed definition of the phrase "*coupled between,*" which I define as "*connected in such a way that the storage device is linked directly to both the recognition device and the control device and can serve as a conduit through which data can pass from one to the other.*" The word "coupled" fairly implies a direct linkage: the storage device is directly connected to both the recognition device and the control device, rather than connecting to them through intermediary devices. The Court's use of the phrase "a conduit through which data can pass from one to the other" to define the word "between" should give Otis no problem, since it is taken from Otis' own argument. Defendant notes that, in the specification, the recognition device sends data to the control device "via" the storage device (*id.* at col. 2:9-10, col. 2:56-58, col. 4:4-7), and opines that the storage device "serves as a conduit for information to pass between the [recognition device and the control device]." (Def. Mem. at 21, Dkt. # 51.)

Plaintiff proposes a far more cumbersome definition: "connected by the common action of or linked as by magnetic induction and jointly engaging or serving to join or electronically connected so that signal will pass from one to the other." (Pl. Mem. at 21, Dkt. # 55.) When parsed, it becomes clear that plaintiff's proposed definition says pretty much the same thing as defendant's, only using more and bigger words, some of which would themselves require further definition. The point of construing claims is to make them comprehensible to the trier of fact. Plaintiff's unwieldy construction of a relatively straightforward and easily understood phrase would be singularly unhelpful to a lay jury that was trying to understand the nature and function of the storage device-which is the aspect of the invention to which "coupled between" is relevant. The fact that plaintiff cobbled the definition together from various dictionary definitions of "couple" and other extrinsic sources, while defendant's proposed definition (with the Court's slight amendment) flows naturally and logically from the claim language and the specifications, argues in favor of the Court's much simpler and more straightforward approach to the term.

(6) "Input Device"

[20] The term "*input device*" is interpreted to mean "*a keyboard or keypad or similar equipment used to transfer data and instructions into a data processing system.*" The phrase lends itself to such a straightforward and easily understood construction.

There is no need to add to the definition of "input device" the phrase "that is used to cancel a previously-entered destination and to choose a new one," as defendant proposes, because that simply duplicates other language appearing in the claim itself. Claim 2 expressly states that the input device must be used "for changing the proposed destination floor," so adding those words to the definition of "input device" is entirely unnecessary. (Littmann Aff. Ex. 1 at col. 6:38.) Moreover, nothing in the patent file suggests that the "input device" need be restricted to a single use-all the patent requires is that it be capable of use for the purpose of changing the passenger's destination floor. Nor is there any need to include in the definition of the term "input device" the concept of the device's location relative to the recognition device, again because the claim itself limits the location of the input device to the "region of the recognition device." (*Id.* at col. 6:39-40.)

(7) "Without Physical Contact"

[21] Dependent claim 6 covers, "The elevator installation of claim 1, wherein the recognition device operates without physical contact with the elevator installation." (*Id.* at col. 6:47-49.) Both parties agree that the phrase "*without physical contact*" encompasses the idea of "not touching." The question is whether it encompasses anything more. Plaintiff asks that the term be defined as "without *direct* touching," while defendant seeks a definition that precludes indirect as well as direct touching ("without touching or connection by wiring").

Plaintiff's definition is, in the context of the patent, too narrow. I agree with Otis that Schindler's argument for its definition-that the recognition device need not be mounted or positioned so as to touch the elevator installation directly-appears to render Dependent Claim 6 superfluous in light of Independent Claim 1, which requires the recognition device to be located "in the vicinity of" (near or close to) the elevator, but "spatially located away from the elevator doors." Otis* proposed definition, by contrast, gives meaning to the claims based on the specification. The preferred embodiment, as set forth in the specification, states that the recognition device passes the data "from information transmitter 1 into processing unit 9 *via a wire line.*" (*Id.* at col. 4:8-9 (emphasis added).) Dependent Claim 6 is a "further variation" on the invention-the only change being that the recognition device operates "without physical contact." Since the only "physical

contact" between the recognition device and the processing unit that is disclosed in the preferred embodiment is "a wire line," it stands to reason that the term "physical contact" must include indirect or connective contact through a tangible medium.

I therefore define the term "*without physical contact*" to mean "*without touching, either directly or through a tangible medium, such as a wire*"

(8) "Key Having A Code"

[22] Dependent Claim 7 covers, "The elevator installation of claim 1, wherein the recognition device reads a key having a code." (Id. at col. 6:50-51.) "Key having a code" should be interpreted to mean "a device configured to provide signals for communication to open a lock."

The definitions proposed by the parties appear closer than they are. Plaintiffs proposed definition ("a device to open a lock wherein the device is configured to provide signals for communication") and defendant's ("a device configured to provide signals for communication to open a lock on a door") use the same words, but their order is slightly different. Under plaintiffs construction, any sort of key ("a device to open a lock") can be configured with an information transmitter to send signals to an elevator. An example that occurs to the Court (though it is not an embodiment described in the patent) would be an automobile key that, when it comes into the effective range of the recognition device for an elevator in a multi-story garage, calls that elevator and is sent to the correct floor for parking. Defendant, by contrast, seeks to limit the type of "key" to a programmable card key that can be used to open a door.

Defendant urges that, in common parlance, a "key" is a device used to unlock a door. That is true, but incomplete. In common parlance, a "key" is a device used to unlock something that is locked. The thing to be unlocked could be a door, or a window, or an automobile, or a drawer, or a girl's diary.

It is true that the embodiment to which claim 7 is clearly directed (which can be found at column 5, lines 27-33 of the patent) involves the unlocking of a door:

A further variation consists in that information transmitter 1 is not carried along as separate card, but executed as coded key means. For example, in a residential or in an office building, the building key can be provided with information transmitter 1. Recognition device 5 is then mounted at the door lock so that elevator control 10 also receives the destination call upon the opening of the door.

As described in this embodiment, the "key" is a card of the type that can be "coded" so that it can be used by a passenger to open a "door lock;" one familiar example would be the card key that opens a hotel room door. Because it can be "coded," the key can also be programmed to transfer the destination call "upon the opening of the door." From this, defendant argues that the term "key" in claim 7 should be limited to the type of card key that is used to unlock a door.

However, nothing in the patent or the patent file suggests that the term "key having a code" should be interpreted in a manner that restricts it to the disclosed embodiment.

(9) "Through ... And To"

[23] Independent Claim 14 differs from the only other independent claim, claim 1, in its last limitation, which requires that "the recognition device transmit[] data *through* the storage device *and to* the control

device." (Littmann Aff. Ex. 1 at col. 8:10-11 (emphasis added).) Defendant urges that the phrase "through ... and to" should be interpreted to mean "in one side and out the other." Defendant's definition captures one facet of what it means to go "through" something, but there are equally common understandings of the phrase "go through" that appear far more pertinent to the patent in suit. For example, when electric current is said to travel "through" a cord, it means that the cord is the medium or way of transit-the cord is a conduit between the power source and the object being powered. Moreover, defendant's definition of "through ... and to" is limited to the "through" and entirely omits the concept of "to."

The clear and plain meaning of the term "through ... and to" as used in Independent Claim 14 is that the recognition device sends data to the control device by way of the storage device-that is, the data first arrives at the storage device and then is further transmitted on to the control device.

Nothing in this definition undercuts the fact that claim 14, like claim 1, requires the storage device to be "coupled between" the recognition device and the control device. Furthermore, Otis is correct that the phrase "through ... and to" describes the specific path that the data being transmitted must follow. This is consistent with the specification, which shows data from the recognition device being transmitted over a wire line from the recognition device, to the storage device, and on to the elevator control. (*Id.* at col. 4:7-12.) Indeed, the only difference between the two independent claims is the specification of a data path that includes both an intermediate destination (the storage device) and a final destination (the control device). The definition chosen by the Court more aptly captures this notion of an ordered pathway than does the phrase "in one side and out the other."

Conclusion

The claims having been construed, counsel are directed to attend a status conference on April 25, 2008, at 11:30 A.M., in Courtroom 21-B.

This constitutes the decision and order of the Court.

S.D.N.Y., 2008.

Schindler Elevator Corp. v. Otis Elevator Co.

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