

United States District Court,
W.D. Wisconsin.

BRUNO INDEPENDENT LIVING AIDS, INC,
Plaintiff.

v.
ACORN MOBILITY SERVICES LTD. and Acorn Stairlifts, Inc,
Defendants.

No. 02-C-0391-C

March 4, 2003.

Background: Owner of patent for stairway chairlift device sued competitor for infringement, violations of Antidumping Act, and deceptive advertising.

Holdings: Construing claims, the District Court, Crabb, J., held that:

- (1) "seat assembly," included swivel housing and bracket in claim that expressly defined assembly as including such parts, but excluded them in claims that distinguished between assembly and carriage unit;
- (2) requirement that flange be "rigidly secured" to seat assembly meant that flange had to be bolted to bracket on swivel housing for seat assembly's swivel tube; and
- (3) requirement that swivel tube be fixed "proximate to" front edge of seat bracket meant that tube had to be located off-center relative to seat, proximate to front edge of seat bracket and capable of mating with swivel mounting bracket, which in turn had to be located proximate to front of carriage unit.

Claims construed.

See also 286 F.Supp.2d 1020.

5,230,405. Construed.

Thomas M. Pyper, Madison, WI, for Plaintiff.

Michael E. Florey, Fish & Richardson P.C., P.A., Minneapolis, MN, for Defendants.

OPINION AND ORDER

CRABB, District Judge.

This is a civil action in which plaintiff Bruno Independent Living Aids, Inc. contends that defendants Acorn Mobility Services Ltd. and Acorn Stairlifts, Inc. infringed its U.S. Patent No. 5,230,405, which is directed to a stairway chairlift device that transports disabled individuals up and down a staircase. In addition, plaintiff contends that defendants sold their product below cost in violation of the Antidumping Act, 15 U.S.C. s. 72, and engaged in deceptive advertising in violation of the Lanham Act, 15 U.S.C. s. 1125(a)(1)(B). Defendants filed a counterclaim, seeking a declaratory judgment of non-infringement and invalidity of the '405 patent. Jurisdiction is present. 28 U.S.C. s.s. 1338(a) and 1331.

The case is presently before the court for a ruling on the construction of certain elements within claims 5, 9, 10 and 15 of the '405 patent. A hearing on the construction of the claims was held on January 31, 2003. Defendants filed a motion to file a reply brief in support of their proposed claim construction. The motion will be granted.

Taking into consideration the '405 patent, the prosecution history and the arguments made by the parties in their briefs and at the hearing, I construe (1) "seat assembly" as excluding swivel housing 254 and bracket 242 in claims 5, 9 and 10, and as including these two components in claim 15; (2) "wherein said flange is rigidly secured to said seat assembly" to mean flange section 212 is bolted to bracket 242, which is welded to swivel housing 254 into which swivel tube 266 fits coaxially; (3) "tongue section" to mean a projecting strip that may, but need not, resemble or suggest a human tongue; (4) "proximate to said front edge of said bracket" to mean that swivel tube 266 must be located off-center (in the forward direction) relative to the seat, proximate to the front edge of bracket 262 and capable of mating with the swivel mounting bracket, which must be located "proximate to the front of said carriage unit"; and (5) "angular adjustment arm" to mean tongue section 206, intermediate brace 214 and horizontal flanges 212. In addition, the following phrases invoke 35 U.S.C. s. 112, para. 6:(1) "means for fixedly securing said arm to said seat assembly"; (2) "motor means operatively engaging said rail"; (3) "angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail" in claim 9; (4) "means for mounting said seat assembly to said carriage unit"; (5) "means for pivoting said arm relative to said carriage unit"; (6) "means for locking said arm in a fixed angular relation to said carriage unit"; and (7) "means for selectively locking the seat assembly in a preselected position." In contrast, the following two phrases do not invoke 35 U.S.C. s. 112, para. 6:(1) "angularly adjustable mounting means to compensate for the angular orientation of the rail"; and (2) "angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail" in claim 10.

OPINION

A. Canons of Claim Construction

[1] [2] [3] [4] Infringement analysis begins with construction of the claims at issue. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed.Cir.1995) (en banc), *aff'd*. 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). It is a legal determination to be made by the court. *See Vitronics*, 90 F.3d at 1582. "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." *Id.* Construction of the disputed terms begins with the language of the claims themselves. Generally, "all terms in a patent claim are to be given their plain, ordinary and accustomed meaning to one of ordinary skill in the relevant art." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed.Cir.2001). Moreover, "unless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan

of ordinary skill." *Id.*

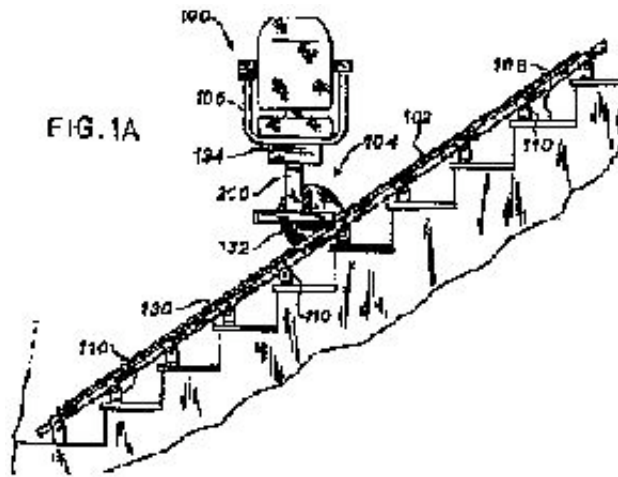
[5] [6] In many instances, however, a court must proceed beyond the bare language of the claims and examine the patent specification. The specification serves an important role in arriving at the correct claim construction because it is in the specification that the patentee provides a written description of the invention that allows a person of ordinary skill in the art to make and use the invention. *Markman*, 52 F.3d at 979. In particular, the specification must be consulted because "patent law permits the patentee to choose to be his or her own lexicographer by clearly setting forth an explicit definition for a claim term that could differ in scope from that which would be afforded by its ordinary meaning." *Rexnord*, 274 F.3d at 1342; *Vitronics*, 90 F.3d at 1582 ("a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history"). Although the patent specification does not broaden or narrow the invention, which is specifically laid out in the patent's claims, the specification may be used to interpret what the patent holder meant by a word or phrase in the claim. *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed.Cir.1988); *see also Vitronics Corp.*, 90 F.3d at 1582 (when term is not specifically defined in claims, it is necessary to review specification to determine whether inventor uses term inconsistently with its ordinary meaning).

[7] [8] After considering the claim language and the specification, a court may consider the final piece of intrinsic evidence, the patent's prosecution history. *Vitronics*, 90 F.3d at 1582. "[S]tatements made during the prosecution of a patent may affect the scope of the invention." *Rexnord*, 274 F.3d at 1343. Typically, analysis of the intrinsic evidence will eliminate any ambiguity in the claim terms, rendering unnecessary any reference to extrinsic evidence, such as expert testimony, inventor testimony, dictionaries, technical treatises and articles. *Vitronics*, 90 F.3d at 1583. However, a court may find it helpful to consult extrinsic evidence to be sure that its claim construction "is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1309 (Fed.Cir.1999). On the other hand, courts are "not to rely on extrinsic evidence in claim construction to contradict the meaning of claims discernible from thoughtful examination of the claims, the written description, and the prosecution history." *Id.* at 1308. Generally, the prosecution history is relevant if a particular interpretation of the claim was considered and specifically disclaimed during the prosecution of the patent. *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 30, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997); *Vitronics*, 90 F.3d at 1582-83.

B. Claim Construction

Plaintiff's '405 patent is directed to a stairway chairlift device that transports disabled individuals up and down a staircase. As described in the patent specification, stairway chairlift 100 has a rail assembly 102, carriage unit 104 and seat assembly 106.

FIG. 1A



1. *Seat assembly*

[9] Claims 5, 9, 10 and 15 use the phrase "seat assembly," which is a term of art particular to the '405 patent. Claim 15 defines "seat assembly" within the claim itself as comprising certain components, but claims 5, 9 and 10 refer simply to the "seat assembly" without any definition. The parties dispute whether "seat assembly" includes swivel housing 254 and bracket 242 as to all four claims. Defendants maintain that in claims 5, 9 and 10 the swivel housing and bracket are part of the carriage unit rather than the seat assembly.

a. **Claim 15**

In claim 15 of the '405 patent, the patentee claimed:

c) a seat assembly mounted to said carriage unit, said seat assembly comprising:

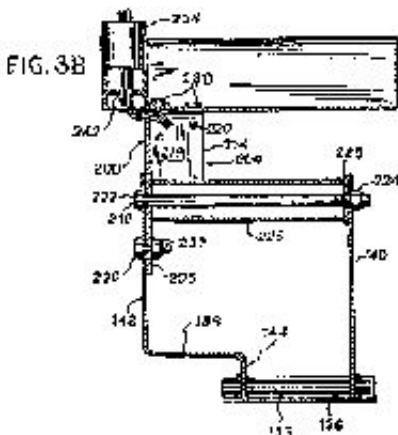
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ii) a swivel tube fixed to the bottom of said seat bracket proximate to said front edge of said bracket;

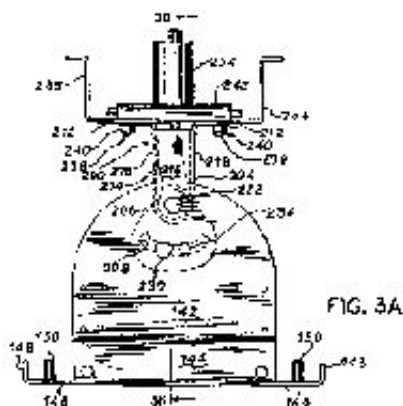
iii) a swivel mounting bracket fixed to the top of said carriage unit and mounted to said carriage unit proximate to the front of said carriage unit;

.....

wherein said swivel tube coaxially fits within said swivel mounting bracket and further wherein said swivel tube is free to rotate axially within said swivel mounting bracket.



'405 Patent, at 11:30-12:15. Because claim 15 defines "seat assembly" expressly, it is unnecessary to turn to the patent specification to interpret its meaning. In claim 15, "seat assembly" includes a "swivel mounting bracket," which plaintiff construes as including both swivel housing 254 and bracket 242. Because the claim provides further that "said swivel tube [266] is free to rotate axially within said swivel mounting bracket," it is logical that the "swivel mounting bracket" is made up of both swivel housing 254 and bracket 242. Accordingly, in claim 15, "seat assembly" includes a "swivel mounting bracket," which, in turn, includes swivel housing 254 and bracket 242. (At the claims construction hearing, defendants appeared to concede that swivel housing 254 and bracket 242 are part of the seat assembly as to claim 15.)



b. Claims 5, 9 and 10.

[10] [11] Plaintiff contends that "the most complete definition of 'seat assembly,' to which [plaintiff] is entitled for all claims construction, is set forth in Claim 15." Plt.'s Br., dkt. # 17, at 12. In other words, plaintiff argues that "seat assembly" in claim 5, 9 and 10 means the same as it does in claim 15. In support of its contention, plaintiff cites *In re Baker Hughes, Inc.*, 215 F.3d 1297, 1301 (Fed.Cir.2000). In that case, however, the court did not discuss how a defined term of art in one claim controls an undefined use of that same term in other claims. In fact, it is unclear how *Baker Hughes* relates to plaintiff's contention. In any event, at the claims construction hearing, plaintiff conceded that a patentee cannot use limitations in one

claim to limit another claim. This was a wise concession. It is settled law that the "scope of each individual claim must be examined on its own merits, apart from that of other claims, even in same patent." Lemelson v. TRW, Inc., 760 F.2d 1254, 1267 (Fed.Cir.1985); *see also* Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1326 (Fed.Cir.2003) ("when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement") (internal quotation omitted).

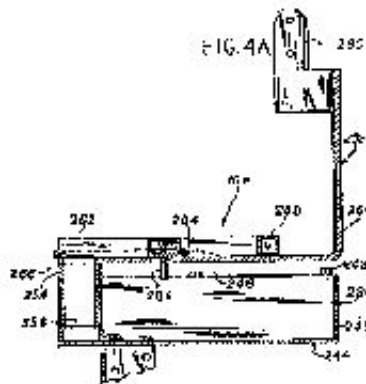
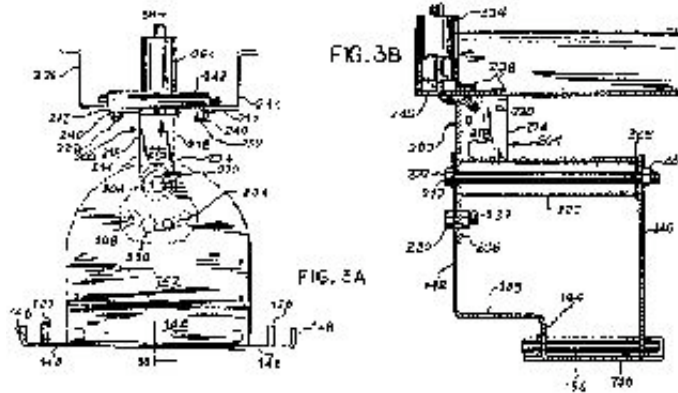
It is well established that "the language of the claim defines the scope of the protected invention." Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 619 (Fed.Cir.1995) (citing Yale Lock Mfg. Co. v. Greenleaf, 117 U.S. 554, 559, 6 S.Ct. 846, 29 L.Ed. 952 (1886) and Autogiro Co. of Am. v. United States, 181 Ct.Cl. 55, 384 F.2d 391, 396 (1967) ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he set forth [in the claim].")). Accordingly, " 'resort must be had in the first instance to the words of the claim,' words to which we ascribe their ordinary meaning unless it appears the inventor used them otherwise." Vitalink, 55 F.3d at 619 (quoting Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 759 (Fed.Cir.1984)). Second, it is equally "fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention." United States v. Adams, 383 U.S. 39, 49, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966); *see also* Markman, 52 F.3d at 979 ("Claims must be read in view of the specification, of which they are a part.... For claim construction purposes, the [specification's] description may act as a sort of dictionary, which explains the invention and may define terms used in the claims.").

Plaintiff contends that "the limitations of the specification cannot be used to limit the express terms of the claim." Plt.'s Br., dkt. # 17, at 13 (citing Intervet America, Inc. v. Kee-Vet Laboratories, Inc., 887 F.2d 1050, 1053 (Fed.Cir.1989)). This is true. However, claims 5, 9 and 10 do not define "seat assembly" expressly. Instead, these claims merely refer generally to the "seat assembly." Thus, the specification is " 'necessary to give life, meaning, and vitality' " to the term in these three claims. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1306 (Fed.Cir.1999) (quoting Kropa v. Robie, 38 C.C.P.A. 858, 187 F.2d 150, 152 (Cust. & Pat.App.1951)); *see also* Intervet, 887 F.2d at 1053 ("this court has consistently adhered to the proposition that courts cannot alter what the patentee has chosen to claim as his invention, that limitations appearing in the specification will not be read into claims, and that interpreting what is *meant* by a word *in* a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper' ") (emphasis in original; internal citation omitted). In other words, persons reading "seat assembly" in claims 5, 9 and 10 can understand the term only in the context of the specification. Therefore, I will turn to the specification to determine what the patentee meant by the term "seat assembly" in these claims.

Defendants assert that swivel housing 254 and bracket 242 are not part of the "seat assembly" because (1) Figure 3A and 3B, which are described as views of the "carriage unit," each show swivel housing 254 and bracket 242; and (2) the carriage unit section of the specification provides that:

A control box 236 is fixedly mounted to the top of arm 204.... Bracket 242 provides the base for a swivel housing 254. Housing 254 is a piece of steel tube welded to bracket 242. As shown in FIG. 4A, housing 254 extends upwardly through cover 246. A hole is provided in bracket 242 to permit wires from control circuit 252 to pass through to the seat assembly 106.

'405 Patent, at 5:6-7 and 5:23-28.



In response to defendants' argument, plaintiff argues that swivel housing 254 is also found in the "seat assembly" section of the specification, as follows:

The seat assembly 106 is mounted to the carriage unit 104 by using the swivel housing 254.... A swivel tube 266 is welded to the underside of bracket 262. Tube 266 fits coaxially into housing 254 to permit rotation of seat assembly 106.

'405 Patent, at 5:48-49; 5:53-55, thereby showing that it is part of the seat assembly.

Plaintiff's argument is unpersuasive for several reasons. First, the reference to swivel housing 254 in the seat assembly section of the preferred embodiment appears to be nothing more than an aside to demonstrate how the seat assembly couples with the carriage unit. In contrast, the specification for the carriage section of the preferred embodiment describes swivel housing 254 and bracket 242 in detail rather than merely referring to the way the seat assembly and carriage unit mate. Second, although the carriage section refers to both swivel housing 254 and bracket 242, the seat assembly section never mentions bracket 242. Therefore, it is unclear how bracket 242 fits into plaintiff's argument. Third, the carriage section provides that "[a] hole is provided in bracket 242 to permit wires from control circuit 252 to pass through to the seat assembly 106." Because

the wires *pass through* bracket 242 to seat assembly 106, bracket 242 could not be part of the seat assembly. Fourth, the seat assembly section provides that "[t]ube 266 fits coaxially into housing 254 to permit rotation of seat assembly 106." However, swivel housing 254 and bracket 242 do not rotate, indicating that these two components are not part of the rotatable seat assembly. Finally, swivel housing 254 and bracket 242 are parts of Figure 3A, described in the specification as the "front view of the carriage unit," and Figure 3B, described in the specification as the "cross-sectional view of the carriage unit."

[12] The correct claim construction is the one that "stays true to the claim language and most naturally aligns with the patent's description of the invention." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998). Moreover, the carriage unit section, seat assembly section, and Figures 3A and 3B describe the preferred embodiment. Thus, adopting plaintiff's construction of "seat assembly" for claims 5, 9 and 10 would necessarily exclude the preferred embodiment; such a construction "is rarely, if ever, correct." *Vitronics*, 90 F.3d at 1583; *see also Hoechst Celanese Corp. v. BP Chemicals, Ltd.*, 78 F.3d 1575, 1581 (Fed.Cir.1996) (unlikely that inventor would define invention in way that excludes preferred embodiment or that those skilled in the art would read it that way); *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1477 (Fed.Cir.1998) (same). Accordingly, "seat assembly" as used in claims 5, 9 and 10 exclude swivel housing 254 and bracket 242.

2. Wherein said flange is rigidly secured to said seat assembly

[13] Claims 5 and 10 use the limitation "wherein said flange is rigidly secured to said seat assembly." The dispute centers on "rigidly secured." Defendants argue that the term means that flange 212 is fastened to seat assembly 106 in such a way that the seat assembly is firm and unyielding, but may nevertheless rotate or pivot. Defendants argue further that because flanges 212 are bolted to bracket 242 (which is not part of the seat assembly), the flanges are not "rigidly secured" to the seat assembly. Plaintiff asserts that Figure 3A shows flange section 212 bolted to bracket 242 (which plaintiff asserts is part of seat assembly 106) by bolts 238 and nuts 240. However, I already have determined that as to claims 5, 9 and 10, bracket 242 and swivel housing 254 are not part of the seat assembly. As a result, I cannot conclude that bolting flange section 212 to bracket 242 in claims 5 and 10 involves the seat assembly directly.

However, plaintiff argues alternatively that even if swivel housing 254 and bracket 242 were considered intermediate mounts between the carriage unit and seat assembly, there is nothing in the claim limitations to indicate that flange section 212 must touch the seat assembly *directly*. I agree. The specification and illustrations indicate that flange section 212 is bolted to bracket 242, which is welded to swivel housing 254 into which swivel tube 266 fits coaxially. Thus, the flange is secured to said seat assembly. The next question is whether this mating is one in which the flange can be said to be "rigidly secured" to the seat assembly.

It "is well settled that dictionary definitions provide evidence of a claim term's 'ordinary meaning.' " *Inverness Medical Switzerland v. Warner Lambert Co.*, 309 F.3d 1373, 1378 (Fed.Cir.2002); *see also Vanguard Products Corp. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed.Cir.2000) ("A dictionary is not prohibited extrinsic evidence, and is an available resource of claim construction."). Because the parties do not suggest that the phrase "rigidly secure" has any specialized or technical meaning for practitioners of the relevant art, "standard dictionaries of the English language are the proper source of [the] ordinary meaning of the phrase." *Id.*; *see also Vitronics*, 90 F.3d at 1584 n. 6 ("Judges are free to ... rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.").

Rigid is defined as "stiff; firm; not bending: a rigid support"; its synonyms include "unyielding" and "unbending." 1 *The World Book Dictionary* 1797-98 (1st ed.1990); *see also* XIII *Oxford English Dictionary* 938 (2d ed.1989) ("rigid" defined as "stiff, unyielding; not pliant or flexible; firm; hard"). When seat assembly 106 mates (coaxially via tube 266 and swivel housing 254) with flange 212, the flange is secured in a stiff, firm and unbending manner relative to the seat assembly. In other words, flange 212 is rigidly secured to seat assembly 106. Defendants do not argue that "rigid" means never moving. In fact, other than disputing whether swivel housing 254 and bracket 242 are part of the seat assembly, defendants concede that the "ordinary meaning [of 'rigidly secure'] does allow for some limited movement." Dfts.' Br., dkt. # 14, at 9.

3. Tongue section

[14] Claims 5 and 10 use the phrase "tongue section." Figure 3A shows teardrop shaped tongue 206, which connects both to brace 214 and carriage unit housing 142. Defendants argue that "tongue section" in claims 5 and 10 must be construed as referring only to a projecting member that resembles or suggests a human tongue by its shape or position. I find this argument unpersuasive. There is no expressed intention by the patentee to narrowly define this element in this way. In fact, "unless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill." *Rexnord*, 274 F.3d at 1342. A tongue is a projecting strip that may, but need not, resemble or suggest a human tongue. *See* 2 *The World Book Dictionary* 2204 (1990) ("tongue" defined in machinery context as "a projecting flange, rib, or strip for any purpose"). The phrase tongue-and-groove is a good example of a projecting strip that traverses the entire edge of a board that does not resemble the human tongue in shape. Moreover, adopting defendants' construction of "tongue section" would unnecessarily exclude the preferred embodiment, which is a teardrop shaped tongue. *See Vitronics*, 90 F.3d at 1583 (claim interpretation that excludes preferred embodiment "is rarely, if ever, correct").

4. Proximate to said front edge of said bracket

[15] Claim 15 of the '405 patent includes the following limitation:

c) a seat assembly mounted to said carriage unit, said seat assembly comprising:

i) a seat bracket having a front edge and a rear edge, a backrest being mounted at said rear edge of said bracket;

ii) a swivel tube fixed to the bottom of said seat bracket proximate to said front edge of said bracket;

iii) a swivel mounting bracket fixed to the top of said carriage unit and mounted to said carriage unit proximate to the front of said carriage unit;

iv) means for selectively locking said seat assembly in a preselected position;

'405 Patent, at 11:30-12:12.

Plaintiff argues that swivel tube 266 need be only proximate to the front edge of bracket 262 because "proximate to said front edge of said bracket" is unambiguous. Although defendants concede that the language is unambiguous, they argue that the prosecution history mandates a construction of the claim as meaning that the swivel must be located proximate to the front edge of the seat, not just the bracket. As

defendants note, the patent examiner rejected claim 15 (originally known as claim 20) because of invalidating prior art. Specifically, the patent examiner stated:

Re claim [15], the chairlift device of Stopher '589 shows all of the claimed elements except for the seat assembly 10 thereof comprising a swivel tube fixed to the bottom of seat bracket 18, a swivel mounting bracket fixed to the top of the carriage unit 26, 28, 30, and means for selectively locking said seat assembly in a preselected position.

Voves et al ['264] teach the use in a chairlift seat assembly of a swivel tube 78 fixed to the bottom of a seat bracket at 64, a swivel mounting bracket 62 fixed to the top of a carriage unit 20 ... It would have been obvious to one of ordinary skill in the art to provide the seat assembly 10 of Stopher with a swivel tube, swivel mounting bracket, and locking means as recited in claim [15] in order to permit a user to adjust the position of the seat assembly 10 in view of the teaching of Voves et al.

Aff. of Chad Hansen, dkt. # 15, at Exh. 7 (PTO Correspondence, June 3, 1992).

In order to overcome the examiner's rejection, the patentee added the following underlined text to claim 15:

a swivel tube fixed to bottom of said seat bracket *proximate to said front edge of said bracket;*

a swivel mounting bracket fixed to the top of said carriage unit *and mounted to said carriage unit proximate to the front of said carriage unit*

Id. at Exh. 9 (Amendment and Response, November 13, 1992). In addition, the patentee made the following remarks regarding these changes to claim 15:

Specifically, Applicant has amended Claim [15] to include the positional mounting of the swivel mechanism relative to the front edges of the carriage unit and the seat assembly. Claim [15] now calls for the swivel tube and mounting bracket to be mounted proximate to the front edge of the carriage unit and seat assembly. This feature provides several advantages neither taught nor suggested by the references cited by the Examiner.

First, having a front offset pivot point for the seat allows the rail and other components of the chairlift to be mounted closer to the wall of the stairway than seats having a center pivot point as shown in the prior art. This also permits better access to the stairway by able-bodied individuals since the chairlift occupies less space.

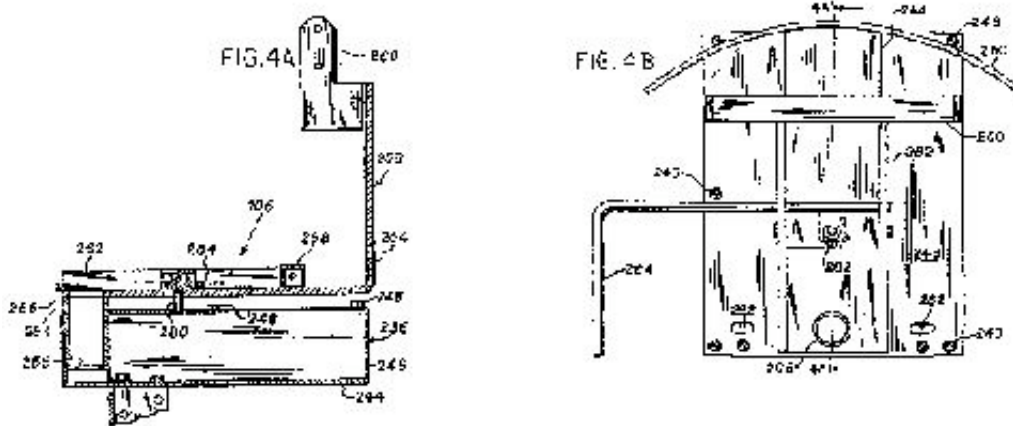
Second, the front mounted pivot allows the seat to swing more toward the center of the stairs, thereby allowing more room for a person transferring to a wheelchair or walker. The same advantage is realized when the person using the chairlift is moving from a wheelchair or walker to the seat.

Id.

"The prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." *Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed.Cir.1995); *see also Markman*, 52 F.3d at 979 ("To ascertain the meaning of claims, we consider three sources: The claims, the specification, and the prosecution history."). Generally, the prosecution history is

relevant if a particular interpretation of the claim was considered and specifically disclaimed during the prosecution of the patent. *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 30, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997); *Vitronics*, 90 F.3d at 1582-83.

Figures 4A and 4B illustrate the following:



Defendants assert that swivel tube 266 must be located proximate to the front edge of the seat itself as shown in the preferred embodiment in order to achieve the advantages of the patentee's touted "front offset pivot point." In other words, defendants argue, if swivel tube 266 were offset only relative to bracket 262 (and, of course, the bracket were smaller than the seat), it would not fully overcome the examiner's prior art rejection because tube 266 could be offset relative to bracket 262 but still be located in the center (non-offset) of the seat. I agree. However, that does not mean that swivel tube 266 necessarily must be proximate to the *front edge* of the *seat* in order to achieve a front offset pivot point. Instead, all that is needed is that swivel tube 266 be located off-center (in the forward direction) relative to the seat and able to mate with the swivel mounting bracket located "proximate to the front of said carriage unit." *See Markman*, 52 F.3d at 980 ("The court has broad power to look as a matter of law to the prosecution history of the patent in order to ascertain the true meaning of language used in the patent claims."). In light of the prosecution history and amendments to claim 15, I construe "proximate to said front edge of said bracket" to mean that swivel tube 266 must be located off-center (in the forward direction) relative to the seat, proximate to the front edge of bracket 262 and capable of mating with the swivel mounting bracket (swivel housing 254 and bracket 242), which must be located "proximate to the front of said carriage unit."

5. *Angular adjustment arm*

[16] Claim 9 uses the phrase "angular adjustment arm." The parties agree that the construction of this phrase is that arm 204 is made up of tongue section 206, intermediate brace 214 and horizontal flanges 212.

C. *Means-Plus-Function Limitations*

Claim limitations drafted pursuant to 35 U.S.C. s. 112, para. 6 are termed means-plus-function limitations. Section 112, para. 6 provides that such limitations "shall be construed to cover the corresponding structure ...

described in the specification and equivalents thereof." 35 U.S.C. s. 112, para. 6. "Drafters of means-plus-function claim limitations are statutorily guaranteed a range of equivalents extending beyond that which is explicitly disclosed in the patent document itself." *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1347 (Fed.Cir.2001). Structural equivalence under s. 112, para. 6 is "an application of the doctrine of equivalents ... *in a restrictive role.*" *Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 28, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997) (emphasis added).

[17] [18] "The 'means' term in a means-plus-function limitation is essentially a generic reference for the corresponding structure disclosed in the specification." *Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308 (Fed.Cir.1998). Under s. 112, para. 6, "an applicant can describe an element of his invention by the result accomplished or the function served, rather than describing the item or element to be used (e.g., 'a means of connecting Part A to Part B,' rather than 'a two-penny nail')." *Warner-Jenkinson*, 520 U.S. at 27, 117 S.Ct. 1040. "A determination of corresponding structure, therefore, is a determination of the meaning of the 'means' term in the claim and is thus also a matter of claim construction." *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed.Cir.1998); *B. Braun Med., Inc. v. Abbott Lab.*, 124 F.3d 1419, 1424-25 (Fed.Cir.1997) (determining de novo which structures disclosed in specification corresponded to means limitation). "[I]n order to meet a means-plus-function limitation, an accused device must (1) perform the identical function recited in the means limitation; and (2) perform that function using the structure disclosed in the specification or an equivalent structure." *Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*, 15 F.3d 1573, 1578 (Fed.Cir.1993). These are questions for the factfinder. *See Mas-Hamilton*, 156 F.3d at 1211-12.

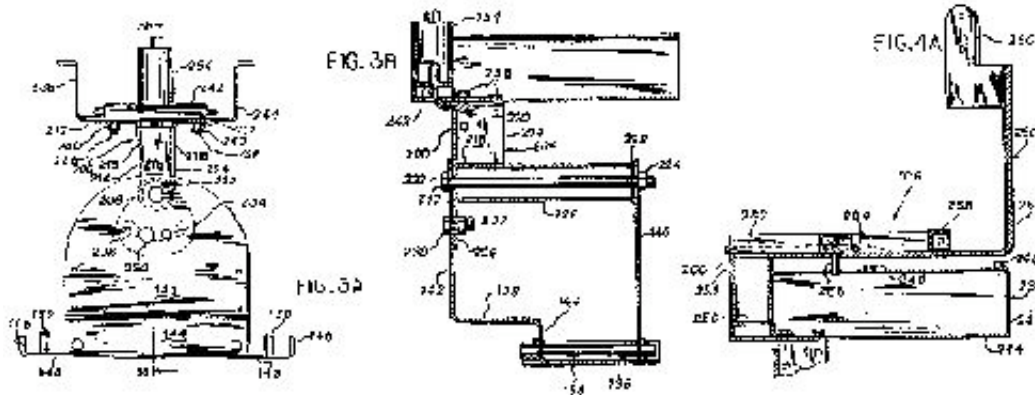
[19] [20] The parties dispute whether the patentee's use of the word "means" in certain instances within the '405 patent invokes s. 112, para. 6. "Whether certain claim language invokes 35 U.S.C. s. 112, para. 6 is an exercise in claim construction and is therefore a question of law." *Personalized Media Communications, LLC v. International Trade Commission*, 161 F.3d 696, 702 (Fed.Cir.1998); *see also Rodime PLC v. Seagate Technology, Inc.*, 174 F.3d 1294, 1302 (Fed.Cir.1999) ("a court must decide the subsidiary question of whether the claim element disputed by the parties invokes s. 112, para. 6 in the first instance"). In determining whether a claim element falls within s. 112, para. 6, a court presumes that the patentee used the word "means" advisedly to invoke the statutory mandates for means-plus-function clauses. *See Sage Products, Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427 (Fed.Cir.1997) (word "means" is "part of the classic template for functional claim elements"). However, this presumption is overcome in two situations. First, a claim element that uses the word "means" but recites no corresponding function for the "means" does not invoke s. 112, para. 6. *See id.* at 1427. Second, even if the claim element specifies a function, if it also recites sufficient structure, material or acts within the claim itself for performing that function, s. 112, para. 6 does not apply. *See id.* at 1427-28 ("[W]here a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format."); *Personalized Media*, 161 F.3d at 704 ("In deciding whether [the] presumption has been rebutted, the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of s. 112, para. 6."); *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 531 (Fed.Cir.1996) ("An element with such a detailed recitation of structure ... cannot meet the requirements of [s. 112, para. 6].").

1. Means for fixedly securing said arm to said seat assembly

[21] Claim 9 includes the limitation "means for fixedly securing said arm to said seat assembly." The function for the means is "fixedly securing said arm to said seat assembly." There is no corresponding

structure, material or acts within the claim itself. Accordingly, s. 112, para. 6 applies.

Defendants argue first that no corresponding structure exists in the specification because nothing "fixedly secures" arm 204 to seat assembly 106. As discussed earlier, because "seat assembly" in claim 9 does not include swivel housing 254 and bracket 242, defendants' position turns on (1) whether arm 204 must be attached *directly* to seat assembly 106; and (2) the meaning of "fixedly securing." Figures 3A, 3B and 4A collectively illustrate the structure by which arm 204 is attached to the seat assembly.



Tube 266 (the lowermost portion of the seat assembly) coaxially fits within swivel housing 254, which is welded to bracket 242, which is connected to flanges 212, which is the upper part of arm 204. As discussed earlier, the fact that arm 204 and seat assembly 106 do not touch directly does not mean that they are not ultimately secured to each other. A person's hand is secured to his or her body notwithstanding intermediates such as the wrist, lower arm, elbow, upper arm and shoulder.

[22] Therefore, the question is whether arm 204 is "fixedly secure[d]" to the seat assembly. Because the patent uses "*rigidly secured*" in claims 5 and 10 and "*fixedly securing*" in claim 9, defendants argue that these adverbs must mean something different. *See CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed.Cir.2000) ("In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings."). Defendants argue that "rigidly secured" means secured but able to pivot while "fixedly secure" means secured but immovable. Although defendants provide various definitions for "fix" and "fixedly," they ignore the fact that their proffered dictionaries also include "rigid" as a definition of "fix" or "fixed." *See Webster's New World Dictionary* 528 (2d ed.1982) ("fix" includes "to make rigid or stiff"); *Chambers English Dictionary* 538 (7th ed.1988) ("fix" includes "rigid"; "fixedly" adverbial form of "fix"); *see also Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1477 (Fed.Cir.1998) ("term 'fixed' requires only that the console be rigidly secured"). Moreover, adopting defendants' interpretation of the term "fixedly secure" would exclude the preferred embodiment from the claim. As I have noted, a claim interpretation that excludes the preferred embodiment "is rarely, if ever, correct." *Vitronics*, 90 F.3d at 1583. Claims amenable to more than one construction should be construed to preserve their validity when it is reasonably possible to do so. *See Wang Laboratories, Inc. v. America Online, Inc.*, 197 F.3d 1377, 1383 (Fed.Cir.1999); *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed.Cir.1996) (choosing narrower of two equally plausible claim constructions to avoid invalidating claim). The corresponding structure for accomplishing the function of "fixedly securing said

arm to said seat assembly" consists of flanges 212, bolts 238, nuts 240, mounting bracket 242, swivel housing 254 and tube 266.

2. Motor means operatively engaging said rail

[23] Each of the four claims at issue uses the limitation "motor means operatively engaging said rail." The function corresponding to the means is "operatively engaging said rail." Although plaintiff argues in its brief that "operatively engaging said rail" is a relationship rather than a function, plaintiff's own expert did a mean-plus-function analysis in his report. *See* Report of Frank Fronczak, dkt. # 12, at 4. In any event, the claim itself does not provide sufficient structure to perform the recited function and, thus, s. 112, para. 6 applies.

Although the parties dispute whether s. 112, para. 6 applies to this limitation, they agree that the corresponding structure in the specification is made up of motor 170, gear box 160, gear rack 130, shafts 174, 178 and 184, belt drive wheels 176 and 180, belts 182 and spur gear 186.

3. Angularly adjustable mounting means to compensate for the angular orientation of the rail

[24] The function corresponding to the means is "compensat[ing] for the angular orientation of the rail." Defendants argue that claim 5 fails to recite a sufficient structure to perform the recited function. I disagree. Claim 5 provides in part:

wherein said seat assembly is mounted to said carriage unit on an *angularly adjustable mounting means to compensate for the angular orientation of the rail*;

wherein said angularly adjustable mounting means comprises an arm which comprises:

- a) a top flange section;
- b) a lower tongue section; and
- c) an intermediate brace section connecting said flange and tongue section;

further wherein said tongue section includes an arcuate slot and a hole, said tongue section hole being located at the center of the circuit of which said slot is an arc;

further wherein said carriage unit comprises a plurality of holes, a first hole located adjacent said tongue section slot, said carriage unit further comprising first bolt means engaging said tongue section hole and said first carriage unit hole, said first bolt means selectively assisting in locking said arm in fixed relation to said carriage unit;

further wherein said carriage unit comprises second bolt means which engages said slot and said second carriage unit hole, said second bolt means selectively assisting in locking said arm in fixed relation to said carriage unit;

further wherein said motor means includes battery means for providing power to said device, said battery means being automatically self-recharging.

'405 Patent, 8:62-9:24 (emphasis added).

Claim 5 recites the flanges, tongue, brace, arcuate slot, tongue hole, carriage unit comprising a plurality of holes, a first hole adjacent to the tongue slot, first and second bolts and a carriage unit hole. Accordingly, this element of claim 5 falls outside s. 112, para. 6.

4. Angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail

Claims 9 and 10 recite an "angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail." The function in each claim is "preselectively set[ting] said cushion in a horizontal position irrespective of the angular orientation of said rail."

a. Claim 9

[25] [26] Plaintiff concedes that claim 9 fails to describe a sufficient structure to perform the recited function, but argues that the structure can be found in claim 10. However, in order to overcome the presumption that a limitation invokes s. 112, para. 6, the claim *itself* must recite a sufficient structure. *See Sage Products*, 126 F.3d at 1427-28. Accordingly, s. 112, para. 6 applies to this element of claim 9.

Notwithstanding the parties' dispute about the application of s. 112, para. 6, they agree that the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, flange 212, brace 214, carriage pivot hole in surfaces 140 and 142, bolts 222 and 230, nuts 224 and 232, torsion tube 226, friction cap 228 and hole 234.

b. Claim 10

[27] Claim 10 provides in part:

wherein said seat mounting means includes *angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular displacement of said rail*;

further wherein said angular adjustment means comprises an arm which comprises

- a) a top flange section;
- b) a lower tongue section; and
- c) an intermediate brace section connecting said flange and tongue sections;

further wherein said tongue section includes an arcuate slot and a hole, said tongue section hole being located at the center of the circuit of which said slot is an arc;

further wherein said carriage unit comprises a plurality of holes, a first hole located adjacent said tongue section slot, said carriage unit further comprising first bolt means engaging said tongue section hole and said first carriage unit hole, said first bolt means selectively assisting in locking said arm in fixed relation to said carriage unit;

further wherein said carriage unit comprises second bolt means which engages said slot and said second carriage unit hole, said second bolt means selectively assisting in locking said arm in fixed relation to said carriage unit;

'405 Patent, 10:22-50 (emphasis added).

Claim 10 recites flanges, tongue, brace, arcuate slot, tongue hole, carriage unit comprising a plurality of holes, a first hole adjacent to the tongue slot, first and second bolts and a carriage unit hole. Accordingly, this element of claim 10 falls outside s. 112, para. 6.

5. Means for mounting said seat assembly to said carriage unit

[28] Claims 9 and 10 recite "means for mounting said seat assembly to said carriage unit." The parties agree that the function is "mounting said seat assembly to said carriage unit." Neither claim 9 nor 10 recites a sufficient structure within the claim. Accordingly, s. 112, para. 6 applies.

The specification describes the structure necessary to mount the seat assembly to the carriage unit. The parties agree that the structure that corresponds to the recited function is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, flange 212, brace 214, carriage pivot hole in surfaces 140 and 142, bolts 222, 230 and 238, nuts 224, 232 and 240, torsion tube 226, friction cap 228, hole 234, bracket 242 and swivel housing 254.

6. Means for pivoting said arm relative to said carriage unit

[29] Claim 9 of the patent recites a "means for pivoting said arm relative to said carriage unit." The function is "pivoting said arm relative to said carriage unit." Because claim 9 itself does not recite a corresponding structure, s. 112, para. 6 applies.

Defendants assert that the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, carriage pivot hole in surfaces 140 and 142, bolt 222 and nut 224. I agree. Plaintiff disputes the inclusion of slot 208, arguing that it "is not part of the pivoting structure [because] it serves only the horizontal adjustment function." Plt.'s Br., dkt. # 17, at 26. Plaintiff's argument is confusing in light of the fact that arm 204 pivots relative to the carriage unit in order to adjust the seat horizontally relative to the slope of the staircase. In other words, it is unclear what *other* horizontal adjustment plaintiff is referring to when it refers to slot 208. I conclude that slot 208 is part of the corresponding structure.

7. Means for locking said arm in a fixed angular relation to said carriage unit

[30] Claim 15 recites a "means for locking said arm in a fixed angular relation to said carriage unit." The function is "locking said arm in a fixed angular relation to said carriage unit." Because claim 15 does not provide a sufficient structure to perform the recited function, s. 112, para. 6 applies.

The parties agree that the corresponding structure found in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, carriage pivot hole in surfaces 140 and 142, bolts 222 and 230, nuts 224 and 232, torsion tube 226, friction cap 228 and hole 234.

8. Means for selectively locking the seat assembly in a preselected position

[31] Claim 15 describes a "means for selectively locking the seat assembly in a preselected position." The function is "selectively locking the seat assembly in a preselected position." Because claim 15 does not recite a sufficient structure to perform the recited function, s. 112, para. 6 applies.

Defendants argue that the corresponding structure described in the specification is made up of box 236, cover 246, bracket 262, handle 284, lock pin 286 and the spring loading mechanism. Plaintiff argues that box 236 does not perform the identified function and that only its cover 246 is used. I agree. Referring to Figure 4B, the patent provides:

The seat assembly 106 may be rotated selectively to positions facing 90 left or right of the front position. Rotation of seat assembly 106 is accomplished using a unique swivel arrangement. In the preferred embodiment, three slots 282 are provided in box cover 246. Slots 282 are provided at equidistant points 90 apart from the swivel tube 266. A swivel handle 284 is rotatable provided through bracket 262. A spring loaded lock pin 286 engages the center slot 282 in the front position. To move the seat assembly 106 to a left or right facing position, the operator lifts hand 284 to clear pin 286 from slot 283. The seat assembly 106 may then be rotated until pin 286 engages one of the other slots 282. Spring loading of the swivel handle 284 is done by conventional means and will not be discussed in detail.

'405 Patent, 6:19-34. Because box 236 does not perform any part of the identified function, it is not part of the corresponding structure. Accordingly, the corresponding structure is cover 246, bracket 262, handle 284, lock pin 286 and the spring loading mechanism.

ORDER

IT IS ORDERED that the motion by defendants Acorn Mobility Services Ltd. and Acorn Stairlifts, Inc. to file a reply brief is GRANTED.

Further, IT IS ORDERED that the claims of plaintiff Bruno Independent Living Aids, Inc.'s U.S. Patent No. 5,230,405 are construed as follows:

1. In claim 15, "seat assembly" includes swivel housing 254 and bracket 242;
2. In claims 5, 9 and 10, "seat assembly" does not include swivel housing 254 and bracket 242;
3. In claims 5 and 10, "wherein said flange is rigidly secured to said seat assembly" means that flange section 212 is bolted to bracket 242, which is welded to swivel housing 254 into which swivel tube 266 fits coaxially;
4. In claims 5 and 10, "tongue section" means a projecting strip that may, but need not, resemble or suggest a human tongue;
5. In claim 15, "proximate to said front edge of said bracket" means that swivel tube 266 must be located off-center (in the forward direction) relative to the seat, proximate to the front edge of bracket 262 and capable of mating with the swivel mounting bracket, which must be located "proximate to the front of said carriage unit";
6. In claim 9, "angular adjustment arm" means tongue section 206, intermediate brace 214 and horizontal

flanges 212;

7. In claim 9, "means for fixedly securing said arm to said seat assembly" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of flanges 212, bolts 238, nuts 240, bracket 242, swivel housing 254 and tube 266;

8. In claims 5, 9, 10 and 15, "motor means operatively engaging said rail" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of motor 170, gear box 160, gear rack 130, shafts 174, 178 and 184, belt drive wheels 176 and 180, belts 192 and spur gear 186;

9. In claim 5, "angularly adjustable mounting means to compensate for the angular orientation of the rail" does not invoke 35 U.S.C. s. 112, para. 6;

10. In claim 9, "angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, flange 212, brace 214, carriage pivot hole in surfaces 140 and 142, bolts 222 and 230, nuts 224 and 232, torsion tube 226, friction cap 228 and hole 234;

11. In claim 10, "angular adjustment means to preselectively set said cushion in a horizontal position irrespective of the angular orientation of said rail" does not invoke 35 U.S.C. s. 112, para. 6;

12. In claims 9 and 10, "means for mounting said seat assembly to said carriage unit" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, flange 212, brace 214, carriage pivot hole in surfaces 140 and 142, bolts 222, 230 and 238, nuts 224, 232 and 240, torsion tube 226, friction cap 228, hole 234, bracket 242 and swivel housing 254;

13. In claim 9, "means for pivoting said arm relative to said carriage unit" invokes s. 112, para. 6 and the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, carriage pivot hole in surfaces 140 and 142, bolt 222 and nut 224;

14. In claim 15, "means for locking said arm in a fixed angular relation to said carriage unit" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of surfaces 140 and 142, tongue 206, slot 208, hole 210, carriage pivot hole in surfaces 140 and 142, bolts 222 and 230, nuts 224 and 232, torsion tube 226, friction cap 228 and hole 234; and

15. In claim 15, "means for selectively locking the seat assembly in a preselected position" invokes 35 U.S.C. s. 112, para. 6 and the corresponding structure in the specification is made up of cover 246, bracket 262, handle 284, lock pin 286 and the spring loading mechanism.

W.D.Wis.,2003.

Bruno Independent Living Aids, Inc. v. Acorn Mobility Services Ltd.

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