NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

HC ROBOTICS, AKA HUICANG INFORMATION TECHNOLOGY CO., LTD., INVATA, LLC, DBA INVATA INTRALOGISTICS,
Appellants

v.

INTERNATIONAL TRADE COMMISSION,
Appellee

OPEX CORPORATION,
Intervenor

2024-1193

Appeal from the United States International Trade Commission in Investigation No. 337-TA-1293.

Decided: August 22, 2025

EDWARD NAIDICH, Mei & Mark LLP, Washington, DC, argued for appellants. Also represented by LEI MEI, PHILIP ANDREW RILEY, GUANG-YU ZHU.

RICHARD P. HADORN, Office of the General Counsel, United States International Trade Commission, Washing-

ton, DC, argued for appellee. Also represented by LYNDE FAUN HERZBACH, MICHELLE W. KLANCNIK.

DAVID JAMES SHAW, Desmarais LLP, Washington, DC, argued for intervenor. Also represented by GOUTAM PATNAIK, REBECCA LINDHORST; PAUL A. BONDOR, New York, NY; TUHIN GANGULY, Pepper Hamilton LLP, Washington, DC.

Before LOURIE, PROST, and STOLL, *Circuit Judges*.

LOURIE, *Circuit Judge*.

HC Robotics and Invata, LLC (collectively "HC Robotics") appeal from a decision of the International Trade Commission ("the Commission"). The Commission determined that HC Robotics' Omnisort Gen 2 infringed claims 1 and 5 of U.S. Patent 8,622,194 ("the '194 patent") and claims 1–5, 7–9, 11–13, 15, 16, and 18–20 of U.S. Patent 10,576,505 ("the '505 patent"). *See Certain Automated Put Walls & Automated Storage & Retrieval Sys., Associated Vehicles, Associated Control Software, & Component Parts Thereof*, Inv. No. 337-TA-1293, 2023 WL 5426449 (Aug. 17, 2023) ("*Commission Opinion*"); *Certain Automated Put Walls & Automated Storage & Retrieval Sys., Associated Vehicles, Associated Control Software, & Component Parts Thereof*, Inv. No. 337-TA-1293, 2023 WL 3093548 (Mar. 31, 2023) ("*Initial Determination*"). The Commission found a violation of 19 U.S.C. § 1337 ("Section 337") and issued a limited exclusion order as well as cease and desist orders. HC Robotics argues that errors in claim construction resulted in a flawed infringement analysis. For the following reasons, we *affirm*.

BACKGROUND

OPEX Corp. owns the '194 and '505 patents, which are members of the same patent family, share a specification, and are titled "Material Handing Apparatus for Delivering or Retrieving Items." *See* '194 patent col. 1 ll. 1–2.[1] The patents are directed to mail sorting systems and disclose "[a] method and apparatus [] for sorting or retrieving items to/from a plurality of destination areas" where "delivery vehicles follow a track [] to/from the destination areas, which are positioned along the track." *Id.* Abstract. Figure 1 illustrates an embodiment of the invention:

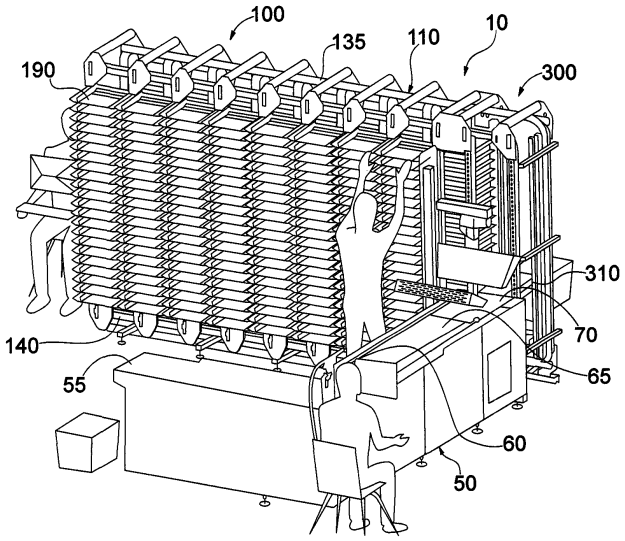


Fig. 1

Id. Figure 1. The specification describes the delivery vehicle of the example embodiment traveling in a vertical loop to sort an item into the appropriate output bin. *See*

[1] Because the '194 patent and '505 patent share a common specification, this opinion cites the '194 patent as representative unless otherwise indicated.

id. col. 2 l. 65–col. 3 l. 24. As the specification explains, the delivery vehicle receives an item at loading station 310 and then travels upwardly to horizontal track 135, where it then travels to the appropriate column of bins. *Id.* col. 3 ll. 2–16. The track then directs the vehicle down the vertical legs, where it stops at the appropriate bin and discharges its item into the bin. *Id.* col. 3 ll. 16–19. The vehicle then continues down to horizontal track 140, where it returns to loading station 310 to repeat the process. *Id.* col. 3 ll. 20–24.

Independent claim 1 of the '194 patent and independent claims 1 and 18 of the '505 patent are representative for the issues on appeal. Claim 1 of the '194 patent reads, in relevant part:

> 1. A material handling system for delivering a plurality of items to or from a plurality of destination areas, comprising:
>
> a plurality of delivery vehicles for delivering item to the destination areas, wherein the destination areas are arranged into a first series of columns extending generally vertically and a second series of columns extending generally vertically, . . .
>
> *a track for guiding the delivery vehicles to the destination areas, wherein the track is positioned between the first series of columns and the second series of columns so that a delivery vehicle can move vertically between the first series of columns and the second series of columns*, and wherein when a delivery vehicle is stopped at a point along the track, the transfer mechanism can transfer an item forwardly between the vehicle and a destination area in the first series of columns and the transfer mechanism can transfer an item rearwardly between the vehicle and a destination in the second series of columns;

. . . .

Id. col. 19 ll. 37–67 (emphasis added). Claim 1 of the '505 patent reads:

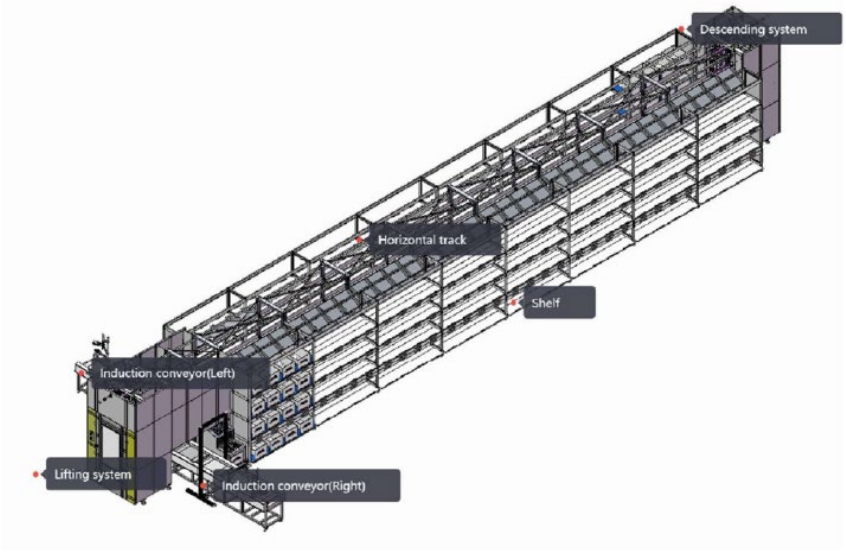
> 1. A delivery vehicle operable with a material handling system having a plurality of destination areas and *a guide system*, wherein the delivery vehicle comprises:
>
> a loading mechanism for loading an item onto the delivery vehicle, wherein the loading mechanism comprises:
>
> a conveyor having a length forming a substantially horizontal surface for receiving an item to be conveyed to one of the destination areas; and
>
> a load controller for controlling operation of the conveyor to control the position of the item on the vehicle;
>
> a motor for driving the vehicle to one of the destination areas;
>
> *a drive system cooperable with the guide system to guide the vehicle to one of the destination areas, wherein the drive system is configured to maintain the orientation of the vehicle relative to the horizon as the vehicle changes from a horizontal direction of travel to a vertical direction of travel.*

'505 patent col. 20 ll. 1–29 (emphases added). As relevant to this appeal, claim 18 of the '505 patent differs from claim 1 only with respect to the preamble, which reads:

> 18. A delivery vehicle operable with a material handling system having *a guide system comprising a track positioned along a plurality of destination areas*, wherein the delivery vehicle comprises:
>
> . . . .

Id. col. 21 l. 30–col. 22 l. 18 (emphasis added).

HC Robotics manufactures and imports warehouse automation products, including the Omnisort Gen 2, to the United States. The Omnisort Gen 2 is an automated system designed to sort items into bins that are disposed on a wall, commonly referred to as an "automated put wall" system. The system contains two parallel walls of bins to hold packages and uses a robotic vehicle to deliver packages to the appropriate bin. Directly between the bin walls are layers of stationary horizontal track and on either end are lift structures, or elevators, to allow the delivery vehicle to travel vertically within the system. During operation, the vehicle takes in a package, travels via the horizontal track to the ascending lift, travels to the height of its destination bin using the lift, traverses the horizontal track to its destination bin, delivers its package, and then returns to the staging area via the descending lift. The system operates as a one-way loop where the vehicle ascends via the lift on one end of the system and descends via the lift on the opposite end. *See* HC Robotics Br. 16–23 (depicting the operation of the system in a series of figures and images).



Id. at 26 (figure from an Omnisort Gen 2 installation manual depicting the overall system). In the above figure, the lifts can be seen on the same plane as the horizontal tracks directly between the bin walls, but there are no bins directly on either side of the lifts and the vehicle cannot deliver a package into a bin while on the lift.

OPEX filed a complaint with the Commission alleging that the Omnisort Gen 2 infringed the '194 patent, the '505 patent, and two additional patents not at issue on appeal. The Commission instituted an investigation. During the investigation, the administrative law judge ("the ALJ") expressly construed "track" for the '194 patent and the '505 patent, and "drive system" and "guide system" for the '505 patent. *See Initial Determination*, 2023 WL 3093548, at *14–26. In all three instances, the ALJ rejected HC Robotics' narrowing constructions and applied the plain and ordinary meaning to the terms. *Id.* The ALJ did not expressly construe "between" for the '194 patent; however, during his infringement analysis of claim 1, he did determine that "between" was not to be interpreted so narrowly as to require tracks exclusively contained "within the three-dimensional volume constrained by the outline of the array of bins," as suggested by HC Robotics, because such a narrow construction would read the preferred embodiment out of the claims of the '194 patent. *Id.* at *33.

Applying the above constructions, the ALJ initially determined that the Omnisort Gen 2 infringed claims 1 and 5 of the '194 patent, *id.* at *30–37, and claims 1–5, 7–9, 11–13, 15, 16, and 18–20 of the '505 patent, *id.* at *41–50. The Commission reviewed only the economic prong of the initial determination, and therefore the initial determination that Omnisort Gen 2 infringed both the '194 and '505 patents became the final determination of the Commission. *See Commission Opinion*, 2023 WL 5426449, at *3. On review, the Commission determined that there had been a violation of Section 337, *id.* at *1, *29, and

thus issued a limited exclusion order as well as cease and desist orders, *see* J.A. 53–74.

HC Robotics timely appealed, and we have jurisdiction pursuant to 28 U.S.C. § 1295(a)(6).

DISCUSSION

Our review of the Commission's final determination of a Section 337 violation is governed by the standards of the Administrative Procedure Act. 19 U.S.C. § 1337(c); *Ajinomoto Co. v. ITC*, 597 F.3d 1267, 1272 (Fed. Cir. 2010). Under 5 U.S.C. § 706, we review the Commission's legal determinations *de novo* and its factual findings, including those adopted from the ALJ's initial determinations, for substantial evidence. *Guangdong Alison Hi-Tech Co. v. ITC*, 936 F.3d 1353, 1358–59 (Fed. Cir. 2019). Claim construction is a question of law and therefore reviewed *de novo*, and it includes, when appropriate, any implicit construction of a claim limitation as part of the Commission's infringement analysis. *See Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1059 (Fed. Cir. 2009) (explaining that "although the Commission did not explicitly address the 'monitoring current' limitation under its claim construction section, it effectively construed the limitation. We thus address the parties' dispute regarding this limitation as a claim construction issue.").

On appeal, HC Robotics argues that the Commission erred in its construction of "between" and "track" with respect to the '194 patent and in its construction of "drive system" and "guide system" with respect to the '505 patent. It argues that under a proper construction, the undisputed structure and operation of the Omnisort Gen 2 cannot infringe. HC Robotics does not dispute infringement of the '194 patent or the '505 patent under the Commission's construction. We address each claim construction argument in turn.

I.

The Commission did not expressly construe the term "between" but did address its scope in determining that the Omnisort Gen 2 satisfies the limitation of claim 1 of the '194 patent that requires:

> wherein *the track is positioned between* the first series of columns and the second series of columns *so that a delivery vehicle can move vertically between* the first series of columns and the second series of columns, ...

See Initial Determination, 2023 WL 3093548, at *32–35 (citing '194 patent col. 19 ll. 48–52) (emphasis added).

The Commission then found that the lifts were positioned "between" the two vertical planes established by the two arrays of bins "so that" the vehicle could move vertically between the arrays as required by the claim. *Id.* at *33. Applying the ordinary meaning of "between," the Commission found that the lifts were between the bins despite extending beyond them because they were part of the vertical loop track sandwiched between the walls of the bins. The Commission analogized the vertical loop formed by the horizontal sections of track and the lifts to a piece of lettuce between two slices of bread in a sandwich, where the edges of the lettuce extend beyond the edges of the bread. *Id.* The Commission further noted that a narrower construction—requiring the lifts to be located "within the three-dimensional volume constrained by the outline of the array of bins"—would read out the preferred embodiment of the '194 patent disclosed in Figure 1 because portions of the track, such as upper rail 135 and lower rail 140, are located above and below the columns of bins, respectively. *Id.*

HC Robotics argues that the Commission's construction of "between" fails to comport with the ordinary meaning of the term, the specification, and the prosecution

history. As a result of that error, HC Robotics' argument continues, the Commission erred in finding that the lifts of the Omnisort Gen 2 were "between" the first series of columns and the second series of columns because they were not within the physical space separating the columns. We disagree.

According to HC Robotics, the ordinary meaning of "between" is "the space separating two objects," HC Robotics' Br. 35 (offering an example dictionary definition). HC Robotics alleges that the Commission improperly rewrote claim 1 by broadening the definition of "between" to include the "two imaginary planes extending out beyond the edges of the first series of columns and the second series of columns." *Id.*

But HC Robotics' dictionary definition actually supports the Commission's interpretation. As part of the sentence defining between, the dictionary definition provides an example—"between New York and Chicago"—that clearly contemplates including planes extending out beyond the space directly separating two objects. This understanding seems correct. Indeed, as another example, if one were to say that they sat between first and home plate at a baseball game, one would not assume they were literally sitting in the infield on the first base line. We therefore disagree with HC Robotics' argument relating to the ordinary meaning of "between."

HC Robotics further argues that the specification supports its narrower construction of "between." Specifically, HC Robotics points to sections of the specification that "repeatedly describe the vehicle traveling vertically downward in the space separating the bin columns." *Id.* at 36 (citing '194 patent col. 3 ll. 15–21, col. 5 ll. 45–50, col. 14 ll. 34–39). According to HC Robotics, the Commission erred in its determination that the narrower definition of "between" would read the preferred embodiment of Figure 1 out of the claim. *Id.* at 40. HC Robotics argues

that "the track positioning element of claim 1 is focused on the portion of the track that enables the vertical movement of the vehicle" and therefore the location of the horizontal upper rail is immaterial. *Id.* at 40. Again, we disagree.

First, the "track positioning" element of claim 1 is not solely focused on the vertical movement of the vehicle as argued by HC Robotics. Claim 1 refers broadly to "a track for guiding the delivery vehicles to the destination areas" as a whole rather than any specific portion of said track. *See* '194 patent col. 19 ll. 48–49. The specification supports a broad understanding of "track" by referring to the "track 110" as including both horizontal legs 135 and 140 and vertical legs 130. *Id.* col. 3 ll. 5–9. Additionally, claims that depend from claim 1 go on to further narrow "the track" to include specific configurations of vertical and/or horizontal sections of track; therefore, "the track" of claim 1 must be interpreted broadly enough to not exclude the elements of the dependent claims. *See e.g.*, *id.* col. 20 ll. 1–4. With that in mind, the claim continues "wherein the track is positioned between the first . . . and the second series of columns *so that* a delivery vehicle can move vertically between the first . . . and the second series of columns." *Id.* col. 19 ll. 49–52. All that is required is for the track to be positioned "so that" the vehicle can move vertically between the columns. There is no requirement for any specific configuration of track or that the entirety of the track is positioned in the space directly separating columns of bins, as required by HC Robotics' proposed construction of "between."

Looking to the preferred embodiment described in Figure 1, that distinction becomes clearer. As we have consistently held, an interpretation of a claim that excludes the preferred embodiment "is rarely, if ever, correct and would require highly persuasive evidentiary support." *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583–84 (Fed. Cir. 1996). The specification describes

Figure 1 as including "horizontal upper rail 135" and "horizontal lower rail 140," which are located above and below the columns of bins respectively. Applying HC Robotics' narrow construction of "between," *i.e.*, "the space separating two objects," would mean these horizontal legs of the track are not "*between* the first series of columns and the second series of columns" as described in the claim. In fact, HC Robotics' own expert witness admitted as much. *See* J.A. 10739 (Dr. Howle agreeing that upper rail 135 and lower rail 140 would not be "between" the columns of bins under HC Robotics' proposed interpretation of "between"); *see also Initial Determination*, 2023 WL 3093548, at *34. Under HC Robotics' construction, the preferred embodiment of Figure 1 would be excluded from claim 1 because those horizontal sections of the track would not be "between" the first and second series of columns. HC Robotics has failed to offer the "highly persuasive" evidence to support such a conclusion.

Finally, with respect to the construction of "between," HC Robotics argues that the prosecution history of the '194 patent further confirms its limiting construction of between. *See* HC Robotics' Br. 37. HC Robotics points to the Patent Office's rejection of pending claim 1 as anticipated by U.S. Patent Application Publication No. 2005/0047895 ("Lert") where "OPEX amended claim 1 to add a limitation requiring that the track be positioned so that 'a delivery vehicle can move vertically between' the first and second series of columns." *Id.* (citing J.A. 497, 518–19). According to HC Robotics the accompanying remarks distinguishing the amended claim confirm that the track must be positioned to allow the vehicle to move vertically in the space separating the two series of columns, and not beyond the edges of those columns. *Id.* at 37–38 (citing J.A. 527–28).

HC Robotics is arguing for a construction of "between" that is narrower than the plain and ordinary meaning of the term as read in light of the specification, as discussed

above. But the prosecution history may only limit the term if there was "a clear and unmistakable disavowal of scope during prosecution." *See Purdue Pharma L.P. v. Endo Pharms. Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006). In distinguishing Lert, OPEX noted that "the Lert '895 system is like a parking garage" where "the vehicle cannot move vertically to store or retrieve an item that is in a column above or below the level that the vehicle is on. The vehicle must drive away from the destination area and over to a ramp." J.A. 527. The remarks then contrast a variety of features of the claimed system, including that the "track is located between the two series of columns so that the vehicle can move vertically between" the columns, that "the system may include a front [and rear] series of columns of destination areas," that the vehicle "can move in the space between the front and rear columns," and that when stopped at a point along the track, the vehicle can transfer an item forwardly or rearwardly to a destination area. J.A. 528. It then notes that "Lert 895 does not teach or suggest a system having such *features*." *Id.* (emphasis added).

Having referenced a multitude of distinctions between Lert and the claimed inventions, it is difficult to read any one of these features as a clear and unmistakable waiver of scope necessary to limit the construction of "between." *See Comput. Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1378 (Fed. Cir. 2008) ("a multitude of distinctions may serve to make any single distinction in the group less clear and unmistakable as the point of distinction over prior art and as a critical defining point for the invention as a whole"). Furthermore, a person of ordinary skill in the art could reasonably read the prosecution history as referring to loading column 300 in Figures 2–4 as a vertical track between the first and second series of columns. As shown in Figures 3 and 4, for example, loading column 300 is physically between the first series of columns 190 and the second series of columns 190 as that term is

broadly understood in the baseball example above. Moreover, the specification describes loading column 300 as having a vertical vehicle track, '194 patent col. 13 ll. 40–46, and the prosecution history says "[t]he vehicle track is located between the two series of columns" and refers to Figures 2–4, J.A. 528. HC Robotics' arguments regarding the prosecution history are therefore unpersuasive. Because we find no basis to limit the scope of "between" to "the space between two objects" as argued by HC Robotics, we see no error in the Commission's finding that the Omnisort Gen 2 satisfied the relevant limitations of claim 1 of the '194 patent.

Woven throughout its arguments regarding the proper construction of "between," HC Robotics also seems to argue that the claim requires that the vehicle "can deliver an item to a destination area during its vertical path of travel." *See* HC Robotics Br. 35–36, 38, 43. However, HC Robotics did not appear to make this argument to the Commission, *see* J.A. 11061–62; J.A. 11507–22; J.A. 12990–13013; J.A. 13348; J.A. 13587–93, the Initial Determination didn't address it, *see Initial Determination*, 2023 WL 3093548, at *35–36, and, in any event, we see no basis to support such a requirement. The relevant portion of the claim merely requires that "when a delivery vehicle is stopped at a point along the track, the transfer mechanism can transfer an item forwardly [and] rearwardly" and nothing more. '194 patent col. 19 ll. 53–59. As such, we decline to adopt HC Robotics' claim construction.

II.

The Commission expressly construed the term "track" as applied to both the '194 patent and the '505 patent to have its plain and ordinary meaning such that it would be satisfied by a system that "defines a pathway, course, or route." *See Initial Determination*, 2023 WL 3093548, at *24–26. In doing so, it rejected HC Robotics' proposed construction of "[o]ne or more linear sections comprising

components that interact with a drive system." *See id.* at *24. On appeal, HC Robotics now argues that "track," in the context of the '194 patent, should be limited to "a fixed structure that guides a moving vehicle." HC Robotics' Br. 43. It argues that the Commission erred in construing "track" to encompass a movable platform that lifts up a stationary vehicle, such as the lifts of the Omnisort Gen 2. Because we find that these arguments fail on the merits, we need not determine if they were forfeited.

The relevant portion of claim 1 of the '194 patent reads:

> a track for guiding the delivery vehicles to the destination areas, wherein the track is positioned between the first series of columns and the second series of columns so that a delivery vehicle can move vertically between the first series of columns and the second series of columns, and wherein when a delivery vehicle is stopped at a point along the track, the transfer mechanism can transfer an item forwardly between the vehicle and a destination area in the first series of columns and the transfer mechanism can transfer an item rearwardly between the vehicle and a destination in the second series of columns;

'194 patent col. 19 ll. 48–59.

HC Robotics argues that the plain language of claim 1 implies that a "track" is a fixed structure that guides a moving vehicle. For example, it argues that "'guiding' connotes a stationary structure that affects a moving vehicle's direction of travel and differs from the act of 'carrying' or 'lifting' that is performed by a movable platform." HC Robotics' Br. 44; *see also id.* at 45 (arguing that "a delivery vehicle can move vertically" connotes a fixed structure that permits vehicle movement); *id.* at 45 (arguing that a "vehicle stopped at a point along the track" connotes a stationary structure because a vehicle

could not stop while being carried upward on a lift); *id.* at 46 (arguing that the requirement that "each vehicle" include "a power source for driving the vehicle" does not contemplate stationary vehicles conveyed upward on a lift). By arguing that these limitations merely "connote" certain additional requirements, HC Robotics tacitly admits that the express language of the claims does not. HC Robotics appears to be arguing that claim 1 should be read with a variety of additional negative limitations, such as "a [fixed] track for guiding [not lifting or carrying] the delivery vehicles to the destination areas." We see no justification in the claim language for adding these additional "connotated" restrictions onto the claim.

HC Robotics argues that its new construction of "track" is supported by the specification because "[t]he only description of a track in the specification is a fixed structure that guides a moving vehicle." HC Robotics' Br. 46. However, this argument is fundamentally flawed as it is well established that "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using 'words or expressions of manifest exclusion or restriction.'" *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (internal citations omitted); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc) ("[W]e have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.").

Nothing in claim 1 expresses a clear manifestation to exclude movable platforms from the ordinary meaning of "track." Furthermore, the statement that the "only description of a track in the specification is a fixed structure" is inaccurate. The specification expressly states that "[t]he track 110 includes gates 180," '194 patent col. 3 ll. 16–17, and then goes on to describe the gates as a

movable feature that "pivots between a first position and a second position," *id.* at col. 6 ll. 40–41. HC Robotics' argument that the specification supports limiting the "track" to a fixed structure is therefore unpersuasive. *See also Initial Determination*, 2023 WL 3093548, at *24 ("Respondents seek to exclude the curved portions of the track referred to in the specification as 'intersections,' *and the pivotable sections referred to as 'gates.*'" (emphasis added)).

Next HC Robotics argues that the prosecution history from two related patents, U.S. Patent 7,861,844 ("the '844 patent") and U.S. Patent No. 9,687,883 ("the '883 patent"), supports interpreting "track" as a fixed structure. During prosecution of the '844 patent, the Examiner rejected pending claim 34 as anticipated by U.S. Patent No. 3,800,963 ("Holland"). J.A. 841. In distinguishing Holland, OPEX described the Holland system as "a large [] material handling system that simply moves back and forth along a horizontal t[r]ack on the ground [where] a carriage on the vehicle is raised to the proper height by a plurality of cables." J.A. 860. OPEX distinguished its own invention by stating that it provided "a plurality of vehicles that are configured to follow a track system along vertical and horizontal directions" in addition to several other features. J.A. 861. According to HC Robotics, OPEX made a clear distinction between a track and a carriage that lifts up a stationary vehicle via cables with the above statements. We disagree.

First, the description of Holland states that it is *a carriage on the vehicle* being lifted by the cables, and not a vehicle on a carriage being lifted by cables. Furthermore, the description of the claimed inventions states that a plurality of vehicles follows "a track system along vertical and horizontal directions." J.A. 861. Nothing in these statements expressly excludes a lift or elevator from being part of the "track system"; in fact, the primary distinction seems to be the "releasable retainers" described in the

subsequent sentences. *See id.* The statements regarding Holland thus do not rise to the level of "a clear and unmistakable disavowal of scope during prosecution." *See Purdue Pharma*, 438 F.3d at 1136.

During the prosecution of the '883 patent, the Examiner rejected pending claim 1 as anticipated by U.S. Patent No. 6,149,366 to Deandrea ("Deandrea"). J.A. 1008. OPEX argued that "Deandrea is directed to a system that includes a plurality of horizontal tracks and a plurality of elevators to raise and lower the vehicles between the different levels of the system. The Deandrea system does not include vertical tracks which the vehicles travel along to move from level to level." J.A. 1061. HC Robotics argues that OPEX made "a clear distinction between a track and an elevator that lifts a stationary vehicle" with the above statements. Generally, "a prosecution disclaimer will only apply to a subsequent patent if that patent contains the same claim limitation as its predecessor." *Regents of Univ. of Minnesota v. AGA Med. Corp.*, 717 F.3d 929, 943 (Fed. Cir. 2013). Here the claim of the '883 patent was directed to the narrower subject matter of "a drive element that interacts with . . . the vertical track sections." J.A. 1051. Claim 1 of the '194 patent contains neither the "drive system" nor the "vertical track sections" described in the identified prosecution history. It is therefore of little value in understanding the more broadly described "track [] positioned … so that a delivery vehicle can move vertically" of claim 1. We find HC Robotics arguments with respect to the prosecution history unpersuasive.

Having reviewed HC Robotics' arguments with respect to the '194 patent, we see no reversible error in the Commission's interpretation of the plain and ordinary meaning of "between" and "track" as reflected in its infringement analysis. HC Robotics does not dispute the Commission's infringement finding under its construction,

see HC Robotics Br. 53–54, and we therefore affirm the Commission with respect to the '194 patent.

III.

The Commission expressly construed both "drive system" and "guide system" of the '505 patent to have their plain and ordinary meaning. In doing so, it rejected HC Robotics' proposed construction of "drive system" as a "pinion gear configured to mate with engagement elements," and "guide system" as a "component configured with pinion gear teeth configured to mate with the drive system." *Initial Determination*, 2023 WL 3093548, at *14–23. Claim 1 of the '505 patent reads, in relevant part:

> a drive system cooperable with the guide system to guide the vehicle to one of the destination areas, wherein the drive system is configured to maintain the orientation of the vehicle relative to the horizon as the vehicle changes from a horizontal direction of travel to a vertical direction of travel.

'505 patent col. 20 ll. 24–29.[2]

On appeal, HC Robotics again argues that neither the Commission's plain and ordinary meaning nor its own earlier proposed construction is proper. Rather, it now argues that the "drive system cooperable with the guide system" limitation should "be limited to a system in the vehicle that propels the vehicle forward along a fixed structure that guides the moving vehicle while maintaining the orientation of the vehicle as it changes from a horizontal to a vertical direction of travel." HC Robotics

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[2] Claim 18 of the '505 patent contains the identical limitation. *See* '505 patent col. 22 ll. 13–18.

Br. 55. According to HC Robotics, the Commission erred in interpreting the above limitation to "encompass stationary wheels on a stationary vehicle being carried upward or downward by a lift." *Id.* at 56. Because we find that these arguments fail on the merits, we need not determine if they were forfeited.

According to HC Robotics, the plain language of claims 1 and 18 requires that the "drive system" is part of the vehicle and is the only source of motive force for the vehicle, whereas the guide system is a fixed structure that guides the direction of travel of the vehicle, without "forcibly convey[ing] a stationary vehicle upward or downward." *Id.* at 56–57. We disagree.

The claim requires two things of the "drive system," that it is "cooperable with the guide system to guide the vehicle to one of the destination areas" and that it is "configured to maintain the orientation of the vehicle relative to the horizon as the vehicle changes from a horizontal direction of travel to a vertical direction of travel." It does not require that the "drive system" provide the only motive force to the vehicle, and it does not require that the drive system is powering the vehicles' movement during the transition from a horizontal direction of travel to a vertical direction. The claim does not prescribe how the drive system and guide system interact, simply that they are cooperable to guide the vehicle to one of the destination areas.

HC Robotics again argues that the claim terms should be limited to the preferred embodiments disclosed in the specification. *See Id.* at 58–60. We again reject that argument for reasons similar to those discussed with respect to "track." *See Liebel-Flarsheim*, 358 F.3d at 906.

HC Robotics again points to the prosecution history from the related '844 and '883 patents. As noted earlier, during prosecution of the '844 patent, the Examiner rejected pending claim 34 as anticipated by Holland. J.A.

841. HC Robotics argues that the "drive system" element recited by pending claim 34 was nearly identical to the "drive system" limitation of claims 1 and 18 of the '505 patent. HC Robotics Br. 60 (citing J.A. 849). It argues that OPEX distinguished Holland over the claimed system because Holland was "raised to the proper height by a plurality of cables," and thus demonstrates "that such a drive system did not encompass a stationary vehicle being lifted up by a moveable platform via cables." *Id.* at 60–61. Again, we disagree. The description of Holland offered by OPEX states that "*a carriage on the vehicle* is raised to the proper height by a plurality of cables," and not a vehicle on a carriage is being lifted by cables. *See* J.A. 861. Again, these statements cannot be considered a "clear and unmistakable" disavowal of claim scope.

Finally, HC Robotics again refers to the rejection over Deandrea in the prosecution of the '883 patent. It argues that OPEX distinguished Deandrea over the claimed invention based on the former's use of elevators to carry a vehicle vertically. *Id.* at 62. However, the distinction from the claimed system was that the "Deandrea system [did] not include vertical tracks which the vehicles travel along to move from level to level." J.A. 1061. The referenced "vertical track sections" were expressly claimed in the '883 patent, J.A. 1051, and no such element exists in the limitations of claim 1 and 18 of the '505 patent. We therefore find HC Robotics' arguments with respect to the prosecution history unpersuasive.

Having reviewed HC Robotics' arguments with respect to the '505 patent, we see no reversible error in the Commission's interpretation of the plain and ordinary meaning of "drive system" and "guide system" as reflected in its infringement analysis. HC Robotics does not dispute the Commission's infringement finding for the '505 patent under the Commission's construction. *See* HC Robotics Br. 63–70.

CONCLUSION

We have considered HC Robotics remaining arguments and find them unpersuasive or forfeited. For the foregoing reasons, we *affirm* the decision of the Commission.

AFFIRMED