IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of:	Brian James Petersen et al.	
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Issue Date:	August 29, 2017	
Appl. Serial No.:	14/606,794	
Filing Date:	January 27, 2015	
Title:	SEED CARRIER WITH PIVOTING CONVEYOR	

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PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT NO. 9,745,123 PURSUANT TO 35 U.S.C. §§ 311–319, 37 C.F.R. § 42

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EXHIBITS

PK-1001	U.S. Patent No. 9,745,123 to Petersen et al. ("the '123 patent")
PK-1002	Excerpts from the Prosecution History of the '123 Patent ("the Prosecution History")
PK-1003	Declaration of Douglas S. Prairie
PK-1004	*Operator's Manual, 7000 Series Air Cart*, Morris, Sept. 2004 ("Morris")
PK-1005	U.S. Patent No. 5,888,044 ("Baskerville")
PK-1006	U.S. Patent No. 7,500,817 ("Furrer")
PK-1007	*Assembly Manual: Part Number 80504785 REV A*, Hiniker Company, Jan. 2001 ("Hiniker Manual")
PK-1008	Screen capture of the archived version of a Hiniker Company webpage captured by the Internet Archive on March 14, 2006, *available at* https://web.archive.org/web/20060314112127/http://www.hiniker.com/ag_products/4800features.htm ("Hiniker Webpage")
PK-1009	Screen captures of the archived version of Hiniker Company's website captured by the Internet Archive on March 14, 2006, *available at* https://web.archive.org/web/20060314110919/http://www.hiniker.com/index.html, https://web.archive.org/web/20060314110910/http://www.hiniker.com/ag_products/index.htm, and https://web.archive.org/web/20060314111921/http://www.hiniker.com/ag_products/4800s.htm
PK-1010	Canadian Patent No. CA 2462001 C ("Cochran")

PK-1011	U.S. Pub. No. 2008/0173521 ("Hitch")
PK-1012	Screen captures of the archived version of Morris Industries Ltd.'s website captured by the Internet Archive on August 6, 2006, *available at* https://web.archive.org/web/20060806015900/http://www.morris-industries.com:80/index.php and https://web.archive.org/web/20060806172322/http://www.morris-industries.com/product.php?current_lang=en&product_id=1
PK-1013	Excerpts from the Prosecution History of U.S. Patent Nos. 8,967,940 ("the '940 Prosecution History")
PK-1014	Excerpts from the Prosecution History of U.S. Patent No. 8,221,047 ("the '047 Prosecution History")
PK-1015	Excerpts from the Reexamination Proceedings of the '047 Patent ("the '047 Reexamination")
PK-1016	Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, Katherine K. Vidal (USPTO June 21, 2022), *available at* https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf
PK-1017	Declaration of June Ann Munford
PK-1018	Stipulation
PK-1019	Declaration of Mark Miller
PK-1020	U.S. Patent Publication No. 2005/0158155 ("Johnson")
PK-1021	U.S. Patent No. 6,994,039 ("Beck")
PK-1022	U.S. Patent No. 7,500,814 ("Meyer")

LISTING OF CHALLENGED CLAIMS

Claim 10	
[10.pre]	A seed or grain tender comprising:
[10.1]	a main hopper having an upper portion with a main hopper intake opening and a lower portion with a main hopper discharge;
[10.2]	a support arm having a first end proximate said lower portion of said main hopper and a second end;
[10.3]	wherein said support arm is pivotable about a first axis of rotation proximate said first end of said support arm to cause said support arm to be movable between an operating position wherein said support arm extends outwardly relative to said main hopper and a storage position wherein said support arm is folded inwardly towards said main hopper in relation to said operating position,
[10.4]	said support arm further being pivotable about a second axis of rotation proximate said first end of said support arm to cause an elevation of said second end of said support arm to be adjustable;
[10.5]	a conveyor having a longitudinal axis and first and second ends, a conveyor hopper at said first end, a conveyor discharge at said second end, and an internal elevator for moving seed or grain from said conveyor hopper to said conveyor discharge; and
[10.6]	said second end of said support arm being coupled with said conveyor between said first and second conveyor ends,
[10.7]	said conveyor being rotatable about a third axis of rotation proximate said second end of said support arm that is not parallel to said conveyor longitudinal axis, and
[10.8]	said conveyor being rotatable in relation to said second end of said support arm about said third of axis of rotation between an unloading position wherein said conveyor hopper is disposed below said main hopper discharge to receive agricultural product from said main hopper and a loading position wherein said conveyor discharge is disposed above

	said intake opening of said main hopper to dispense agricultural product into said main hopper.
Claim 11	
[11]	The seed or grain tender of claim 10, wherein said first axis of rotation extends through said main hopper discharge.
Claim 12	
[12]	The seed or grain tender of claim 10, wherein said second axis of rotation extends through said first end of said support arm.
Claim 13	
[13]	The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor.
Claim 14	
[14]	The seed or grain tender of claim 10, wherein said third axis of rotation extends through said second end of said support arm.
Claim 15	
[15]	The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor and said second end of said support arm.
Claim 16	
[16]	The seed or grain tender of claim 10, wherein said third axis of rotation is oriented at an angle having a vertical component.
Claim 17	
[17]	The seed or grain tender of claim 16, wherein said first axis of rotation is vertical.
Claim 18	
[18]	The seed or grain tender of claim 17, wherein said second axis of rotation is horizontal.

Claim 19	
[19]	The seed or grain tender of claim 10, wherein said second end of said support arm is coupled with said conveyor at an approximate center of gravity of said conveyor.
Claim 20	
[20]	The seed or grain tender of claim 10, further comprising a hydraulic piston extending at an acute angle relative to a horizontal plane to connect with a portion of said support arm spaced from said second axis of rotation.
Claim 21	
[21]	The seed or grain tender of claim 10, further comprising a stand coupled with said first end of said conveyor and movable between a stowed position allowing said conveyor hopper to be positioned below said main hopper discharge when said conveyor is in said unloading position and an extended position supporting said conveyor hopper above the ground when said conveyor is in said loading position.

Par-Kan Company, LLC ("Petitioner") petitions for IPR under 35 U.S.C. §§ 311–319 and 37 C.F.R. § 42 of claims 10–21 of U.S. Patent 9,745,123. As explained below, the challenged claims would have been obvious. The Board should institute IPR and cancel the challenged claims.

I. REQUIREMENTS FOR IPR (37 C.F.R. § 42.104)

A. Grounds for Standing (37 C.F.R. § 42.104(a))

Petitioner certifies the '123 patent is available for IPR. This petition was filed within one year of service of a complaint against Petitioner in *Unverferth Mfg. Co. v. Par-Kan Co.*, 3:23-cv-00653 (N.D. Ind.). Nothing bars or estops Petitioner from requesting IPR.

B. Challenge and Relief Requested (37 C.F.R. § 42.104(b))

Petitioner requests IPR on the grounds below, which Mr. Prairie explains in his supporting declaration (Ex. PK-1003).

Ground	Claims	Basis
1	**10, 12–21**	§ 103 – Morris and Baskerville
2	**11**	§ 103 – Morris, Baskerville, and Furrer
3	**10–19**	§ 103 – Hiniker Manual, Hiniker Webpage, and Furrer (and, if necessary, Morris)
4	**20, 21**	§ 103 – Hiniker Manual, Hiniker Webpage, Furrer, and Baskerville

Each reference pre-dates the '123 patent's earliest possible effective filing date (February 15, 2007) and qualifies as prior art.

Reference	Date	Statute
Morris (Ex. PK-1004)	August 13, 2006 (published)	Pre-AIA § 102(a)
Baskerville (Ex. PK-1005)	March 30, 1999 (issued)	Pre-AIA § 102(b)
Furrer (Ex. PK-1006)	February 7, 2006 (filed)	Pre-AIA § 102(e)
Hiniker Manual (Ex. PK-1007)	January 2, 2001 (published)	Pre-AIA § 102(b)
Hiniker Webpage (Ex. PK-1008)	March 14, 2006 (published)	Pre-AIA § 102(a)

Morris is a manual for the Morris Industries Ltd. 7000 Series Air Cart that was published by August 13, 2006. Baskerville is a U.S. patent that issued March 30, 1999. Furrer is a U.S. patent that was filed February 7, 2006. Hiniker Manual is a manual for the Hiniker Company 4800 Series Air Seeder that was published January 2, 2001. Hiniker Webpage is a Hiniker Company webpage describing the features of the same product family and was published by March 14, 2006.

II. SUMMARY OF THE PATENT

The ’123 patent discloses a seed carrier 100 comprising a main hopper 105 for carrying seeds, conveyor 104 for conveying seeds, and support arm 102 for supporting the conveyor. Ex. PK-1001 at Abstract, 3:1–17. Support arm 102 is “pivotably coupled to a base” so it “is rotatable about a vertical axis.” *Id.* at 3:45–47. Similarly, conveyor 104 is “pivotably coupled with the support arm [102] by a

coupling 103" to "allow the conveyor to be rotated between [a seed] loading and unloading position." *Id.* at 3:7–9, 2:5–8.

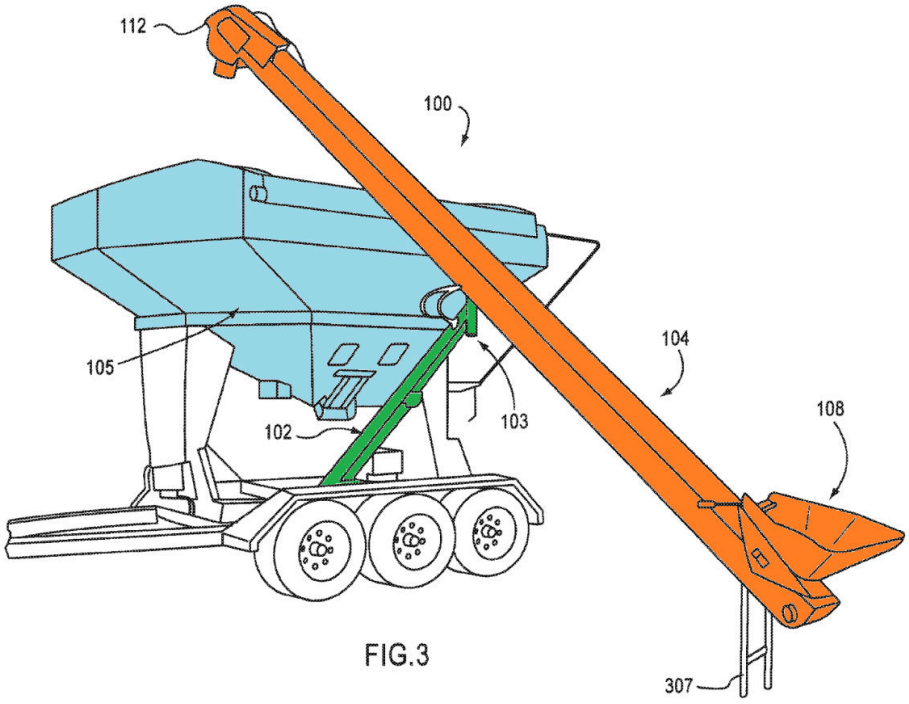


FIG.3

Id. at Fig. 3 (color added) (depicting conveyor 104 in loading position).

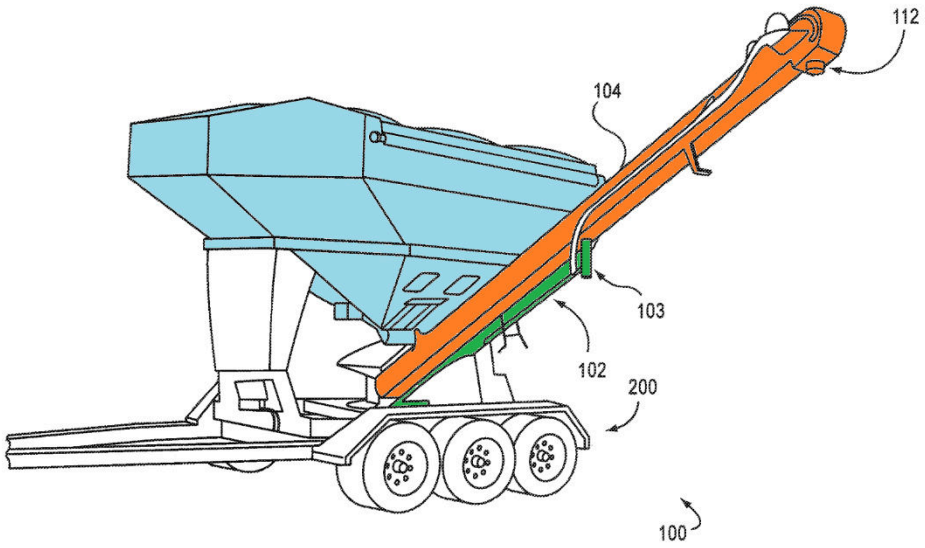


FIG.2

Id. at Fig. 2 (color added) (depicting conveyor 104 in unloading position).

III. CLAIM CONSTRUCTION

For this proceeding only, Petitioner submits the Board need not construe any terms to address the identified grounds. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011). Petitioner may respond to any constructions offered by Patent Owner or adopted by the Board. *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1383 (Fed. Cir. 2023).

IV. LEVEL OF ORDINARY SKILL IN THE ART

A skilled artisan would have had at least a Bachelor of Science in mechanical engineering, agricultural engineering, or a related discipline, with at least two years' experience in a field related to agricultural equipment. Ex. PK-1003 ¶ 25. More education could substitute for work experience, and vice versa. *Id.*

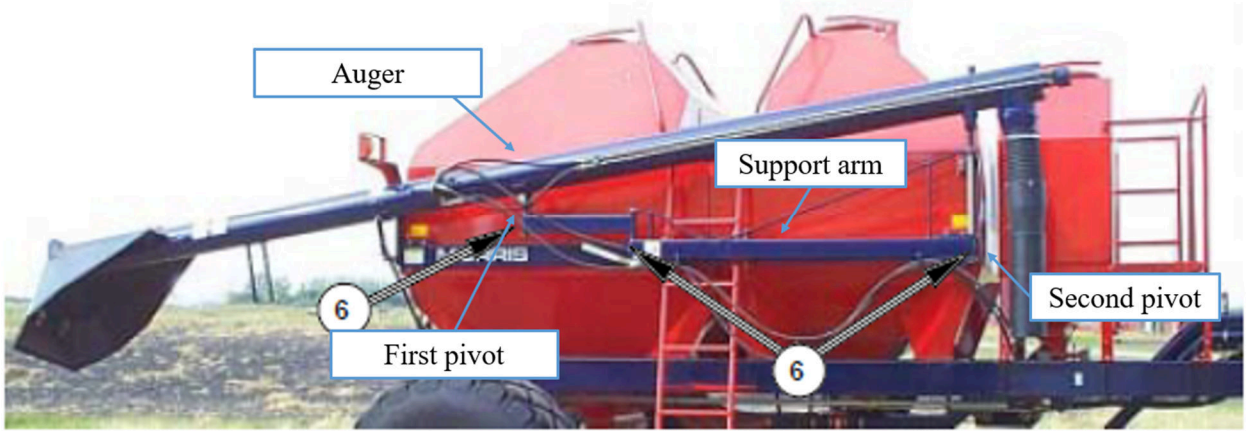
V. THE CHALLENGED CLAIMS WOULD HAVE BEEN OBVIOUS

A. Ground 1: Morris in View of Baskerville

1. Overview of Morris

Morris discloses a seed tender with an auger to transport seed and other product. Ex. PK-1004 at 5-25.[1] The auger is mounted to a support arm via a first pivot, and the support arm is mounted to the seed tender via a second pivot:

[1] All citations to Ex. PK-1004 refer to the page numbers originally printed on each page, not the page numbers Petitioner added.



Id. at 7-7 (blue annotations added).



Id. at 5-27.

The pivots allow the auger to rotate between the above-depicted unloading position, in which it discharges seed from the seed tender, to the below-depicted

loading position, in which it discharges seed into the seed tender:



Id. at 5-25.

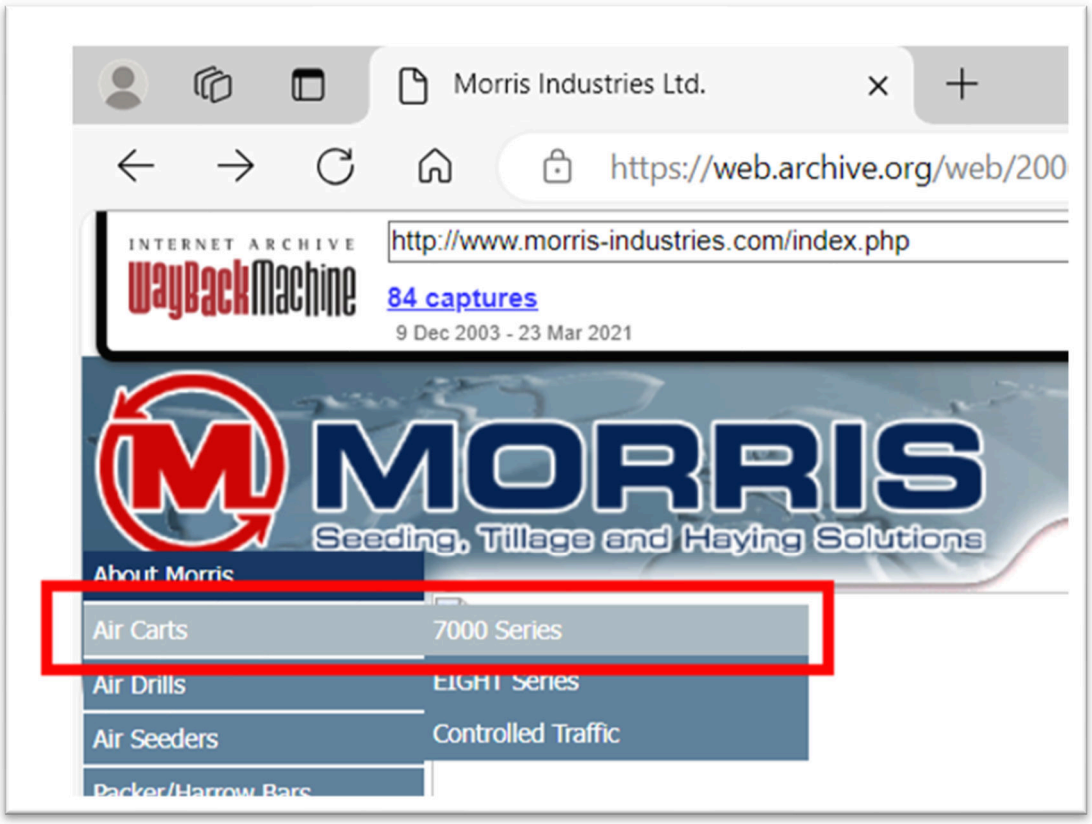
Morris was not before the examiner during prosecution of the '123 patent, *see* Ex. PK-1002, nor during prosecution of U.S. Patent Nos. 8,967,940 or 8,221,047, to which the '123 patent claims priority, *see* Exs. PK-1013, PK-1014.

(a) Morris Is Prior Art

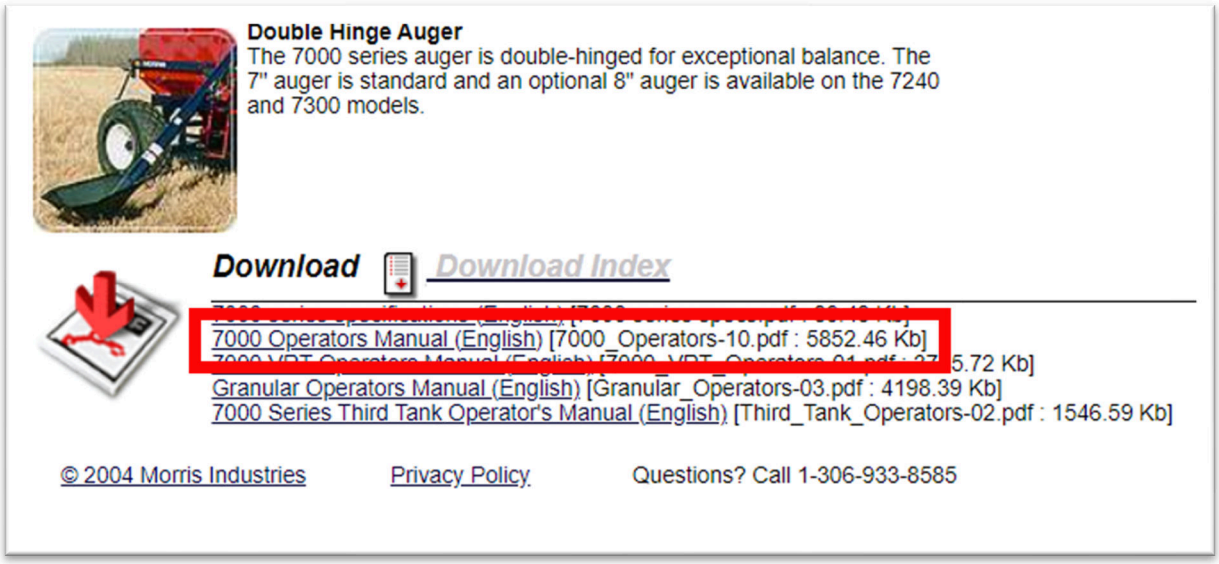
Morris is prior art under pre-AIA § 102(a) because it is a printed publication that was publicly accessible by August 13, 2006. On that date, the Wayback Machine captured Morris on Morris Industries Ltd.'s website. Ex. PK-1017 ¶¶ 6–7.

Morris was therefore publicly accessible by August 13, 2006. *Id.*; *see also* MPEP § 2128(II)(E) ("Prior art obtained via the Wayback Machine sets forth a prima facie case that the art was publicly accessible at the date and time provided in the time stamp."); *Valve Corp. v. Ironburg Inventions Ltd.*, 8 F.4th 1364, 1374–75 (Fed. Cir. 2021) ("District courts have taken judicial notice of the contents of webpages available through the Wayback Machine as facts that can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned." (cleaned up)).

Persons interested and ordinarily skilled in the art could easily have located Morris through reasonable diligence. Morris Industries was a well-known manufacturer of agricultural machinery. Ex. PK-1003 ¶ 37. A person interested in Morris Industries' 7000 Series Air Cart could have found Morris on the Morris Industries website by clicking the link on the homepage for the 7000 Series Air Cart and, on the next page, clicking the "7000 Operators Manual (English)" link at the bottom:



Ex. PK-1012 (annotated).



Id. (annotated).

2. Overview of Baskerville

Baskerville discloses a seed cart with a conveyor for loading and unloading seed into/from the cart. Ex. PK-1005 at Abstract. The conveyor is "pivotably attached" to a support arm ("telescoping boom 53") via a hinge 54, allowing the conveyor to pivot between loading and unloading positions. *Id.* at Figs. 4–5, 4:42–43. The support arm 53 is "pivotably attached to the upper sidewall 16 of the seed bin 11" so it can pivot vertically and horizontally. *Id.* at Fig. 3, 1:12–15, 4:53–56; *compare* Fig. 1 (showing support arm 53 in declined position)*, with* Fig. 2 (showing support arm 53 in inclined position). "The conveyor can thus be pivoted from side to side and lifted or lowered via the [support arm 53]." *Id.* at 1:14–15.

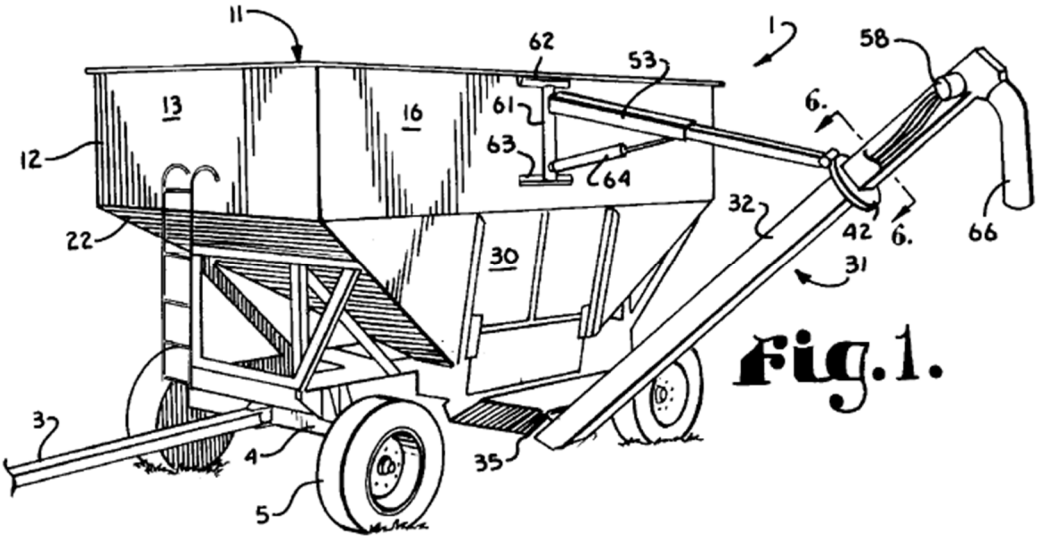
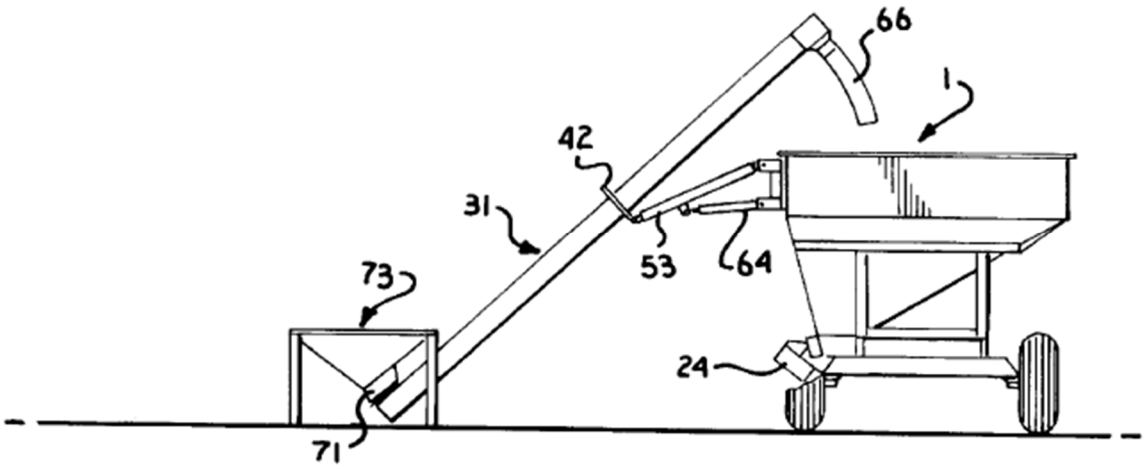


Fig.1.

Id. at Fig. 1 (depicting unloading position).



Id. at Fig. 5 (depicting loading position).

To assist with vertical pivoting, Baskerville discloses a "hydraulic lifting cylinder 64" (hydraulic piston) connected with the support arm:

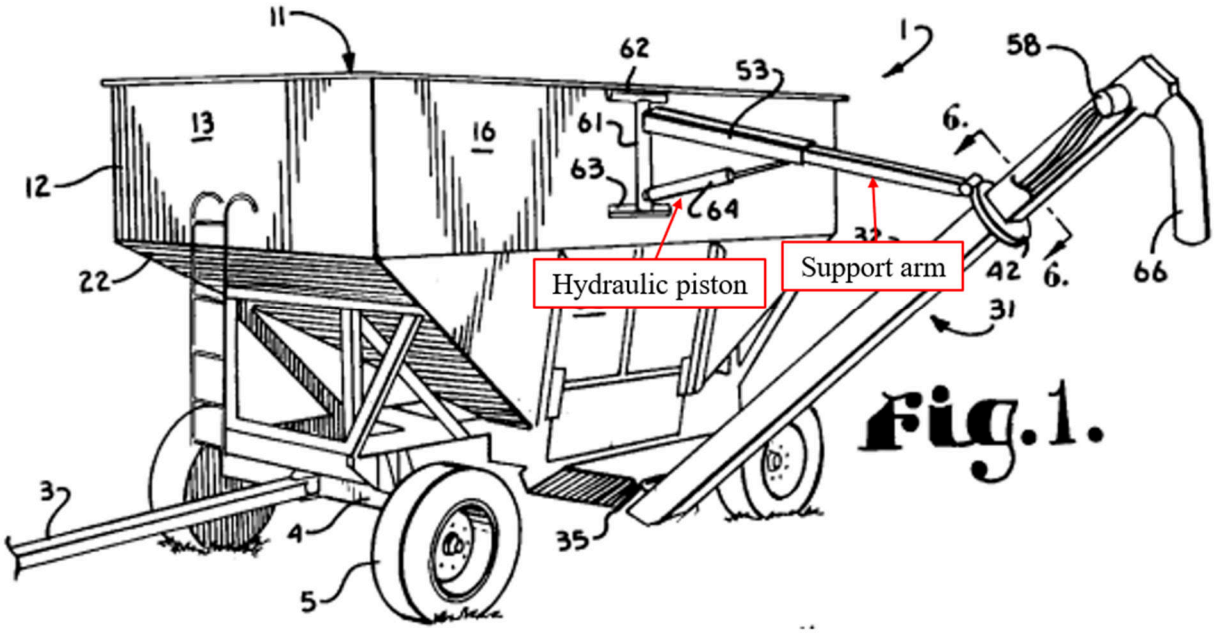


Fig. 1.

Id. at Fig. 1 (annotated); 4:53–58; *see also id.* at 5:25–41 (discussing system that "supplies and returns pressurized hydraulic fluid to the lifting cylinder 64").

Baskerville was before the examiner during prosecution of the '123 patent

and its ancestors. *See* Exs. PK-1002, PK-1013, PK-1014.

3. Reasons to Modify Morris in View of Baskerville

A skilled artisan would have been motivated to modify Morris's support arm in view of Baskerville so it can pivot vertically about its first end. Ex. PK-1003 ¶ 40. To enable this, a skilled artisan would have modified Morris's support arm to include a horizontal hinge and hydraulic piston, like in Baskerville. *Id.*

A skilled artisan would have looked to Morris and Baskerville because they are in the same field (seed or grain conveyor systems) and address the same problem (improved transport of seed or grain). *Id.* ¶ 41 (citing Ex. PK-1004 at 4-4 ("The optional hydraulic auger is designed to make loading and unloading product from the Air Cart tank very simple and easy."); Ex. PK-1005 at 1:54–56 ("[I]t is clear that a need exists for an improved bulk seed cart with a self contained conveyor which can be used both for loading and for unloading the seed cart.")).

A skilled artisan also would have recognized that having the support arm pivot both vertically and horizontally about its first end, as Baskerville discloses, provides advantages over having the support arm only pivot horizontally, as Morris discloses. Ex. PK-1003 ¶ 42. For example, per Baskerville, providing this degree of freedom "***allows discharged seed to be directed at virtually any desired location or height along the conveyor side of the seed cart***." Ex. PK-1005 at 5:1–5.[2] A

[2] All emphasis added.

skilled artisan would have readily recognized this feature's benefits. Ex. PK-1003 ¶ 42. It enables dispensing seed with precision into different types of planting equipment with different heights. *Id.* For short planting equipment, the user can lower the conveyor's discharge end to minimize spillage. *Id.* Conversely, the user can raise the conveyor's discharge end to reach tall planting equipment that Morris otherwise could not. Although Morris might allow some limited flexibility in the height of the discharge end (e.g., using a "spout extension," Ex. PK-1004 at 4-4), adding Baskerville's additional degree of freedom would enable a greater range of heights and provide more precise height control. Ex. PK-1003 ¶ 42. Because Baskerville touts the benefits of pivoting the support arm vertically, a skilled artisan would have been motivated to modify Morris's support arm to incorporate that degree of freedom.

A skilled artisan also would have been motivated to include a hydraulic piston like Baskerville's. *Id.* ¶ 43. Baskerville says its hydraulic piston helps lift and lower the conveyor, "dampen[s] any dramatic shifts in the position of the [support arm]," and allows "remotely control[ling] the lifting and lowering of the [support arm]," making the machine "much safer and more reliable." Ex. PK-1005 at 5:25–52. Because Baskerville touts the benefits of its hydraulic piston, a skilled artisan would have been motivated to include a similar piston in modifying Morris.

A skilled artisan would have reasonably expected success in making these

modifications. Ex. PK-1003 ¶ 44. These modifications would have been routine, requiring merely the addition of a horizontal hinge and hydraulic piston, like Baskerville discloses. *Id.* Moreover, those known components would be used according to their known functions (allowing rotation, actuating, and dampening) to achieve predictable results (the ability to lift and lower the conveyor remotely and dampen movement of the support arm). *Id.* Therefore, a skilled artisan would have reasonably expected success with these modifications.

4. Independent Claim 10

(a) [10.pre] A seed or grain tender comprising:

The preamble is not limiting. It neither "recites essential structure" nor "is necessary to give life, meaning, and vitality to the claim." *Shoes by Firebug LLC v. Stride Rite Children's Grp., LLC*, 962 F.3d 1362, 1367 (Fed. Cir. 2020) (citation omitted). Further, the body of the claim "defines a structurally complete invention" because it does not "depend[] on a . . . preamble phrase for antecedent basis." *Id.* (citation omitted). And the preamble merely "state[s] a purpose or intended use for the invention." *Id.* (citation omitted). Accordingly, the preamble is non-limiting.

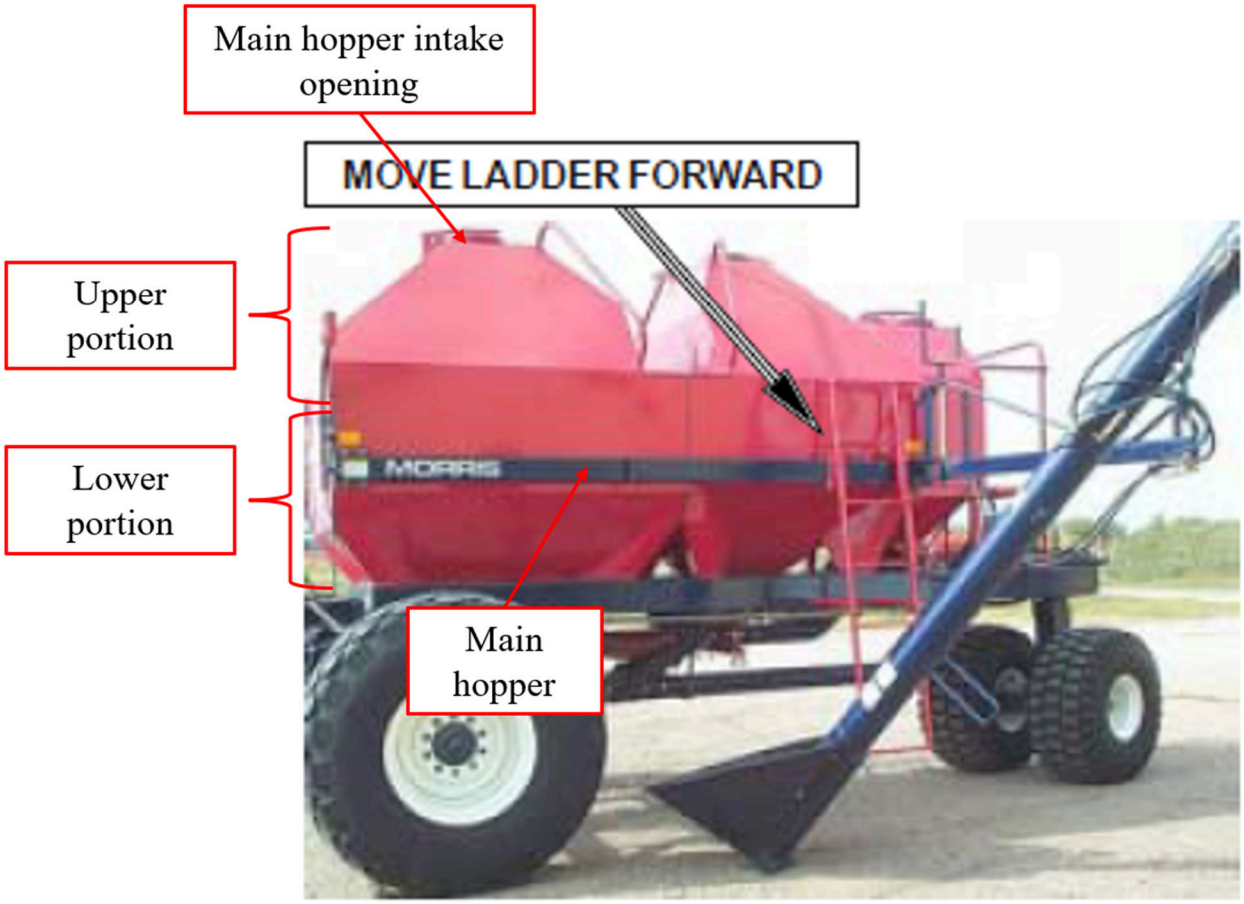
Regardless, the Morris-Baskerville combination discloses a seed tender. Ex. PK-1003 ¶ 47. The '123 patent equates "tender" with "carrier." Ex. PK-1001 at 1:46–47 (referring to "a seed tender or carrier"); *id.* at 1:18–19 ("The present invention relates generally to a conveyor system for a grain or seed carrier."); *id.* at

Abstract ("A seed carrier includes a main hopper coupled with a frame via leg members."); *id.* at Title ("Seed Carrier with Pivoting Conveyor"). Morris discloses an "Air Cart" having a tank for carrying seeds—i.e., a seed carrier. Ex. PK-1004 at 4-4, 5-4, 5-25. Thus, the Morris-Baskerville combination satisfies the preamble.

If Patent Owner argues the Morris-Baskerville combination is not a tender, it would have been obvious to apply the combination to a tender. Ex. PK-1003 ¶ 48. The Morris-Baskerville combination is analogous to a tender with additional components for planting seeds. *Id.* A skilled artisan would have been motivated to design a tender based on the Morris-Baskerville combination, but without the seed-planting components, to achieve the benefits discussed above (§ V.A.3). *Id.* A skilled artisan also would have reasonably expected success in doing so because it would merely require removing the seed-planting components. *Id.*

(b) [10.1] a main hopper having an upper portion with a main hopper intake opening and a lower portion with a main hopper discharge;

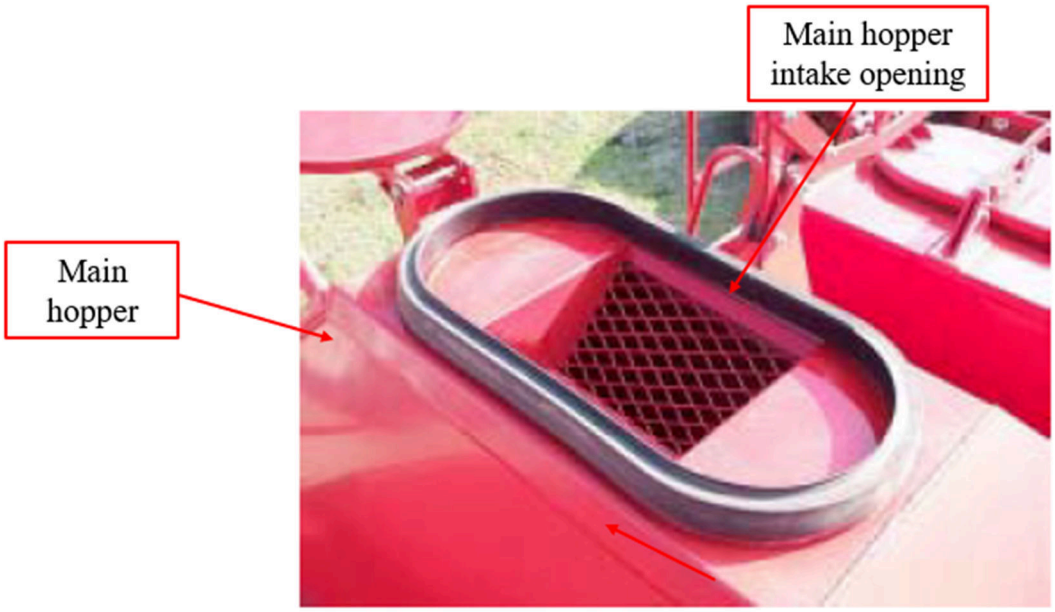
The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 49–50. Morris's seed tender has a "tank" (main hopper) into and from which "product" (e.g., "seed") is discharged. Ex. PK-1004 at 5-4, 5-25, 5-27. Morris's main hopper has an upper portion with a lid that opens for loading seed (main hopper intake opening) and a lower portion with a "clean out door" (main hopper discharge):



Id. at 5-27 (red annotations added).



Id. (red annotations added).

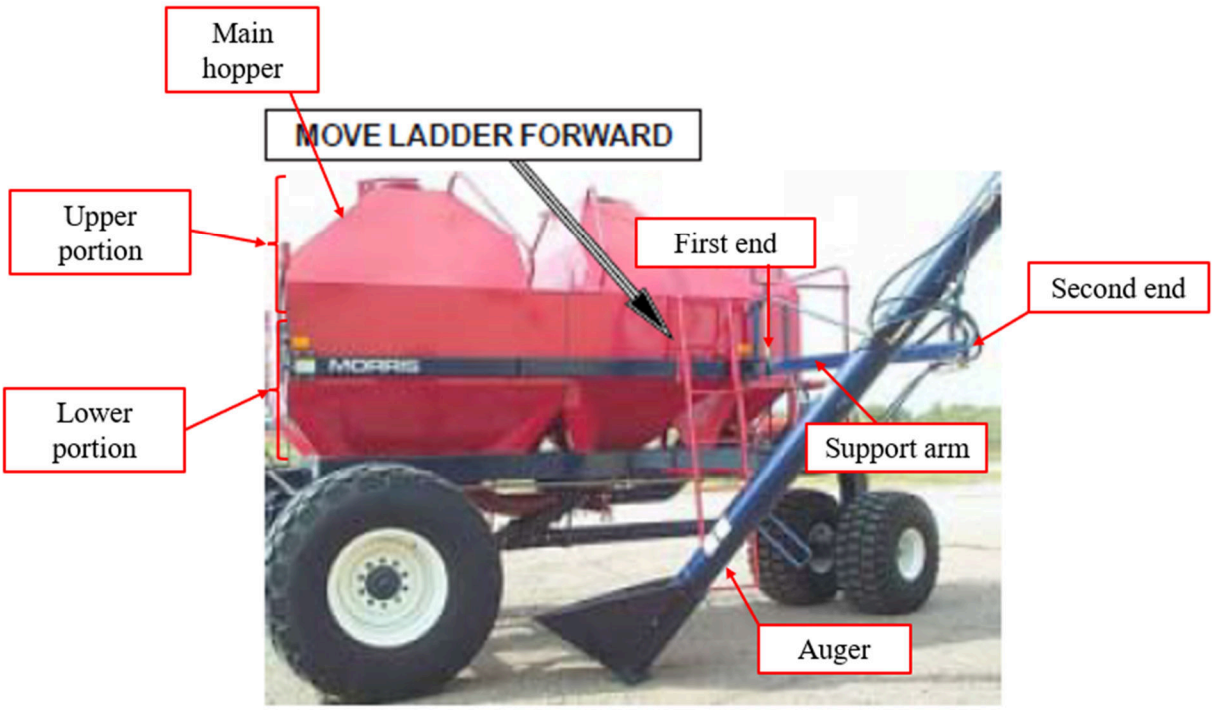


Id. at 5-23 (annotated); *see also id.* at 5-25 (instructing operator to "[o]pen lids on tank and insert spout" and "[a]uger product into tank").

(c) [10.2] a support arm having a first end proximate[3] said lower portion of said main hopper and a second end;

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 51–52. Morris discloses a support arm that mounts the auger to the seed tender and has first and second ends (tender-side and auger-side):

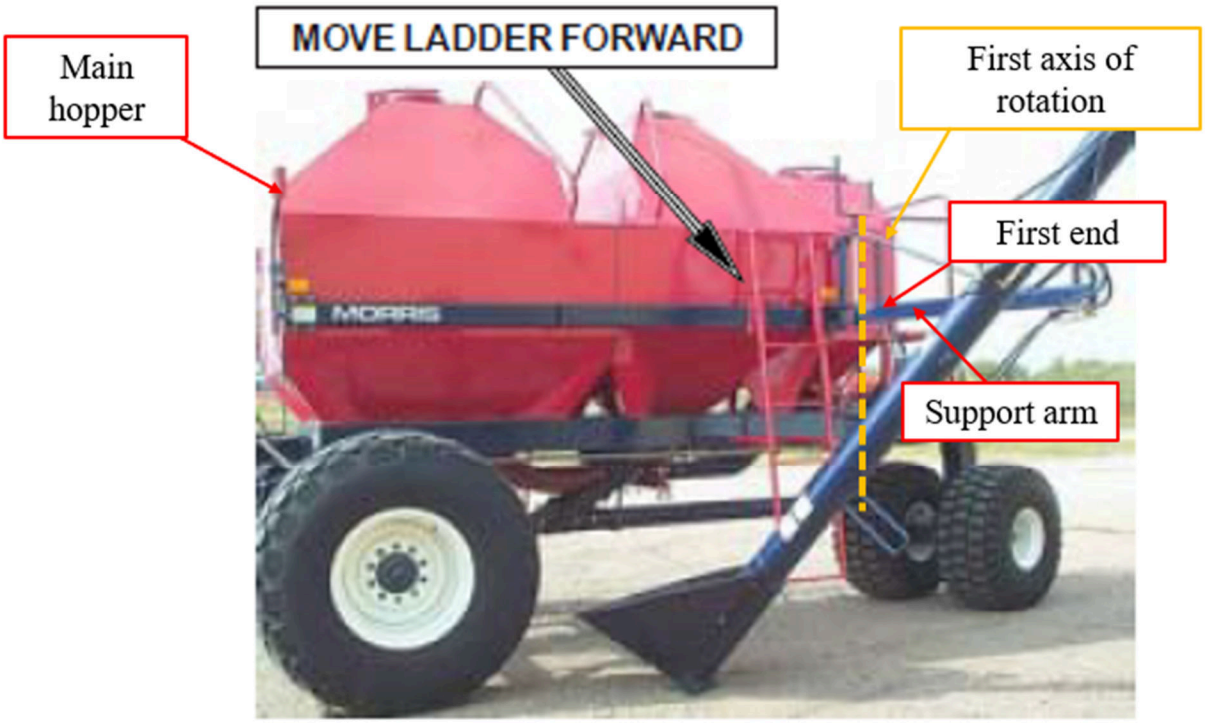
[3] Petitioner may argue indefiniteness of this and any other term elsewhere, which would not impact this IPR. *See Samsung Elecs. Co. v. SEVEN Networks, LLC*, IPR2018-01124, Paper 29 at 17 (PTAB Jan. 18, 2019) (citing 35 U.S.C. § 311(b)).



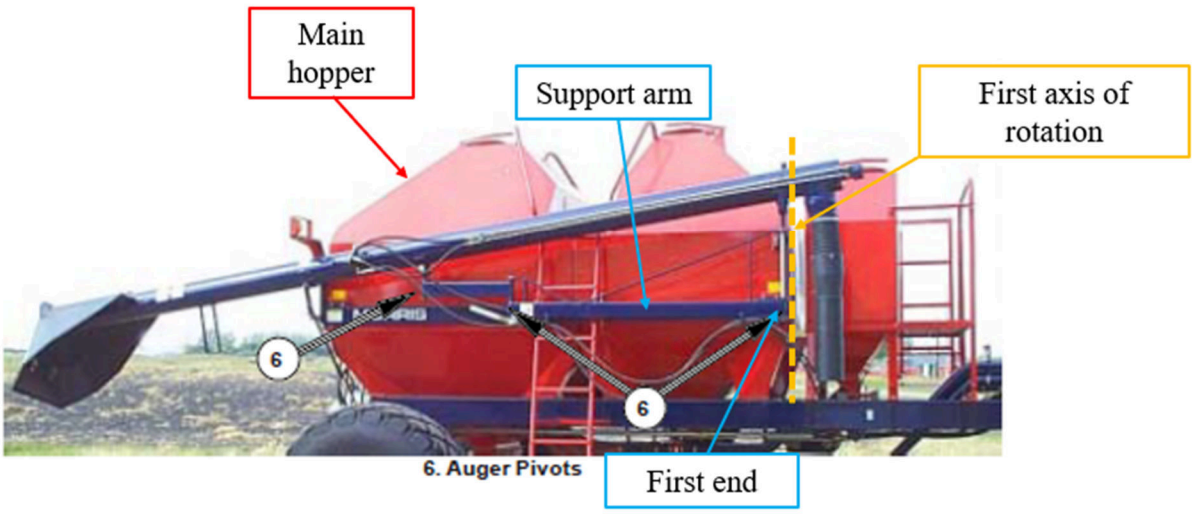
Ex. PK-1004 at 5-27 (red annotations added). As shown above, the first end of the support arm is proximate the lower portion of the main hopper.

(d) [10.3] wherein said support arm is pivotable about a first axis of rotation proximate said first end of said support arm to cause said support arm to be movable between an operating position wherein said support arm extends outwardly relative to said main hopper and a storage position wherein said support arm is folded inwardly towards said main hopper in relation to said operating position,

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 53. Morris discloses its support arm is pivotable about a first (vertical) axis of rotation at the first end of the support arm. As shown below, Morris's support arm is movable between an operating position, wherein the support arm extends outwardly relative to the main hopper, and a storage position, wherein the support arm is folded inwardly towards the main hopper in relation to the operating position:



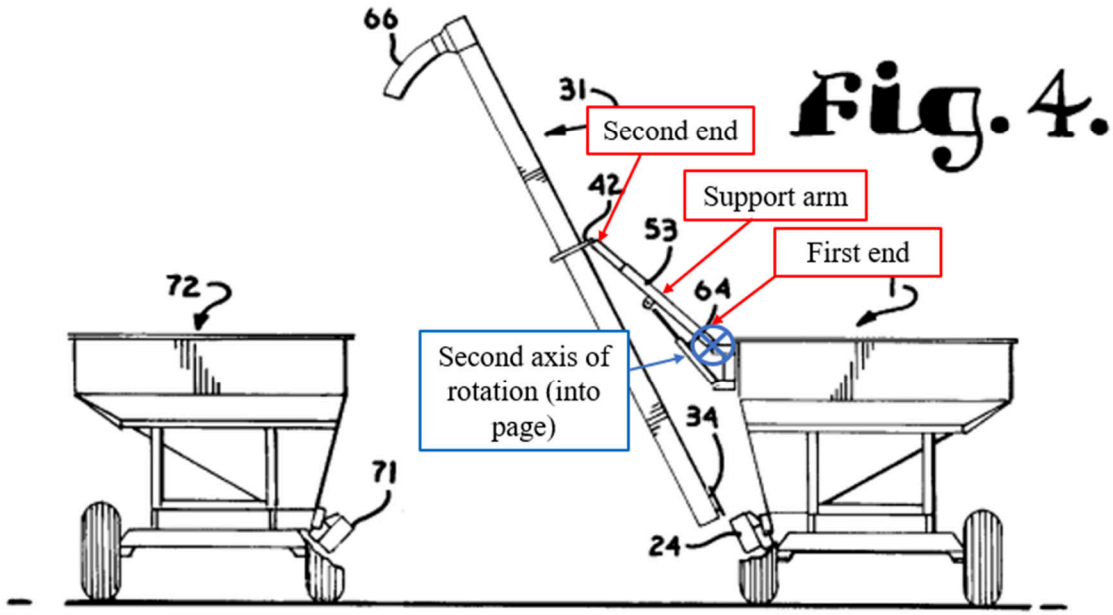
Ex. PK-1004 at 5-27 (colored annotations added) (depicting operating position).



Id. at 7-7 (colored annotations added) (depicting storage position).

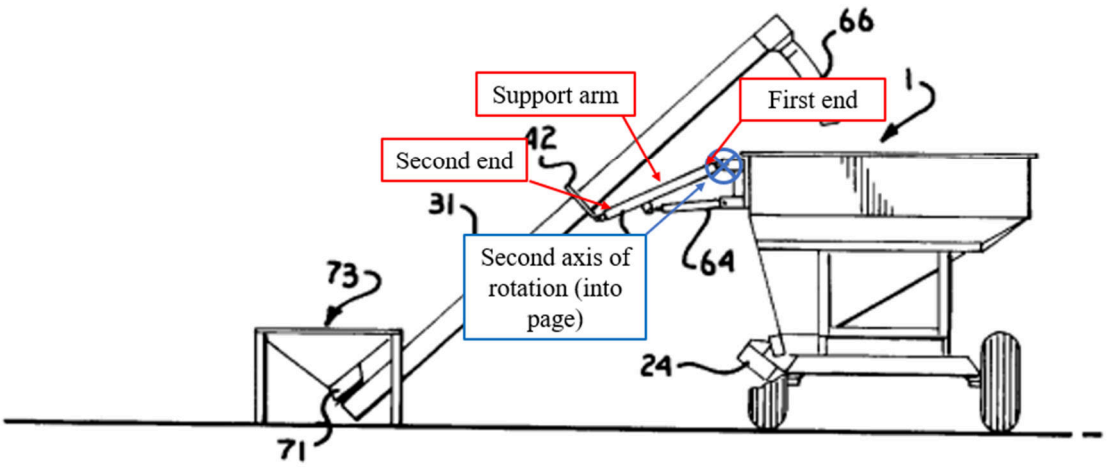
(e) [10.4] said support arm further being pivotable about a second axis of rotation proximate said first end of said support arm to cause an elevation of said second end of said support arm to be adjustable;

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 54. As discussed above (§ V.A.3), a skilled artisan would have been motivated to modify Morris so its support arm can pivot about a second (horizontal) axis of rotation proximate its first end to cause an elevation of its second end to be adjustable, as in Baskerville. *Compare* Ex. PK-1005 at Fig. 4 (showing support arm in raised position), *with id.* at Fig. 5 (showing support arm in lowered position):



Id. at Fig. 4 (annotated).

Fig. 5.



Id. at Fig. 5 (annotated); *see also id.* at 1:14–15 ("The conveyor can thus be . . . ***lifted or lowered*** via the boom assembly.").

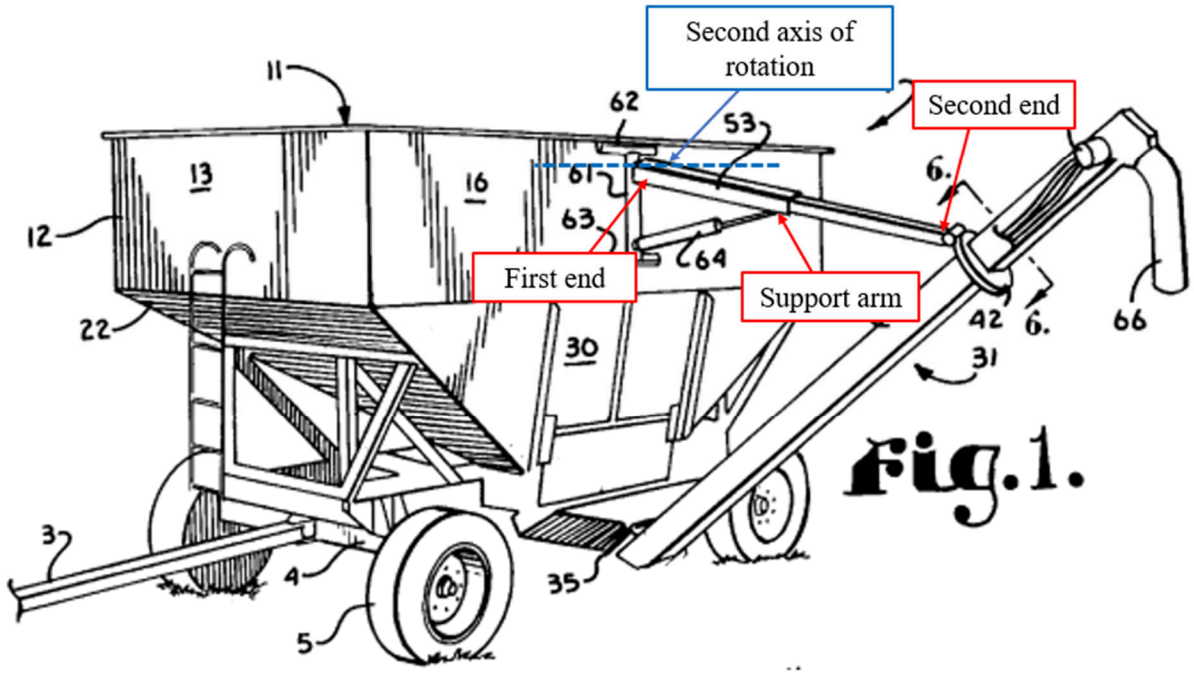
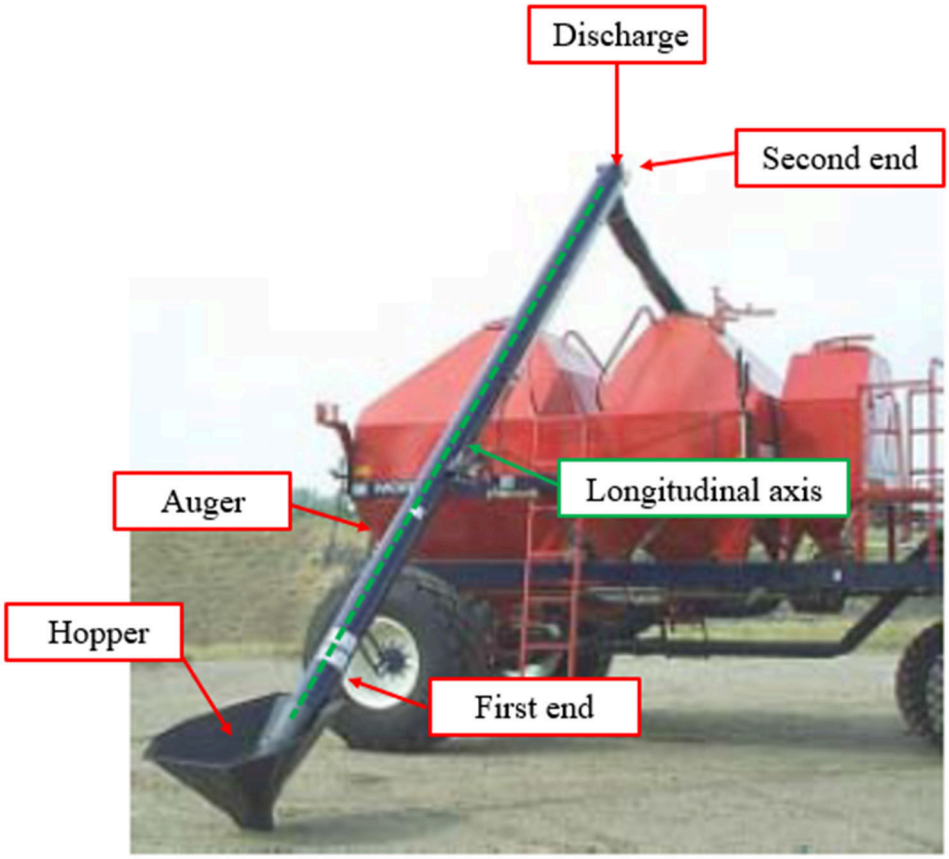


Fig.1.

Id. at Fig. 1 (annotated).

(f) [10.5] a conveyor having a longitudinal axis and first and second ends, a conveyor hopper at said first end, a conveyor discharge at said second end, and an internal elevator for moving seed or grain from said conveyor hopper to said conveyor discharge; and

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 55–61. Morris discloses an auger having a longitudinal axis, first and second ends, a "hopper" at the first end and a "spout" (discharge) at the second end:

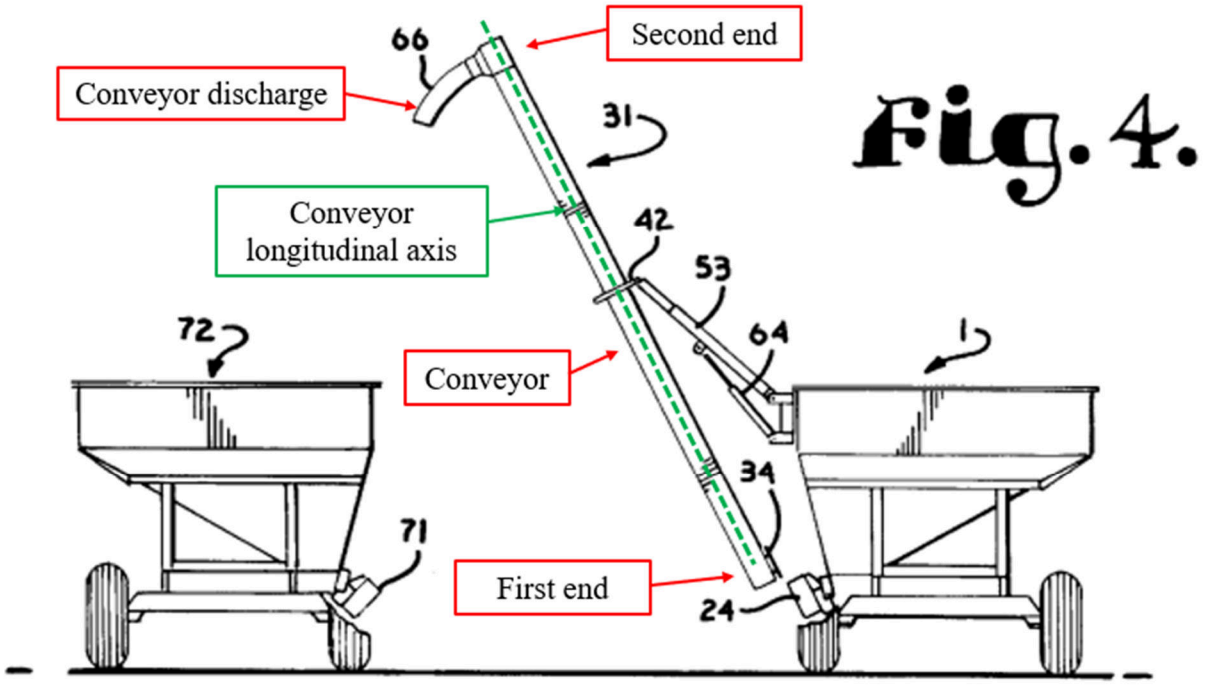


Ex. PK-1004 at 5-25 (annotated) (instructing operator to "[o]pen lids on tank and insert spout" and "[b]ack truck to the hopper" to load the seed).

Per Mr. Prairie, an auger is a type of conveyor (a screw-type conveyor). Ex. PK-1003 ¶ 56. Indeed, the '123 patent identifies "[a]uger systems" as an example of "***[c]onveyor*** systems for moving grain, seed, etc." that were "well known." Ex. PK-1001 at 1:24–27. It also acknowledges augers "are used to rapidly ***move [i.e., convey]*** grain such as feed or the like." *Id.* Moreover, other prior art confirms an auger is a type of conveyor. *See* Ex. PK-1021 at 2:37–40 ("An ***auger conveyor*** is rotatably mounted within the auger housing and is adapted to ***convey*** the seed.");

Ex. PK-1022 at 1:33–36 ("An air cart as described above typically includes a ***conveyor in the form of an auger***."); *id.* at 2:43–45 ("***conveyor 32 is in the form of an auger***"). Thus, Morris's auger is a conveyor.

Even if the Board finds otherwise, it would have been obvious to replace Morris's auger with Baskerville's conveyor. Ex. PK-1003 ¶ 57. Baskerville discloses a "conveyor 31" having a longitudinal axis, first and second ends, and a "discharge tube 66" (conveyor discharge) at the second end:



Ex. PK-1005 at Fig. 4 (annotated), 4:64–5:1 ("The conveyor 31 can thus be used to unload seed from the cart 1 via the discharge hopper 24, which seed is carried up the conveyor housing 32 via the belt 55 and paddles 56 to the top thereof where the seed enters a flexible discharge tube 66."). Baskerville discloses the interior of its

conveyor "encloses an endless conveyor belt 55 which carries a plurality of spaced paddles 56" (internal elevator) "for carrying seed upward through the conveyor 31." *Id.* at 4:44–52; Ex. PK-1003 ¶ 58.

A skilled artisan would have been motivated to replace Morris's auger with Baskerville's conveyor because conveyors were known to provide several benefits over augers. Ex. PK-1003 ¶ 59. For example, Baskerville says "some seed carts" "have incorporated belt-type conveyors instead" of "auger-type conveyors" "due to the rather fragile nature of seed." Ex. PK-1005 at 1:26–31. Similarly, Hitch says "conveyors are ideal appliances in that they can run at relatively high speeds with a moderate expenditure of power." Ex. PK-1011 ¶ 1. Hitch further says conveyors "are ideal for use with grain" and "are also capable of rendering good service in handling other materials such as seeds and fertilizer." *Id.* ¶ 2. Indeed, the '123 patent acknowledges conveyors were "well known" and "often used for moving more expensive payload, such as seed." Ex. PK-1001 at 1:24–27. These known benefits would have motivated a skilled artisan to use a conveyor, rather than an auger, in the Morris-Baskerville combination. Ex. PK-1003 ¶ 59.

A skilled artisan also would have reasonably expected success in modifying Morris to use a conveyor. *Id.* ¶ 60. As the '123 patent admits, conveyors were "well known" and commonly used at the time. Ex. PK-1001 at 1:24–27. Indeed, "[c]onveyors have been used in the transportation of grain since the 1800's." Ex.

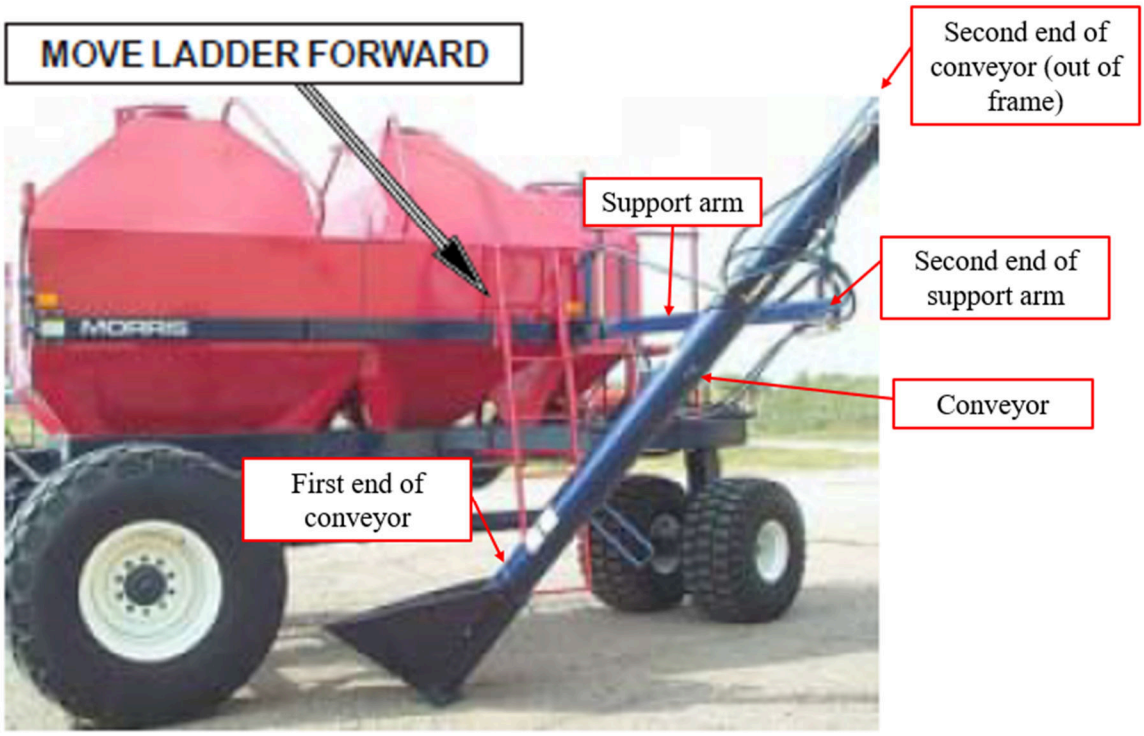
PK-1011 ¶ 1. And the Morris-Baskerville combination would use a conveyor according to its known function (conveying seed or grain) to achieve predictable results (e.g., efficient transport of seed or grain). Ex. PK-1003 ¶ 60. Therefore, a skilled artisan would have reasonably expected success with this modification.

Regardless, the Board need not address whether it would have been obvious to replace Morris's auger with Baskerville's conveyor because, as explained, Morris's auger is a conveyor. *Id.* ¶ 56.

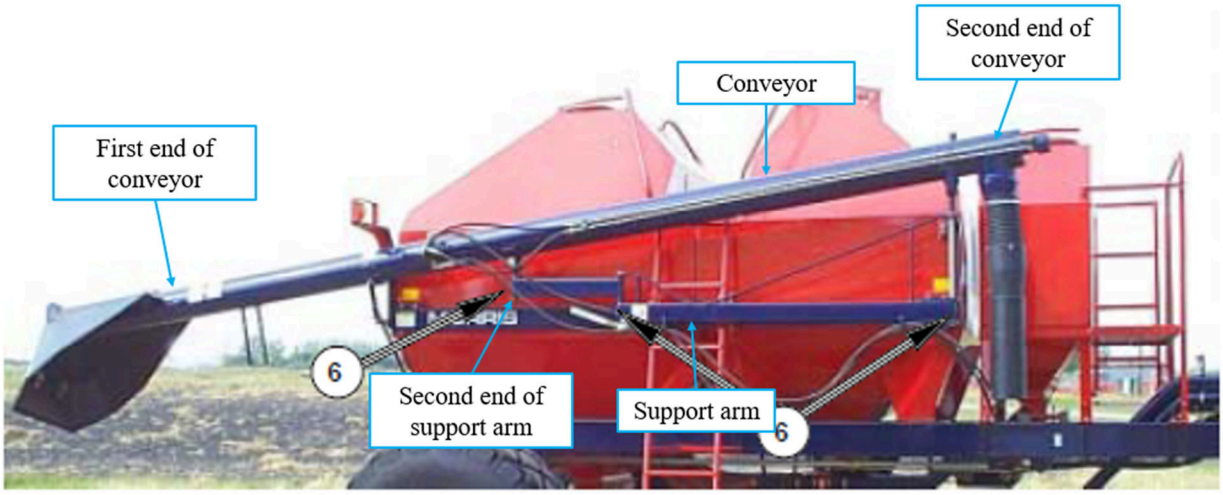
Whether the Morris-Baskerville combination uses an auger-type or belt-type conveyor, the combination comprises an internal elevator (either a screw or belt) that moves seed or grain from the conveyor hopper to the conveyor discharge. *Id.* ¶ 61; Ex. PK-1004 at 4-4, 5-25, 5-27; Ex. PK-1005 at 4:44–52.

(g) [10.6] said second end of said support arm being coupled with said conveyor between said first and second conveyor ends,

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 62. As shown below, Morris discloses the second end of the support arm is coupled to the conveyor between the conveyor's first and second ends:



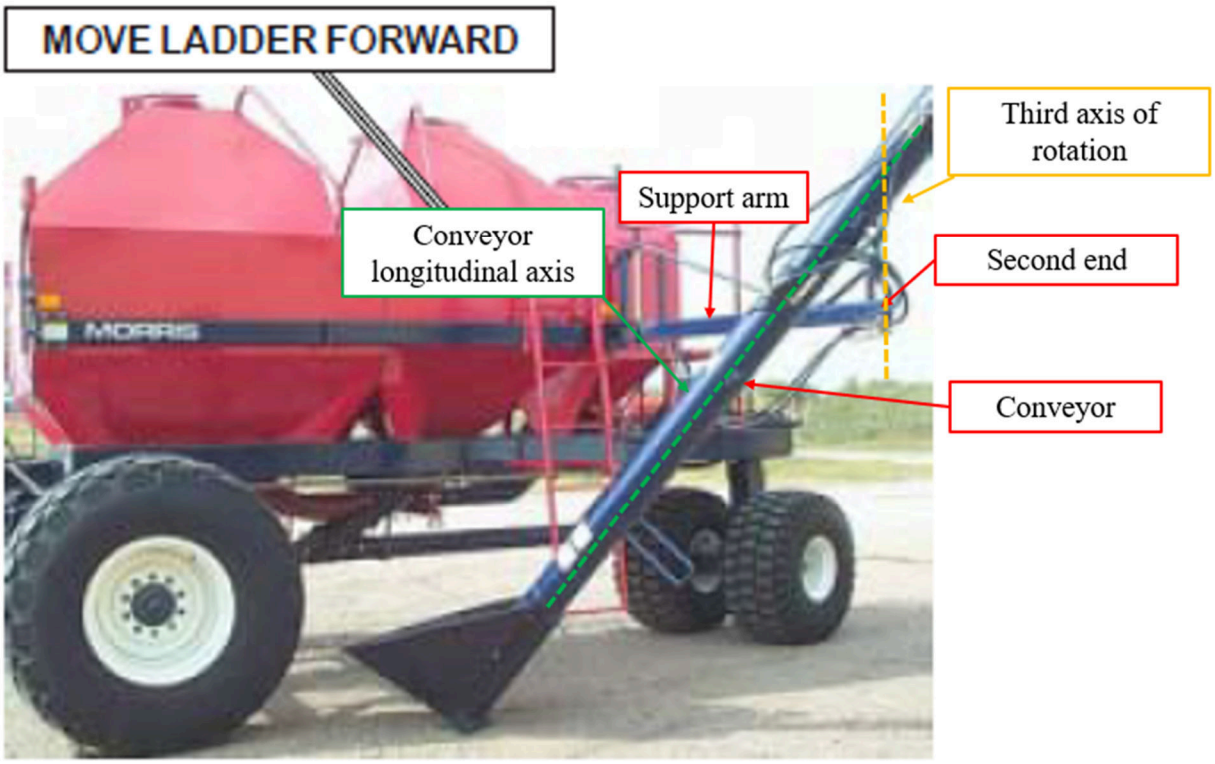
Ex. PK-1004 at 5-27 (red annotations added).



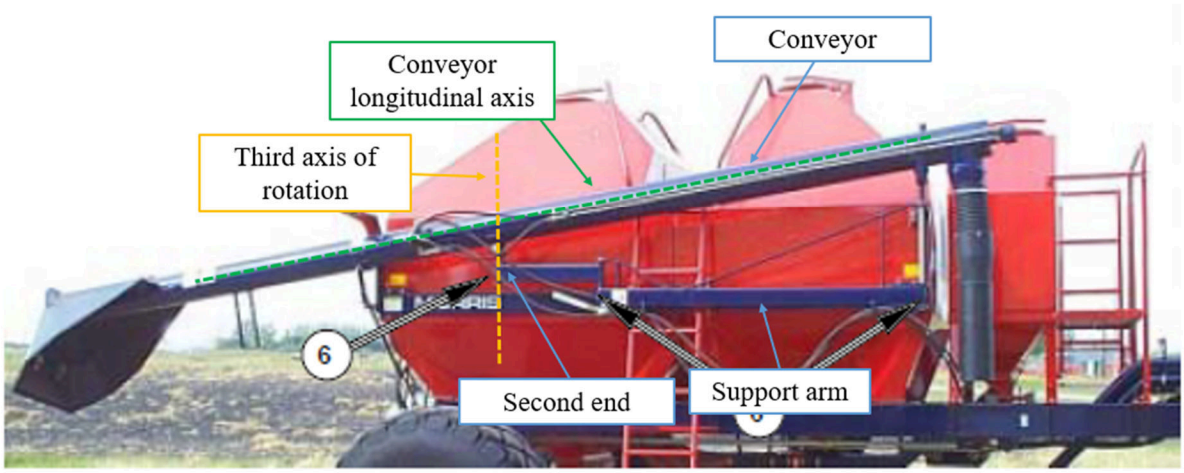
Id. at 7-7 (blue annotations added).

(h) [10.7] said conveyor being rotatable about a third axis of rotation proximate said second end of said support arm that is not parallel to said conveyor longitudinal axis, and

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 63–64. As shown below, Morris discloses the conveyor can rotate about a third axis of rotation at the second end of the support arm:



Ex. PK-1004 at 5-27 (colored annotations added).

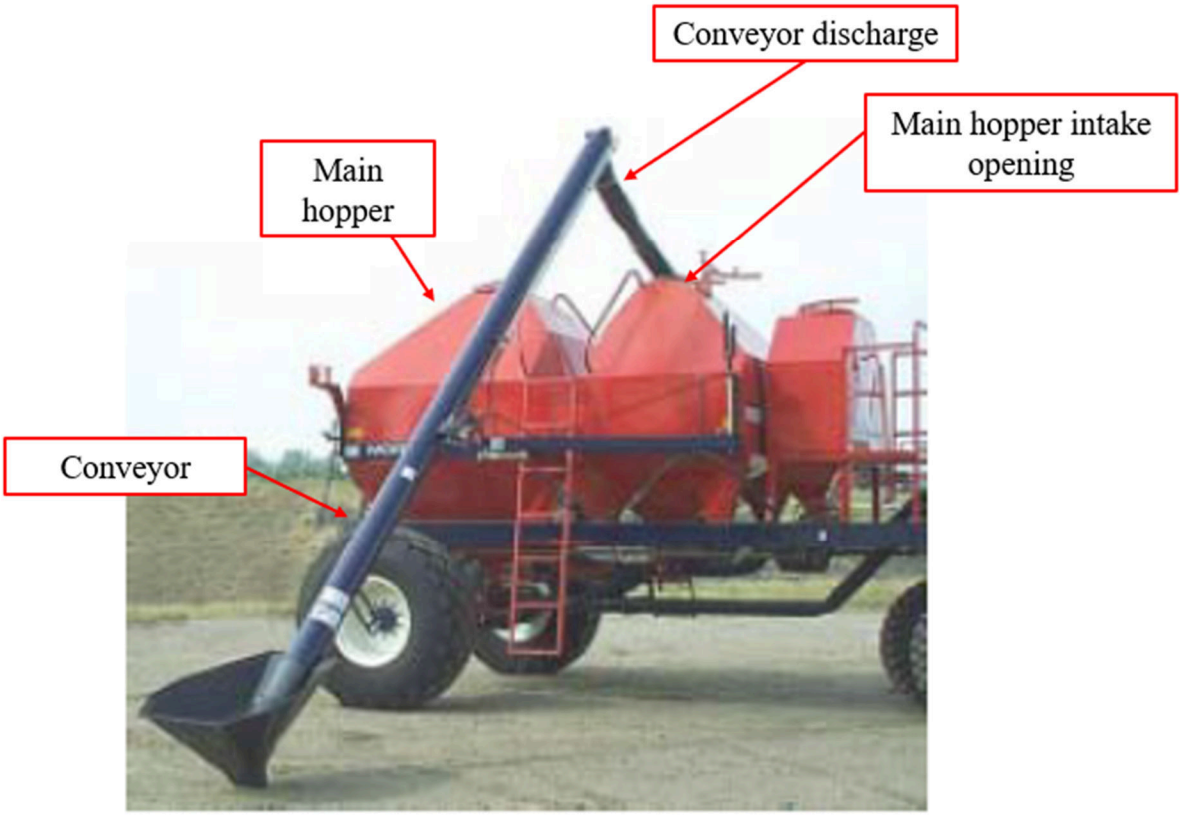


Id. at 7-7 (colored annotations added). As shown above, the third axis of rotation is not parallel to the conveyor longitudinal axis.

(i) [10.8] said conveyor being rotatable in relation to said second end of said support arm about said third axis of rotation between an unloading position wherein said conveyor hopper is disposed below said main hopper discharge to receive agricultural product from said main hopper and a loading position wherein said conveyor discharge is disposed above said intake opening of said main hopper to dispense agricultural product into said main hopper.

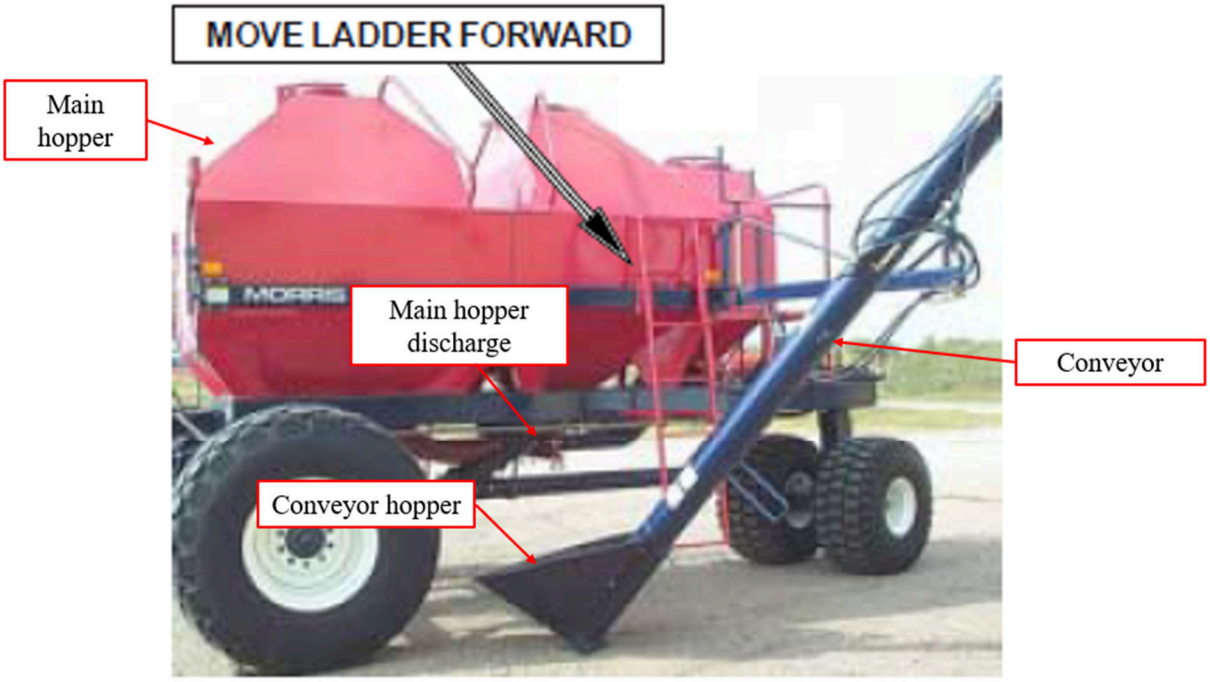
The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 65–68.

Loading Position: Morris discloses a loading position wherein the conveyor discharge is disposed above the main hopper intake opening to dispense agricultural product (seed or grain) into the main hopper:

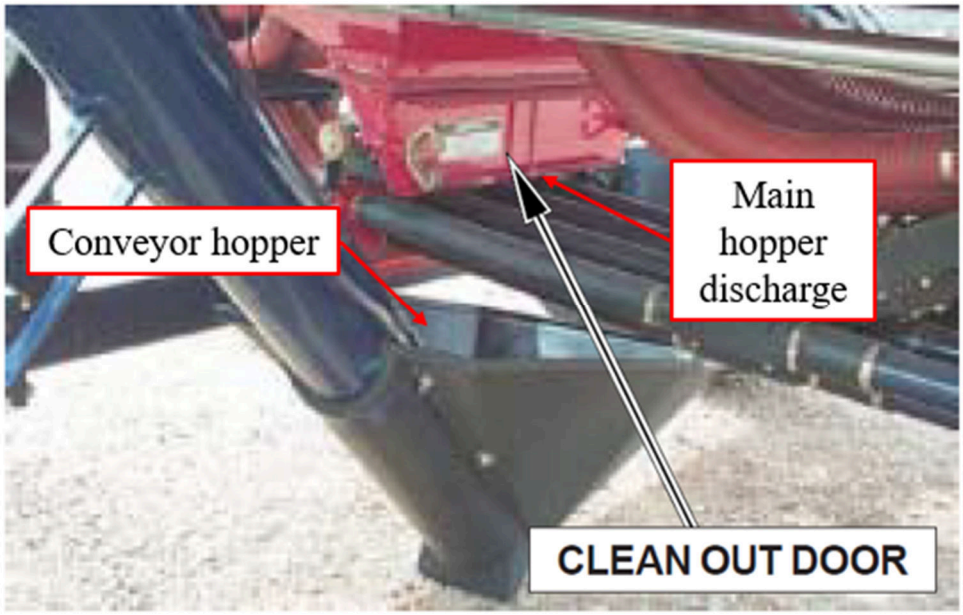


Ex. PK-1004 at 5-25 (annotated); *see also id.* (instructing operator to "[o]pen lids on tank and insert spout" and "[a]uger product into tank until product is visible").

Unloading Position: Morris discloses an unloading position wherein the conveyor hopper is disposed below the main hopper discharge to receive agricultural product (seed or grain) from the main hopper:



Id. at 5-27 (red annotations added); *see also id.* (instructing operator to "[p]osition auger under the tank to be emptied").



Id. (red annotations added).

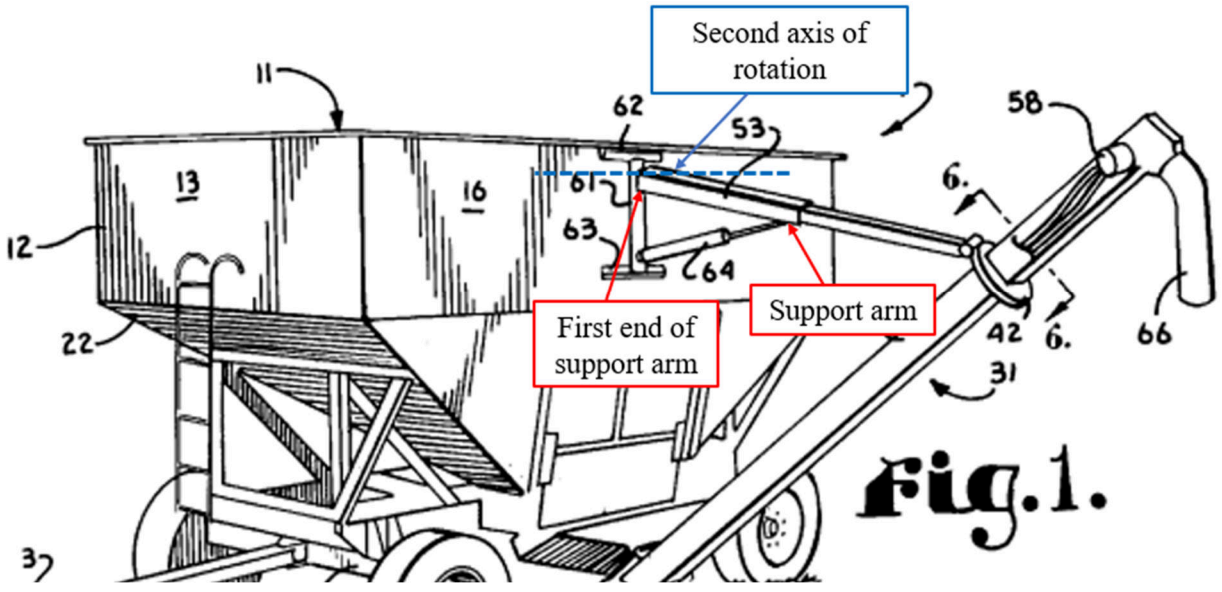
To switch between these positions, the conveyor is rotatable about the third axis of rotation in relation to the second end of the support arm, as shown above. Ex. PK-1003 ¶ 68; *see also* Ex. PK-1004 at 7-7 (showing "auger pivots").

For the above reasons, the Board should hold that claim 10 would have been obvious over the combination of Morris and Baskerville.

5. Dependent Claim 12

The seed or grain tender of claim 10, wherein said second axis of rotation extends through said first end of said support arm.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 70–71. As discussed (§ V.A.3), a skilled artisan would have been motivated to modify Morris so its support arm can pivot about a second (horizontal) axis of rotation, as in Baskerville. Moreover, Figure 1 of Baskerville shows that the second (horizontal) axis of rotation extends through the first end of the support arm:



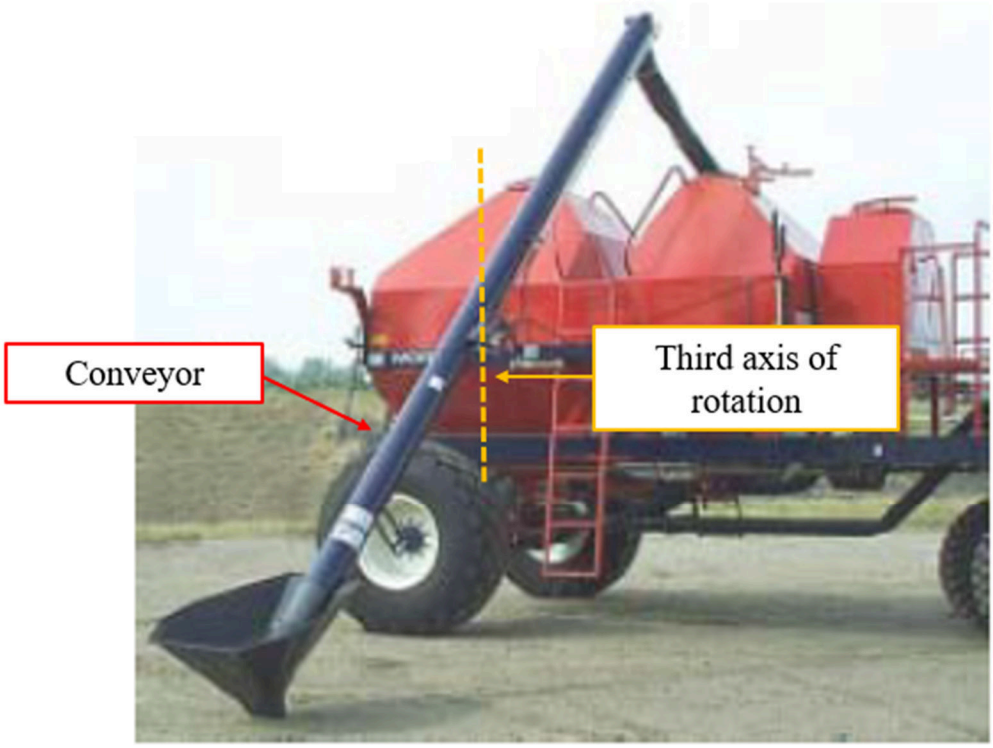
Ex. PK-1005 at Fig. 1 (excerpted, annotated).

Thus, in the Morris-Baskerville combination, the second axis of rotation extends through the first end of the support arm.

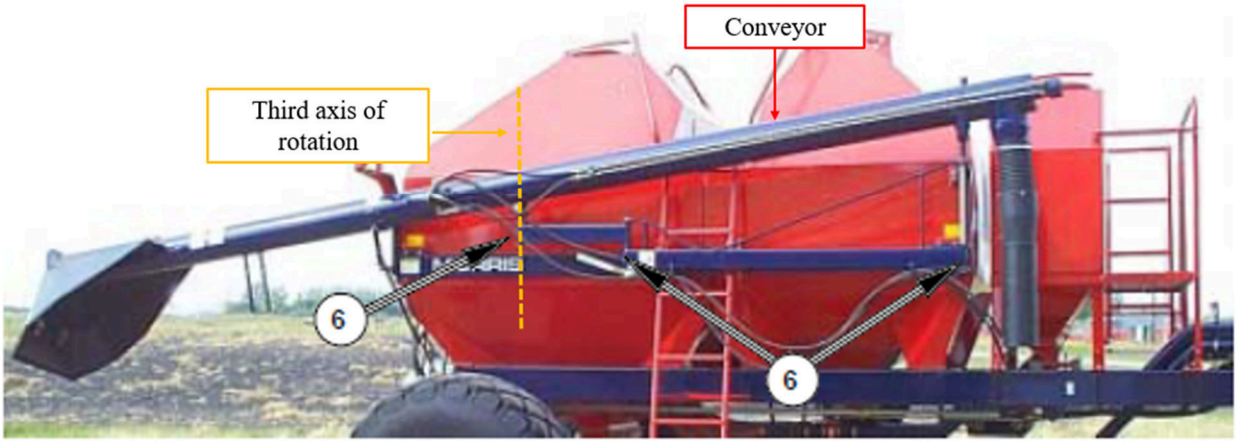
6. Dependent Claim 13

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 72. For example, the below images of Morris show the third axis of rotation extends through the conveyor:



Ex. PK-1004 at 5-25 (annotated).

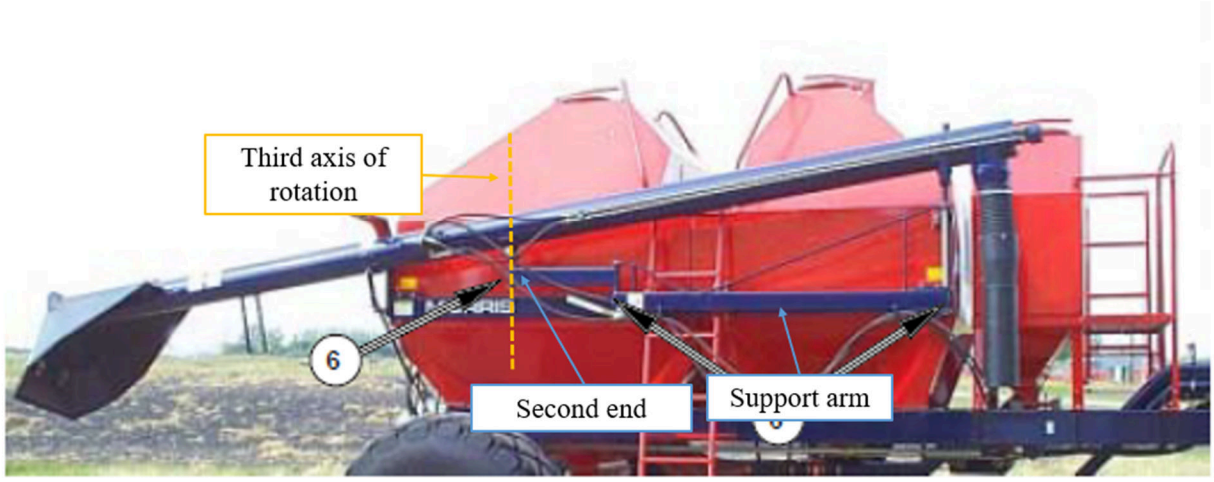


Id. at 7-7 (colored annotations added).

7. Dependent Claim 14

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said second end of said support arm.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 73. For example, the below image of Morris shows the third axis of rotation extends through the second end of the support arm:



Ex. PK-1004 at 7-7 (colored annotations added).

8. Dependent Claim 15

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor and said second end of said support arm.

The Morris-Baskerville combination discloses this limitation. *See* Ex. PK-1003 ¶ 74; §§ V.A.6–7, *supra*.

9. Dependent Claim 16

The seed or grain tender of claim 10, wherein said third axis of rotation is oriented at an angle having a vertical component.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 75. For example, the below images of Morris show the third axis of rotation is vertical (oriented at an angle having a vertical component):



Ex. PK-1004 at 5-25 (annotated).

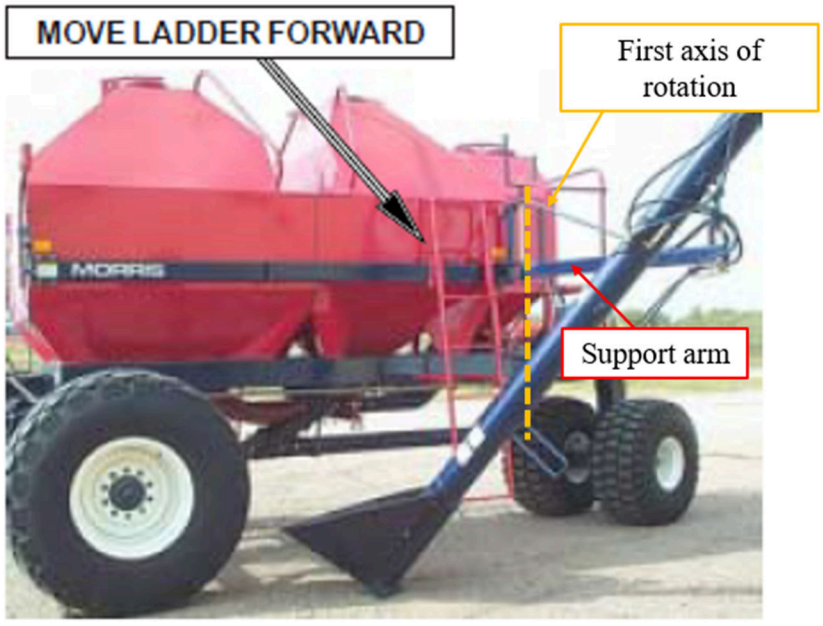


Id. at 7-7 (orange annotations added).

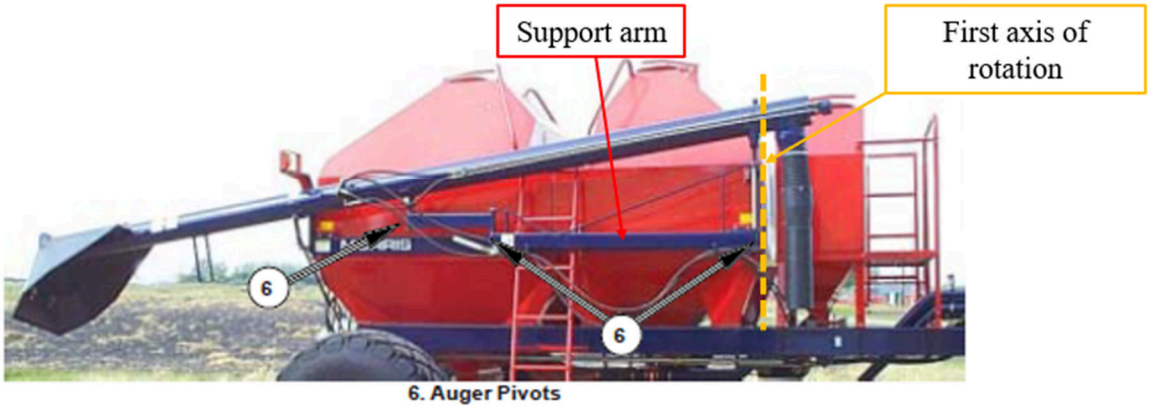
10. Dependent Claim 17

The seed or grain tender of claim 16, wherein said first axis of rotation is vertical.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 76. As shown below, Morris's first axis of rotation is vertical:



Ex. PK-1004 at 5-27 (colored annotations added).



Id. at 7-7 (colored annotations added).

11. Dependent Claim 18

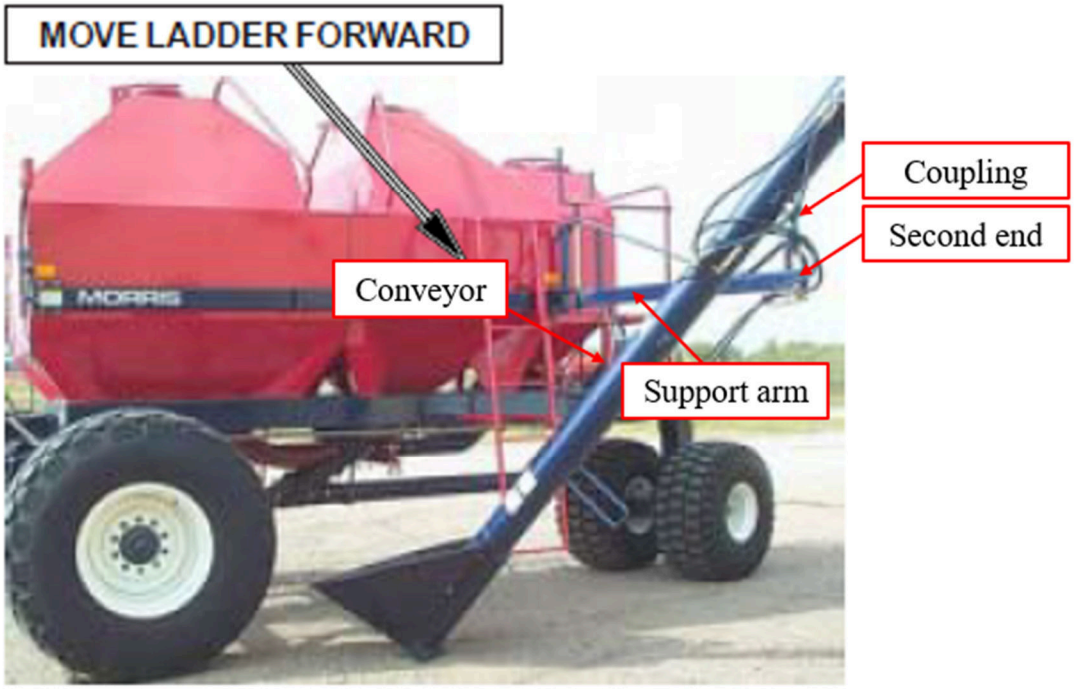
The seed or grain tender of claim 17, wherein said second axis of rotation is horizontal.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶ 77. As discussed in § V.A.3, *supra*, a skilled artisan would have been motivated to modify Morris so its support arm can pivot about a second (horizontal) axis of rotation, as in Baskerville.

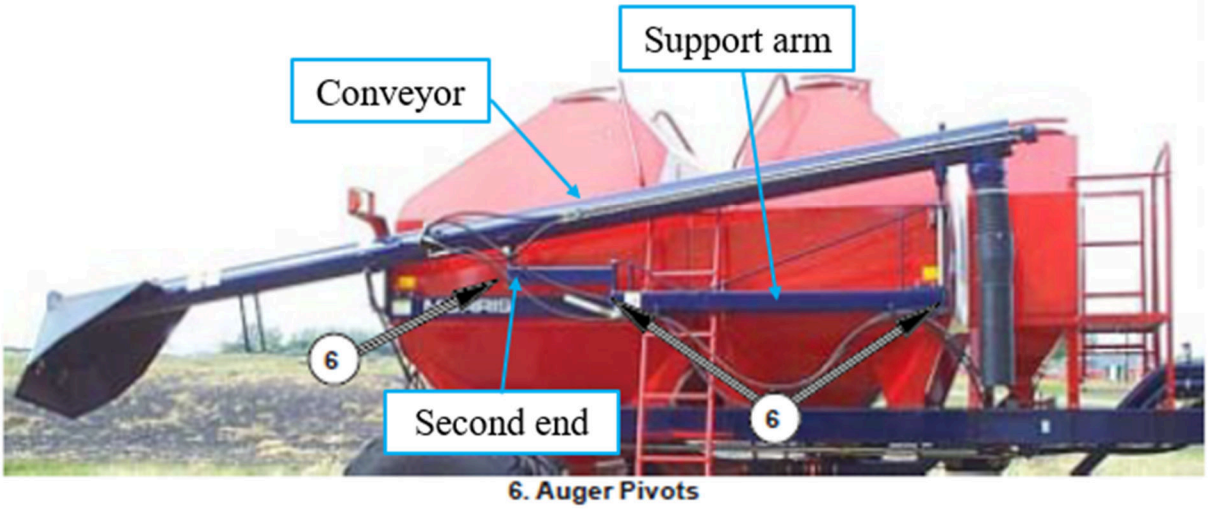
12. Dependent Claim 19

The seed or grain tender of claim 10, wherein said second end of said support arm is coupled with said conveyor at an approximate center of gravity of said conveyor.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003 ¶¶ 78–80. For example, the below images of Morris show the second end of the support arm is coupled with the conveyor at its approximate geometric center:



Ex. PK-1004 at 5-27 (red annotations added).



Id. at 7-7 (blue annotations added).

As Mr. Prairie explains, the conveyor's approximate geometric center corresponds to its approximate center of gravity because the conveyor has an approximately uniform cross-section from end to end. Ex. PK-1003 ¶ 79. Granted, the exact center of gravity is offset from the exact geometric center because the conveyor hopper adds weight to the conveyor's first end. *Id.* The claim, however, uses the term "approximate," and as shown above the second end of the support arm is coupled with the conveyor slightly toward its first end. *Id.* Thus, Morris discloses that the second end of the support arm is coupled with the conveyor at an approximate center of gravity of the conveyor. *Id.*

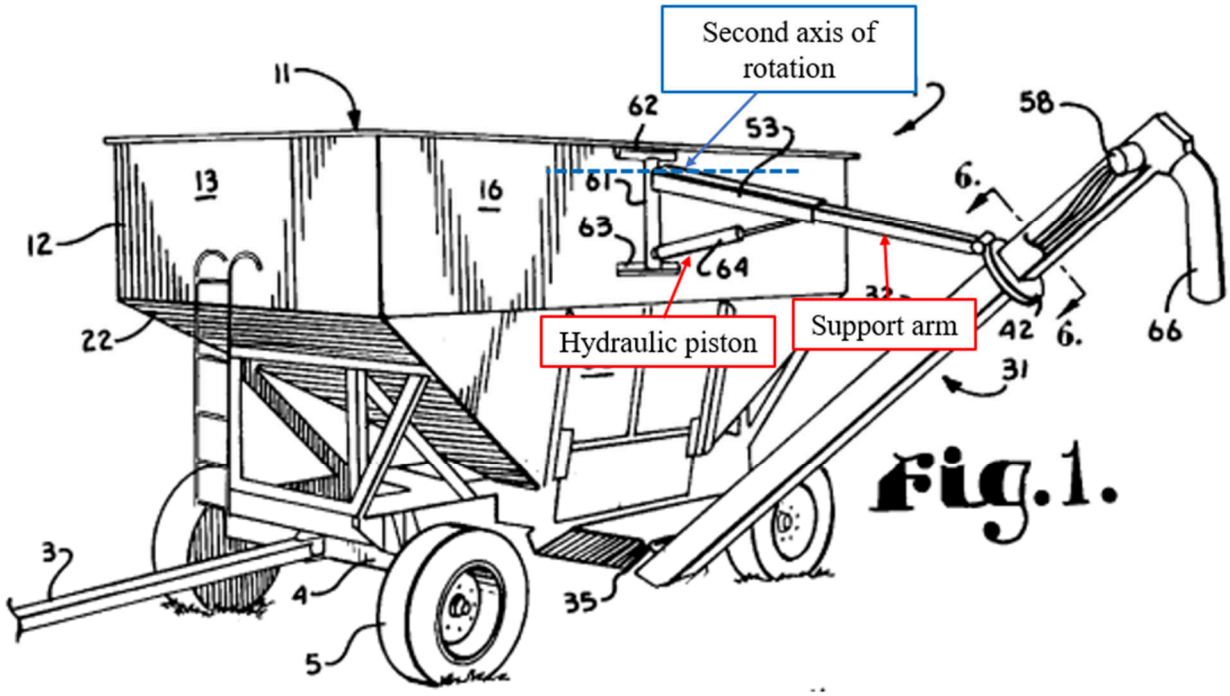
If Patent Owner disputes this point, it would have been obvious to modify the Morris-Baskerville combination to couple the second end of the support arm with the conveyor at its approximate center of gravity. *Id.* ¶ 80. A skilled artisan would have been motivated to do so to balance the conveyor, making it easier to manipulate. *Id.* A skilled artisan also would have reasonably expected success because, as explained in § V.C.15, others had already accomplished balancing a conveyor on a support arm. *Id.*

13. Dependent Claim 20

The seed or grain tender of claim 10, further comprising a hydraulic piston extending at an acute angle relative to a horizontal plane to connect with a portion of said support arm spaced from said second axis of rotation.

The Morris-Baskerville combination discloses this limitation. Ex. PK-1003

¶ 81. As discussed in § V.A.3, *supra*, a skilled artisan would have been motivated to modify Morris to include a horizontal hinge and hydraulic piston so the support arm can pivot about a second (horizontal) axis of rotation, like in Baskerville. Moreover, as shown below, Baskerville discloses that its hydraulic piston extends at an acute angle (< 90°) relative to a horizontal plane and connects to a portion of the support arm spaced from the second axis of rotation:

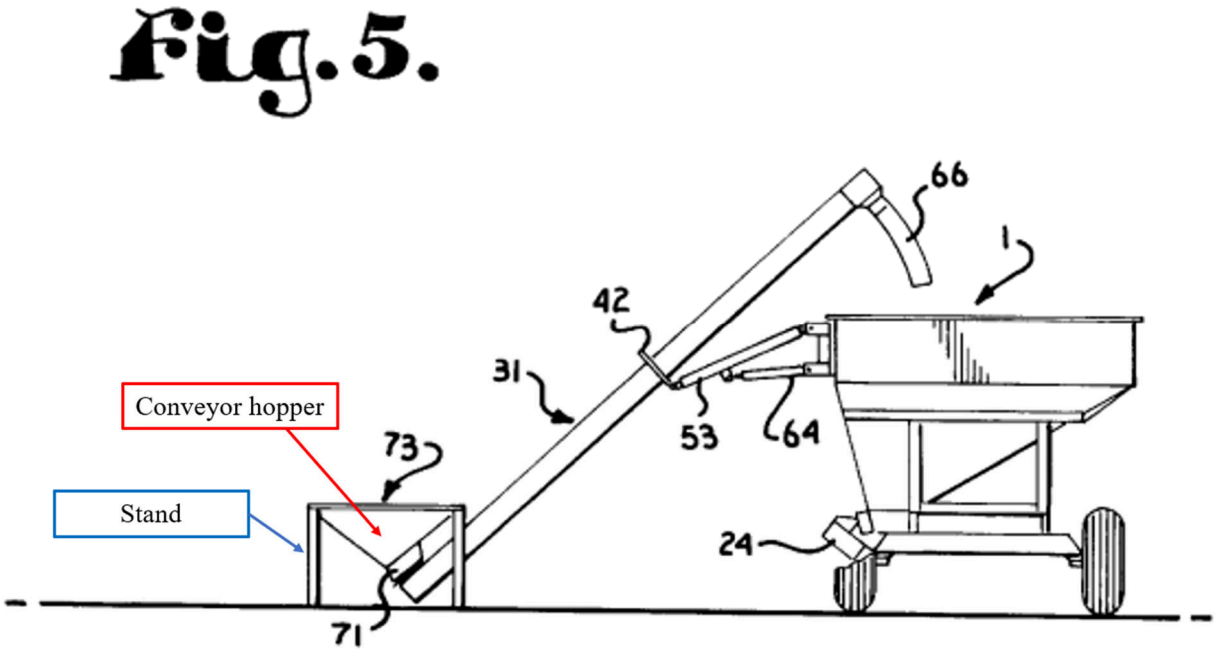


Ex. PK-1005 at Fig. 1 (annotated).

14. Dependent Claim 21

The seed or grain tender of claim 10, further comprising a stand coupled with said first end of said conveyor and movable between a stowed position allowing said conveyor hopper to be positioned below said main hopper discharge when said conveyor is in said unloading position and an extended position supporting said conveyor hopper above the ground when said conveyor is in said loading position.

Baskerville discloses a "companion seed bin 73" with a stand that can be "engaged with" (coupled with) the conveyor to support the conveyor hopper above the ground when the conveyor is in the loading position:



Ex. PK-1005 at Fig. 5 (annotated), 5:12–16; Ex. PK-1003 ¶ 82.

A skilled artisan would have been motivated to include a stand like Baskerville's in the Morris-Baskerville combination for at least two reasons. Ex. PK-1003 ¶ 83. First, providing a stand reduces the vertical distance between the conveyor hopper and the outlet of the seed or grain source (e.g., another seed or grain tender, a semi-trailer, or a railroad car), thus reducing spillage. *Id.* Second, a stand provides stability and lifts the conveyor off the ground, which helps keep it clean from dirt, mud, manure, and other contaminants that could interfere with and degrade the exposed moving parts of Morris's conveyor. *Id.* (citing Ex. PK-1004 at 5-25).

A skilled artisan would have readily recognized these benefits and thus been motivated to include a stand like Baskerville's in the Morris-Baskerville combination. *Id.*

Baskerville also teaches that its stand is movable between the "engaged" (extended) position shown above and a disengaged (stowed) position. *See* Ex. PK-1005 at 5:12–16 (noting the stand can be "engaged with" the conveyor), Figs. 1–4, 9 (depicting the conveyor without the stand). The disengaged position corresponds to the claimed "stowed position" because it necessarily involves detaching the stand and putting it somewhere (i.e., stowing it). Ex. PK-1003 ¶ 84. Alternatively, it would have been obvious to convert the disengaged position to a stowed position by stowing the stand somewhere (e.g., in a dedicated stowage compartment on the tender). *Id.* A skilled artisan would have been motivated to stow the stand somewhere to, for example, avoid losing or running over it. *Id.*

If Patent Owner contends that the stand must remain coupled with the first end of the conveyor when in the stowed position, it would have been obvious to modify the stand in this manner. *Id.* ¶ 85. For example, it would have been obvious to modify the stand's legs to fold up *in situ* for storage, like the well-known kickstand of a bicycle. *Id.* A skilled artisan would have been motivated to make this modification because it would be more convenient than removing the stand and storing it somewhere else, and it would eliminate the risk of losing or running over

the stand. *Id.* And this modification would have been routine, requiring merely the addition of, for example, a hinge and spring for each leg, like a bicycle kickstand, according to their known functions (allowing the leg to fold up and down) to achieve predictable results (extended and stowed positions). *Id.*

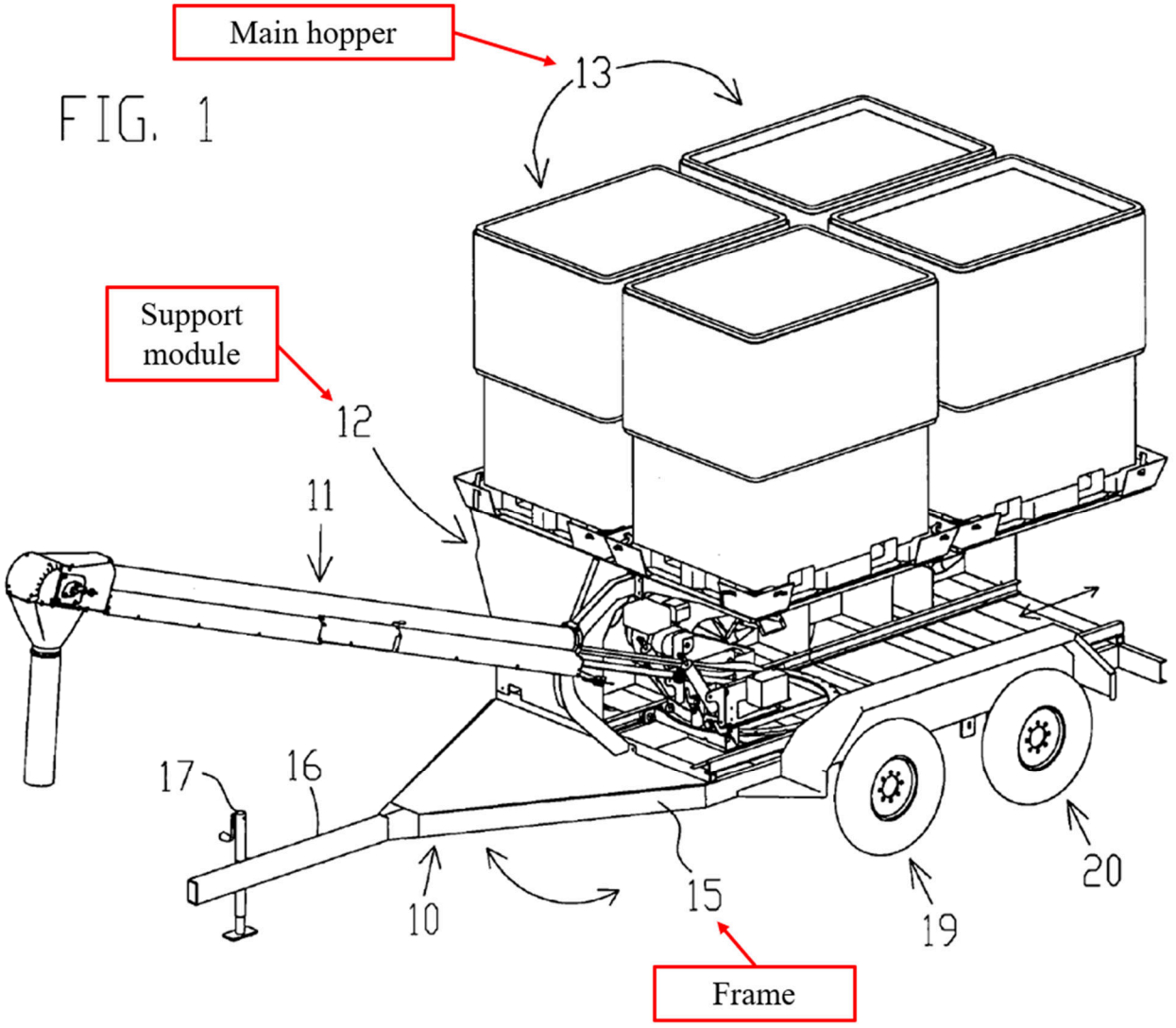
Accordingly, claim 21 would have been obvious over the Morris-Baskerville combination.

B. Ground 2: Morris in View of Baskerville and Furrer

Claim 11 would have been obvious over the Morris-Baskerville combination of Ground 1 in view of Furrer. Claim 11 recites: "The seed or grain tender of claim 10, wherein said first axis of rotation extends through said main hopper discharge." As explained below, Furrer discloses this limitation, and it would have been obvious to modify the Morris-Baskerville combination to incorporate Furrer's teachings. The Board should therefore cancel claim 11.

1. Furrer Discloses a Support Arm Pivotable About a Vertical Axis Extending Through the Main Hopper Discharge

Like Morris and Baskerville, Furrer discloses a seed tender comprising a conveyor. Ex. PK-1006 at Abstract. Unlike Morris and Baskerville, however, Furrer's seed tender further comprises a "support module 12" that supports its main hopper ("individual storage bins 13") above "frame 15":



Id. at Fig. 1 (annotated), 3:59–67.

Furrer further discloses a "turret 28" positioned below the main hopper and "rotatable about a vertical axis" (i.e., pivotable about a first axis of rotation):

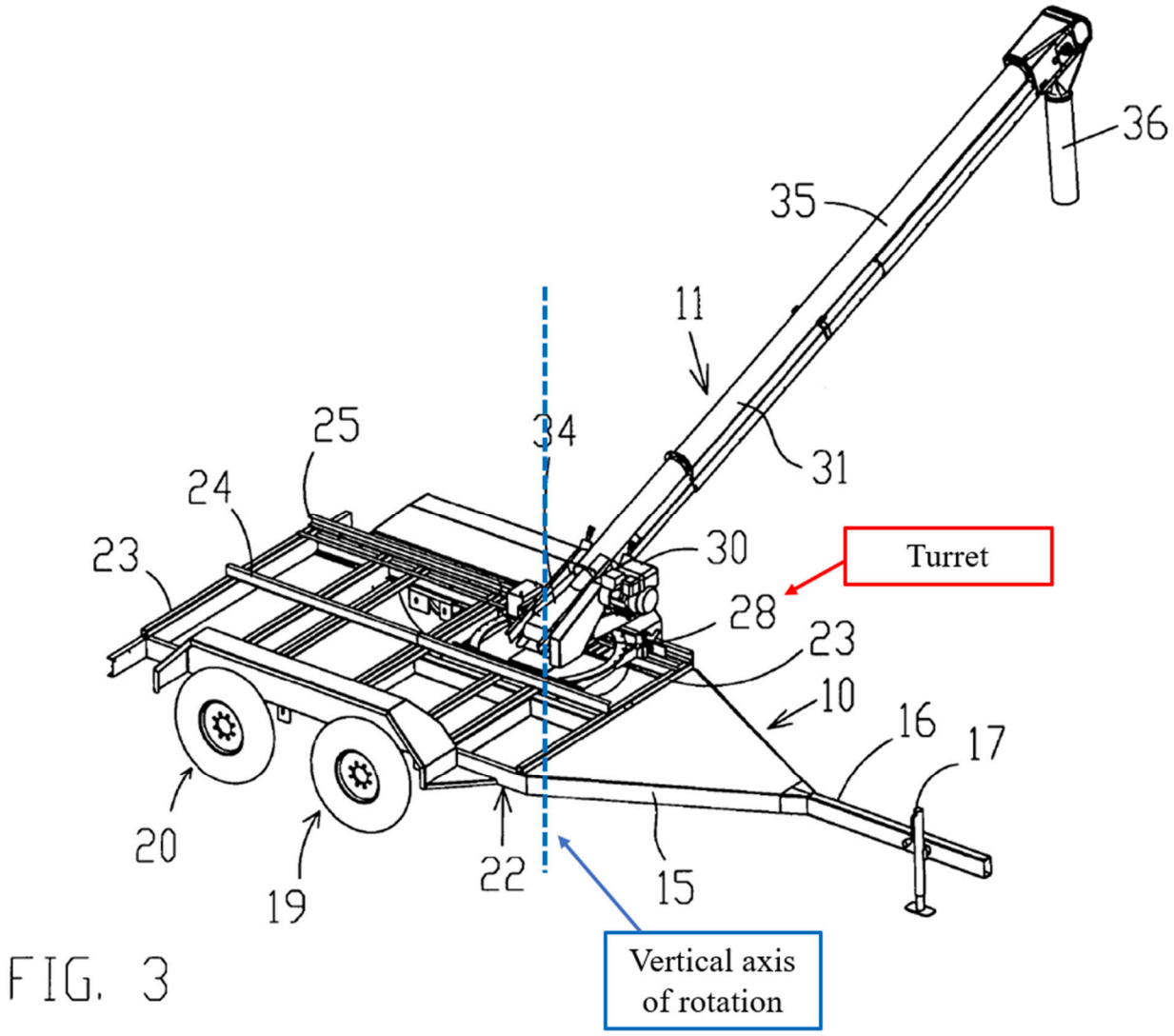
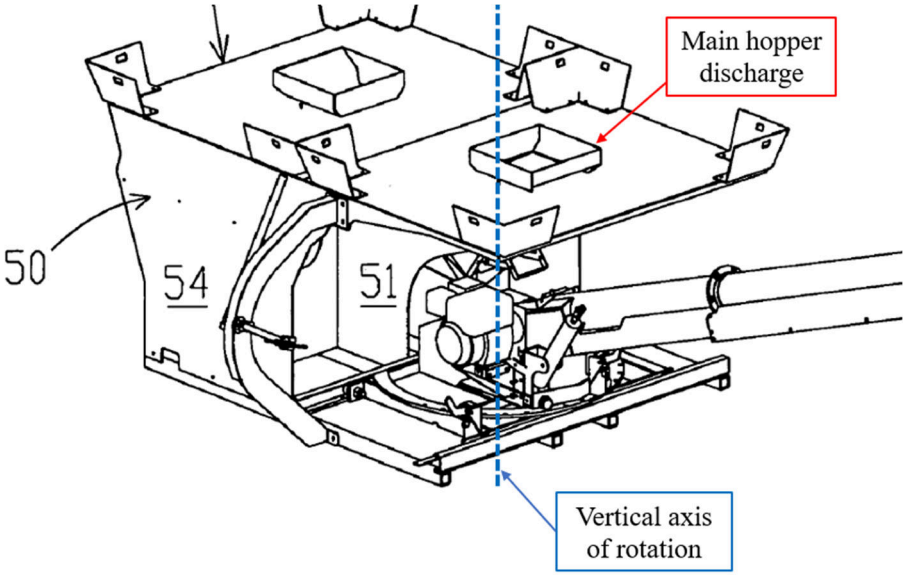


FIG. 3

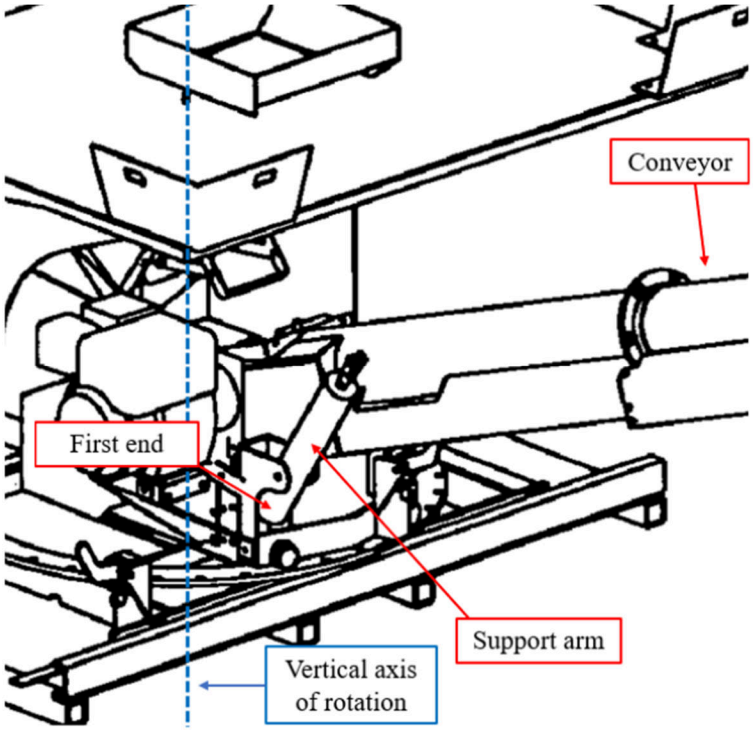
Id. at Fig. 3 (annotated), Abstract, 1:64–65, 4:26–29; *see also* Ex. PK-1001 at Figs. 4–5, 3:44–4:4, Abstract (depicting and describing "base 401" as a horizontal circular "plate" that is "free to rotate about its vertical axis"—i.e., a turret).

As shown below, the turret's vertical axis of rotation (i.e., first axis of rotation) extends through the discharge of the main hopper:



Id. at Fig. 5 (excerpted, annotated).

Furrer's tender further comprises a support arm having a first end that is connected to the turret and proximate the turret's axis of rotation:



Id. (excerpted, annotated).

Because Furrer's support arm is connected to the turret, it too is pivotable about the turret's axis of rotation ("a first axis of rotation proximate said first end of said support arm" that "extends through said main hopper discharge"). Ex. PK-1003 ¶ 93 (quoting limitation 10.3 and 11). Accordingly, Furrer discloses the limitation of claim 11.

2. Reasons to Modify the Morris-Baskerville Combination in View of Furrer

A skilled artisan would have been motivated to modify the Morris-Baskerville combination to incorporate Furrer's teachings. *Id.* ¶ 94. Specifically, he would have been motivated to (1) raise the main hopper and create a space under it that is open on parts of three sides (like Furrer does with its support module 12) and (2) position the first end of the Morris support arm in that open space, with its first axis of rotation extending through the main hopper discharge (like Furrer does with the first end of its support arm connected to turret 28). *Id.* There are several reasons for this.

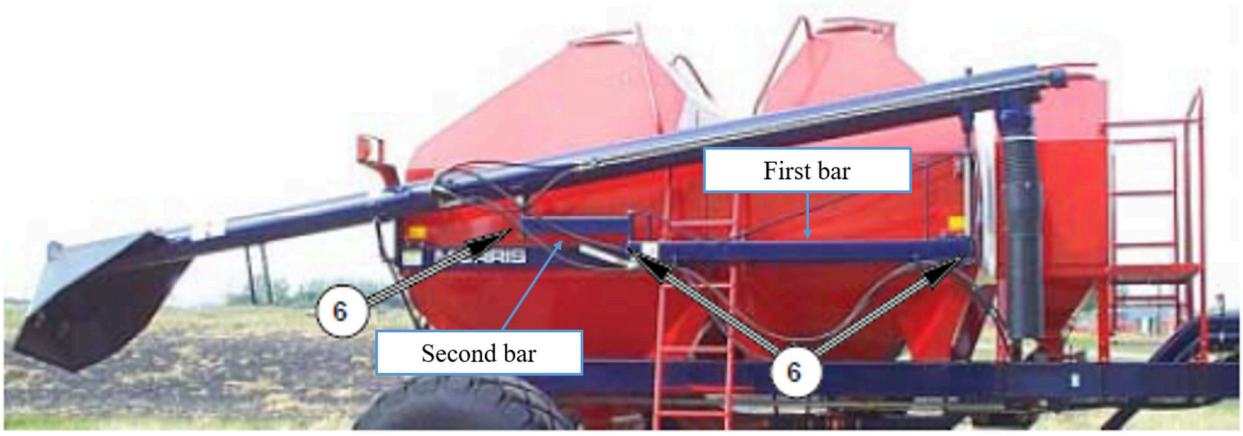
First, a skilled artisan would have looked to Morris, Baskerville, and Furrer because they are in the same field (seed or grain conveyor systems) and address the same problem (improved transport of seed or grain). *Id.* ¶ 95 (citing Ex. PK-1004 at 4-4 ("The optional hydraulic auger is designed to make loading and unloading product from the Air Cart tank very simple and easy."); Ex. PK-1005 at 1:54–56 ("[I]t is clear that a need exists for an improved bulk seed cart with a self contained

conveyor which can be used both for loading and for unloading the seed cart."); Ex. PK-1006 at 1:44–49 ("It is thus desirable to have a seed tender which is not only portable and adaptable to the various situations found in different farms and areas, but which is capable of handling large volumes and considerable weight of seed, and which is also capable of carrying seed containers of different volumes and/or configurations, for maximum flexibility.")).

Second, Furrer discloses that opening the space below the main hopper and positioning the first end of the support arm in that open space provides "great flexibility and adaptability in the positioning of the conveyor, whether for unloading or for transport or storage." Ex. PK-1006 at 4:51–53. For example, "[t]he conveyor may be turned . . . about its vertical axis between: (i) a side position for unloading seed, (ii) a forward position and extending forwardly wherein the conveyor is located between the sides of the trailer and in front of it, for transport, or (iii) to the rear and extending rearwardly, for unloading or transport." *Id.* at 2:27–32. Further, "when the conveyor is in the forward position, it can be used . . . for unloading in a forward location." *Id.* at 4:43–45. By contrast, in the Morris-Baskerville combination, because the main hopper is not raised above the frame and the support arm is connected to the side of the main hopper, the conveyor cannot unload seed forwardly or rearwardly and has only one storage position (on the side). Ex. PK-1003 ¶ 96. Thus, to achieve Furrer's stated benefits ("great flexibility and adaptability in

the positioning of the conveyor, whether for unloading or for transport or storage"), a skilled artisan would have been motivated to modify the Morris-Baskerville combination so the first end of its support arm is under the main hopper and the support arm is rotatable between "a side position for unloading seed" and a forward or rear position "for transport," as Furrer teaches. *Id.*; Ex. PK-1006 at 2:27–32, 4:43–53.

Finally, incorporating Furrer's teachings allows replacement of Morris's folding support arm with a rigid support arm, which provides several benefits. As shown below, Morris's support arm is a two-bar linkage:



Ex. PK-1004 at 7-7 (annotated). This two-bar linkage allows the support arm to change its effective length by increasing or decreasing the angle between the two bars. Ex. PK-1003 ¶ 98. Such variable length is necessary in Morris's tender to maintain the conveyor at the correct distance from the main hopper. *Id.*

Incorporating Furrer's teachings would obviate the need for a variable-

length support arm. *Id.* ¶ 99. By coupling the support arm below the main hopper discharge, as Furrer teaches, the support arm need not have a variable length to maintain the conveyor at the correct distance from the main hopper. *Id.* Rather, the support arm can be a single bar because rotating the support arm about its first rotational axis does not change the distance of the conveyor from the main hopper. *Id.* A skilled artisan would have recognized two benefits of this modification: (1) it reduces the complexity of the support arm by eliminating a hinge, and (2) it makes the position of the conveyor easier to control by eliminating the need for the operator to extend or retract the support arm to correctly position the conveyor. *Id.* Accordingly, a skilled artisan would have been motivated to incorporate Furrer's teachings to gain those benefits.

A skilled artisan also would have reasonably expected success in modifying the Morris-Baskerville combination to incorporate Furrer's teachings. Ex. PK-1003 ¶ 100. These modifications would have been routine, requiring merely the addition of known components (e.g., structures like Furrer's support module 12 and turret 28) according to their known functions (supporting the main hopper above the frame and enabling the support arm to rotate about a vertical axis extending through the main hopper discharge) to achieve predictable results ("great flexibility and adaptability in the positioning of the conveyor"). *Id.* (quoting Ex. PK-1006 at 4:51–53). Therefore, a skilled artisan would have reasonably expected success.

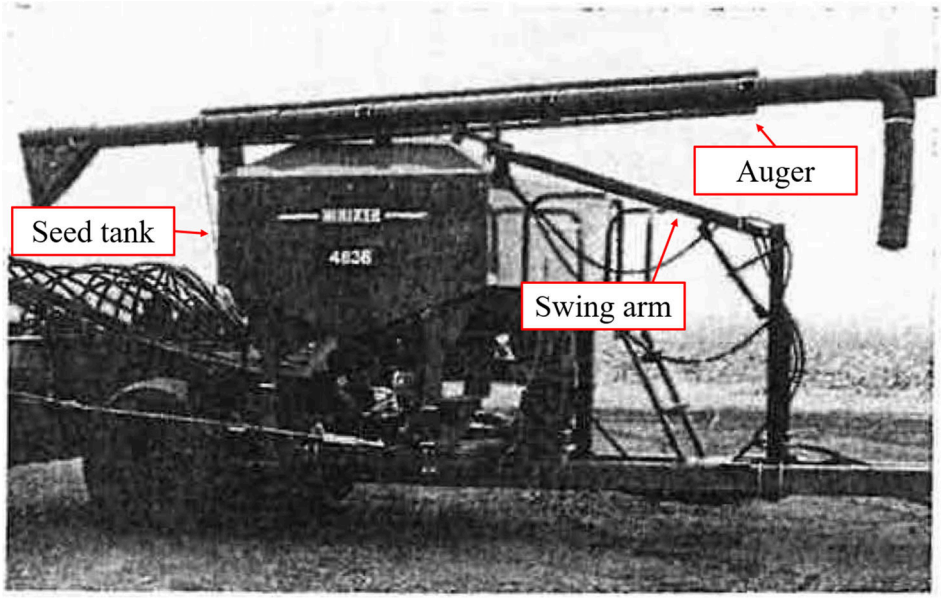
* * *

Because Furrer discloses the limitation of claim 11 and a skilled artisan would have been motivated to modify the Morris-Baskerville combination to incorporate Furrer's teachings, the Board should hold that claim 11 would have been obvious.

C. Ground 3: Hiniker Manual in View of Hiniker Webpage and Furrer (and, If Necessary, Morris)

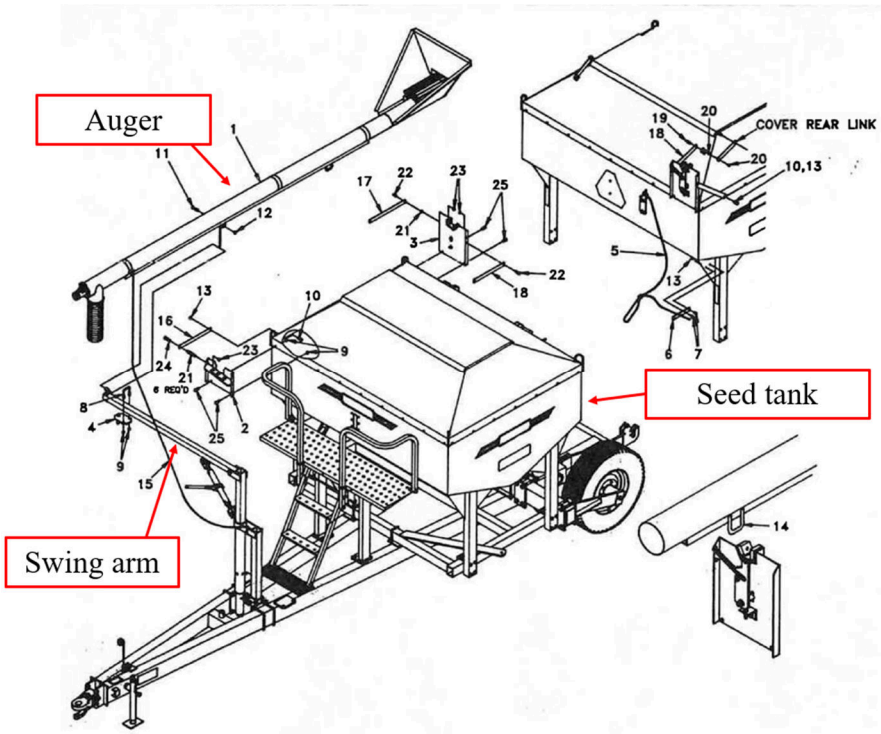
1. Overview of Hiniker Manual

Hiniker Manual discloses an air seeder comprising a seed tank and an auger mounted on a "swing arm":



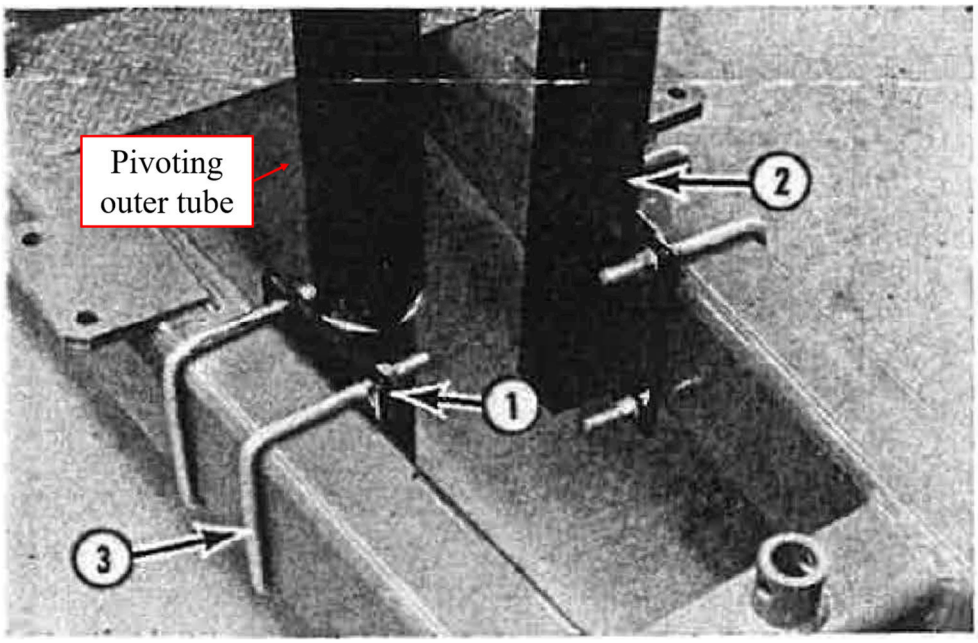
Ex. PK-1007 at 25 (annotated).[4]

[4] All citations to Ex. PK-1007 refer to the page numbers originally printed on each page, not the page numbers Petitioner added.

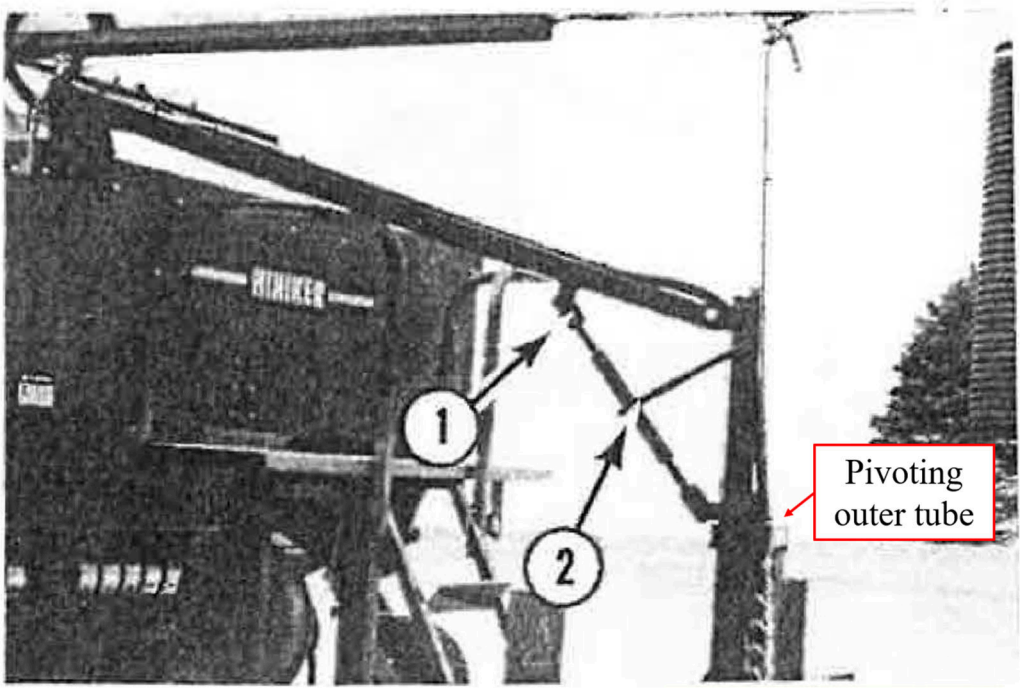


Id. at 38 (annotated); *see also id.* at 37 (referring to "swing arm").

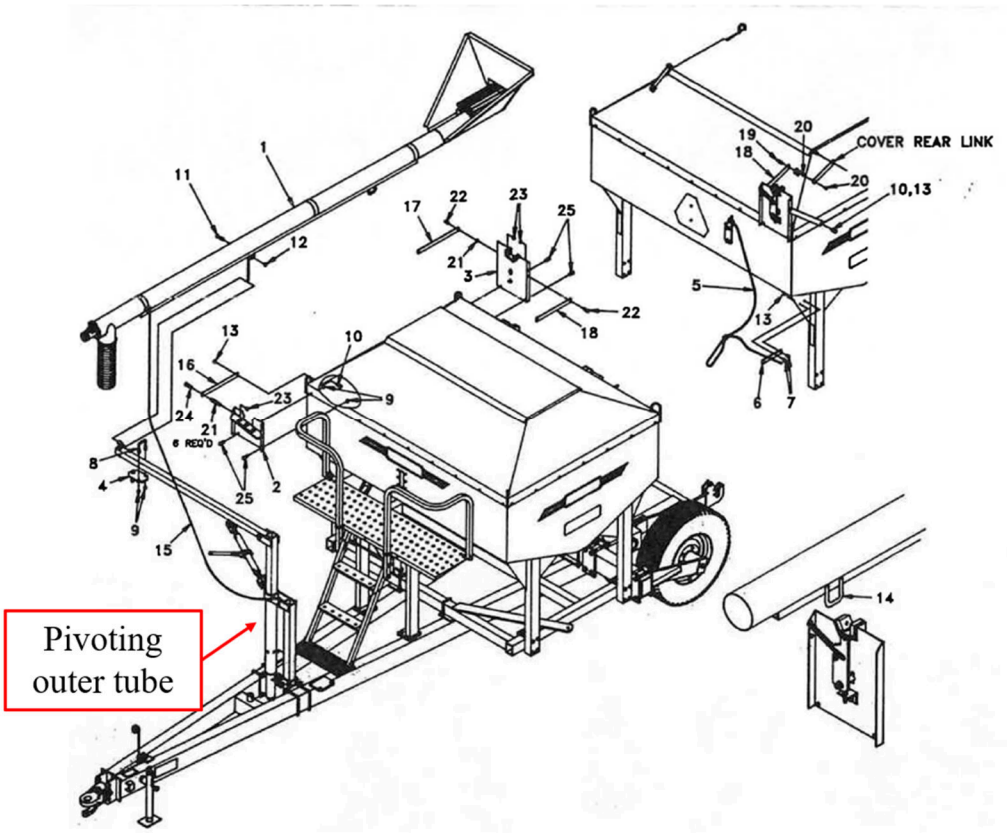
The swing arm is connected to a vertical "pivoting outer tube" that "allows the fill auger to rotate easily." *Id.* at 36, 37.



Id. at 37 (annotated).



Id. (annotated).



Id. at 38 (annotated).

An earlier version of Hiniker Manual was before the examiner during prosecution of the '123 patent, but the examiner issued no rejections based upon Hiniker Manual. *See* Ex. PK-1002. Hiniker Manual was not before the examiner during prosecution of the parent '940 and '047 patents. *See* Exs. PK-1013, PK-1014.

(a) Hiniker Manual Is Prior Art

Hiniker Manual is prior art under pre-AIA § 102(b) because it is a printed publication that was publicly accessible as of January 2, 2001.

Hiniker Manual is like the manuals that the Federal Circuit held were printed publications in *Weber, Inc. v. Provisur Technologies, Inc.*, 92 F.4th 1059 (Fed. Cir.

2024). There, the court reasoned that the manuals "were created for dissemination to the interested public to provide instructions about how to assemble, use, clean, and maintain Weber's slicer, as well as guidance for addressing malfunctions that users might encounter." *Id.* at 1067. The court also noted that the manuals were not confidential. *Id.* at 1067–68. Rather, "Weber employees testified that the operating manuals could be obtained either upon purchase of the Weber food slicer or upon request directed to a Weber employee." *Id.* at 1068 (footnote omitted). And it added that "Weber's declarants provided actual examples of deliveries of the operating manuals to customers." *Id.*

Likewise, here, Hiniker Company distributed a copy of Hiniker Manual to each purchaser of the Hiniker 4800 Air Seeder S/N - 104 between January 2, 2001, and March 16, 2004. Ex. PK-1019 ¶ 3. "For example, a copy of the manual was distributed to Puthoff Repair Sales & Service on January 31, 2001, when Hiniker shipped a 4833 Air Seeder (S/N 4836-0085-104) to Puthoff." *Id.* Hiniker Manual also is not confidential, but rather is available "upon request directed to a [Hiniker] employee," which is how Petitioner obtained it. *Weber*, 92 F.4th at 1068. Hiniker Manual was, moreover, created for dissemination to the interested public to provide instructions about how to assemble, use, clean, and maintain the Hiniker 4800 Air Seeder. *See generally* Ex. PK-1007. It further provides guidance for addressing malfunctions that users might encounter. *See id.* at 4 (noting the manual provides

"[s]ervice information" and instructing users to "[f]ix damage immediately" and "[r]eplace worn or broken parts"); *id.* at 51 (providing contact information). Accordingly, like the manuals in *Weber*, Hiniker Manual is a printed publication.

2. Overview of Hiniker Webpage

Hiniker Webpage is an archived page on Hiniker Company's website describing the features of the Hiniker Company 4800 Series Air Seeder. *See* Ex. PK-1008; *see also* Ex. PK-1009 (showing that Hiniker Webpage is a subpage of the "4800 Air Seeder" page on Hiniker Company's website). Hiniker Webpage states that although the 4800 Series Air Seeder's auger is referred to as a "[f]ill" auger, it "may be used to both fill ***and empty*** the seed hopper when changing seed varieties." Ex. PK-1008.

Hiniker Webpage was not before the examiner during prosecution of the '123 patent, *see* Ex. PK-1002, nor during prosecution of the parent '940 and '047 patents, *see* Exs. PK-1013, PK-1014. However, an information disclosure statement submitted during prosecution of the '123 patent discloses a publication with the same teaching as Hiniker Webpage. *See* Ex. PK-1002 at 267.

(a) Hiniker Webpage Is Prior Art

Hiniker Webpage is prior art under pre-AIA § 102(a) because it is a printed publication that was publicly accessible by March 14, 2006. On that date, the Wayback Machine captured Hiniker Webpage. Ex. PK-1017 ¶ 8. Hiniker Webpage was

therefore publicly accessible no later than March 14, 2006. *Id.*; *see also* MPEP § 2128(II)(E) ("Prior art obtained via the Wayback Machine sets forth a prima facie case that the art was publicly accessible at the date and time provided in the time stamp."); *Valve*, 8 F.4th at 1374–75 ("District courts have taken judicial notice of the contents of webpages available through the Wayback Machine 'as facts that can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.'" (quoting *Erickson v. Neb. Mach. Co.*, No. 15-CV-01147-JD, 2015 WL 4089849, at *1 n.1 (N.D. Cal. July 6, 2015))).

Moreover, persons interested and ordinarily skilled in the art could easily have located Hiniker Webpage through reasonable diligence. Hiniker Company was (and still is) a well-known manufacturer of agricultural machinery. Ex. PK-1003 ¶ 105. And a person interested in Hiniker Company's 4800 Series Air Seeder could have found Hiniker Webpage on the Hiniker Company website by simply clicking the "AGRICULTURAL Equipment" link on the homepage, then clicking the "4800 Air Seeder" link on the next page, then clicking the "4800features" link on the next page. *See* Ex. PK-1009.

3. Overview of Furrer

Furrer discloses a seed tender with a conveyor for transporting seed. Ex. PK-1006 at Abstract. As discussed in § V.B.1 above, Furrer's seed tender comprises a "support module 12" that supports its main hopper ("individual storage bins 13")

above "frame 15," a "turret 28" positioned below the main hopper and "rotatable about a vertical axis," and a support arm coupled to the turret at its first end and to the conveyor at its second end. *Id.* at Abstract, 1:64–65, 3:59–67, 4:26–29.

Furrer was before the examiner during prosecution of the '123 patent, but the examiner issued no rejections based upon Furrer. *See* Ex. PK-1002. Furrer was also before the examiner during prosecution of the parent '047 and '940 patents. Exs. PK-1013, PK-1014.

4. Reasons to Combine Hiniker Manual and Hiniker Webpage

Hiniker Manual and Hiniker Webpage describe the same product family, the Hiniker Company 4800 Series Air Seeder. *See* Ex. PK-1007 at Cover (referring to "4800 Air Seeder"); Ex. PK-1019 ¶ 3 (declaring Hiniker Manual "was distributed to each purchaser of the Hiniker 4800 Air Seeder S/N - 104"); Ex. PK-1009 (showing that Hiniker Webpage is a subpage of the "4800 Air Seeder" page on Hiniker Company's website). A skilled artisan would have looked to both references together because they are from the same company and provide complementary disclosures of similar products. Ex. PK-1003 ¶¶ 108–109. Indeed, Hiniker Manual provides details that Hiniker Webpage does not, and vice versa. For example, Hiniker Manual explains how to assemble and operate the auger, Ex. PK-1007 at 36–41, and Hiniker Webpage explains that the auger "may be used to both fill and empty the seed hopper," Ex. PK-1008. Accordingly, a skilled artisan would have

been motivated to provide the full capabilities of the auger, and thus combine the teachings of Hiniker Manual and Hiniker Webpage.

A skilled artisan also would have had a reasonable expectation of success in combining the teachings of Hiniker Manual and Hiniker Webpage. Because both references describe the same product family, a skilled artisan would have known that combining the references was not only achievable, but also had already been achieved by Hiniker. Ex. PK-1003 ¶ 110. A skilled artisan also would have viewed this combination as requiring no more than routine skill since it had already been done. *Id*. Accordingly, a skilled artisan would have had a reasonable expectation of success in achieving the combination.

5. Reasons to Modify the Hiniker Combination in View of Furrer

A skilled artisan would have been motivated to modify the Hiniker combination to incorporate Furrer's teachings. *Id.* ¶ 112. Specifically, a skilled artisan would have been motivated to (1) open at least part of three sides of the space under the main hopper (e.g., like Furrer does with its support module 12) and (2) position the first end of the Hiniker support arm in that open space, with its first axis of rotation extending through the main hopper discharge (e.g., like Furrer does with the first end of its support arm connected to turret 28). *Id.* There are several reasons why a skilled artisan would have been motivated to make these modifications.

First, a skilled artisan would have looked to the Hiniker references and Furrer because they are in the same technical field (seed or grain conveyor systems) and address the same problem (improved transport of seed or grain). *Id.* ¶ 113 (citing Ex. PK-1007 at 36 ("The fill auger support . . . allows the fill auger to rotate easily for use in the field or for transporting."); *id.* at 40 ("The Fill Auger is designed for one-man operation."); Ex. PK-1006 at 1:44–49 ("It is thus desirable to have a seed tender which is not only portable and adaptable to the various situations found in different farms and areas, but which is capable of handling large volumes and considerable weight of seed, and which is also capable of carrying seed containers of different volumes and/or configurations, for maximum flexibility.")).

Second, Furrer discloses that opening the space below the main hopper and positioning the first end of the support arm in that open space provides "great flexibility and adaptability in the positioning of the conveyor, whether for unloading or for transport or storage." Ex. PK-1006 at 4:51–53. For example, "[t]he conveyor may be turned . . . about its vertical axis between: (i) a side position for unloading seed, (ii) a forward position and extending forwardly wherein the conveyor is located between the sides of the trailer and in front of it, for transport, or (iii) to the rear and extending rearwardly, for unloading or transport." *Id.* at 2:27–32. Further, "when the conveyor is in the forward position, it can be used . . . for unloading in a forward location." *Id.* at 4:43–45. By contrast, in the Hiniker combination, because

the space below the main hopper is open on only one side and the support arm is in front of the main hopper, the conveyor cannot unload seed forwardly or rearwardly and has only one storage position. Ex. PK-1003 ¶ 114. Thus, to achieve Furrer's stated benefits ("great flexibility and adaptability in the positioning of the conveyor, whether for unloading or for transport or storage"), a skilled artisan would have been motivated to modify the Hiniker combination so the first end of its support arm is under the main hopper and the support arm is rotatable between "a side position for unloading seed" and a forward or rear position "for transport," as Furrer teaches. *Id.*; Ex. PK-1006 at 2:27–32, 4:43–53.

Finally, the proposed modifications would lower the center of gravity of the seed tender, making it more stable and less likely to tip over. Ex. PK-1003 ¶ 115. Moving the first end of the Hiniker support arm below the main hopper (1) lowers the support arm, (2) lowers the auger conveyor, and (3) shortens or obviates the Hiniker pivoting outer tube and square inner tube. *Id.* Each of these changes would lower the seed tender's center of gravity, which increases its stability. *Id.* Thus, a skilled artisan would have been motivated to make the proposed modifications to achieve improved stability. *Id.*

A skilled artisan also would have had a reasonable expectation of success in modifying the Hiniker combination to incorporate Furrer's teachings. *Id.* ¶ 116. These modifications would have been a routine design change, requiring merely

the addition of known components (e.g., structures like Furrer's support module 12 and turret 28) according to their known functions (supporting the main hopper above the frame and enabling the support arm to rotate about a vertical axis extending through the main hopper discharge) to achieve predictable results (e.g., "great flexibility and adaptability in the positioning of the conveyor" and greater stability). *Id.* (quoting Ex. PK-1006 at 4:51–53). Therefore, a skilled artisan would have reasonably expected success with these modifications.

6. Independent Claim 10

(a) [10.pre] A seed or grain tender comprising:

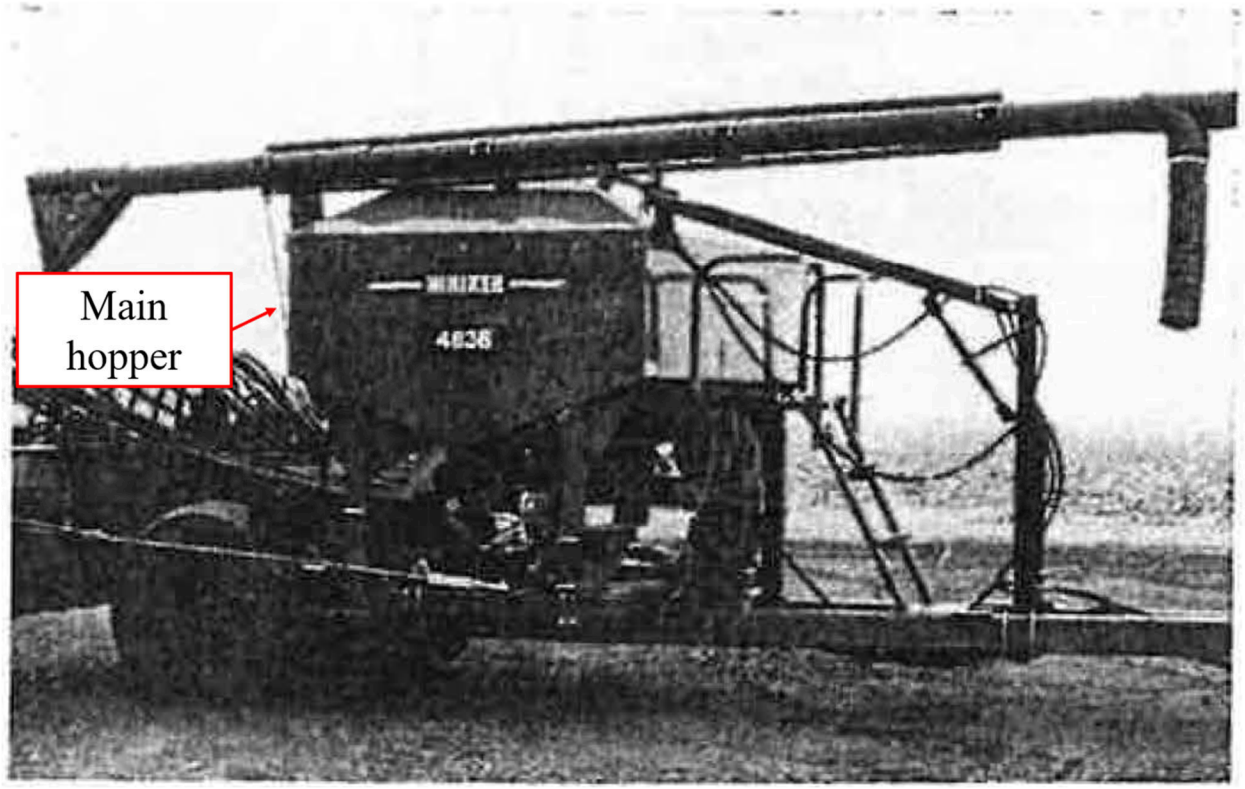
As explained in § V.A.4(a) above, the preamble is not limiting. In any event, the Hiniker-Furrer combination discloses a seed or grain tender because the '123 patent equates a "tender" with a "carrier," and Hiniker Manual discloses an "air seeder cart" comprising a "tank" for carrying seeds. Ex. PK-1003 ¶ 119; Ex. PK-1007 at Cover, 36; Ex. PK-1001 at Title, Abstract, 1:18–19, 1:46–47.

If Patent Owner argues the Hiniker-Furrer combination is not a tender, it would have been obvious to apply the combination to a tender. Ex. PK-1003 ¶ 120. The Hiniker-Furrer combination is analogous to a tender with additional components for planting seeds. *Id.* A skilled artisan seeking to make a tender would have been motivated to design a tender based on this combination, but without the seed-planting components, to achieve the benefits discussed in § V.C.5 above. *Id.* A

skilled artisan also would have reasonably expected success in doing so because it would merely require removing the seed-planting components. *Id.*

(b) [10.1] a main hopper having an upper portion with a main hopper intake opening and a lower portion with a main hopper discharge;

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 121. Hiniker Manual discloses a "seed tank" (main hopper) having an upper portion with a main hopper intake opening and a lower portion with an "outlet" (main hopper discharge):



Ex. PK-1007 at 25 (annotated); *see also id.* (referring to "seed tank outlet").

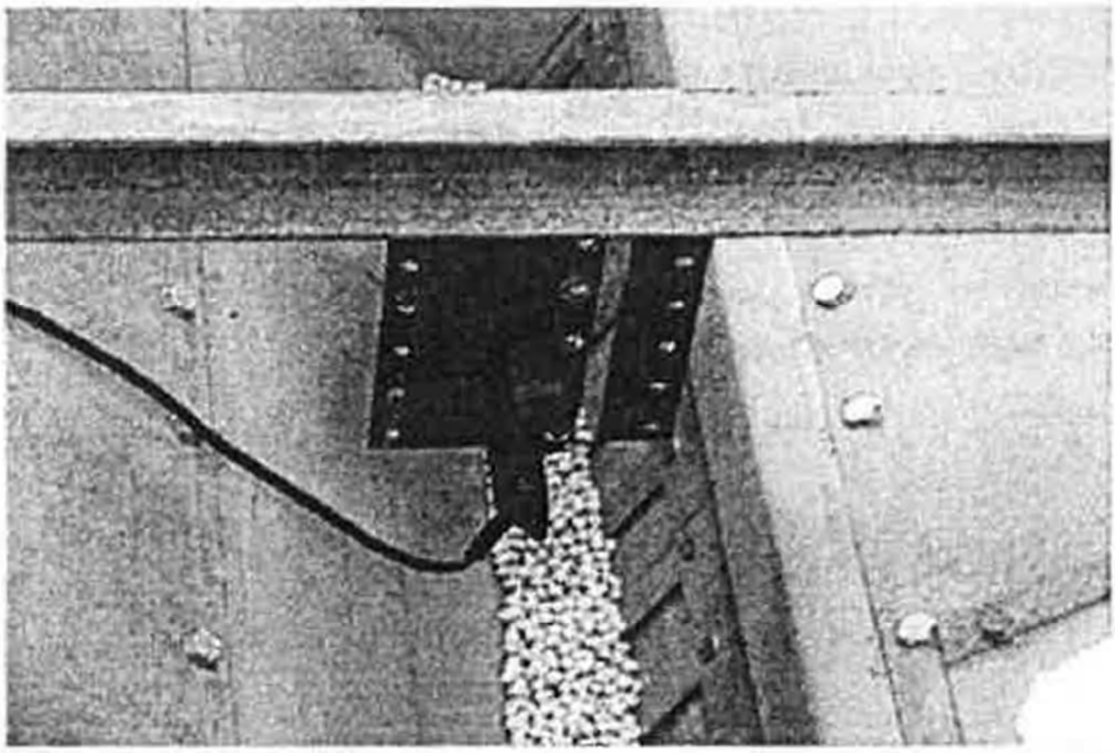
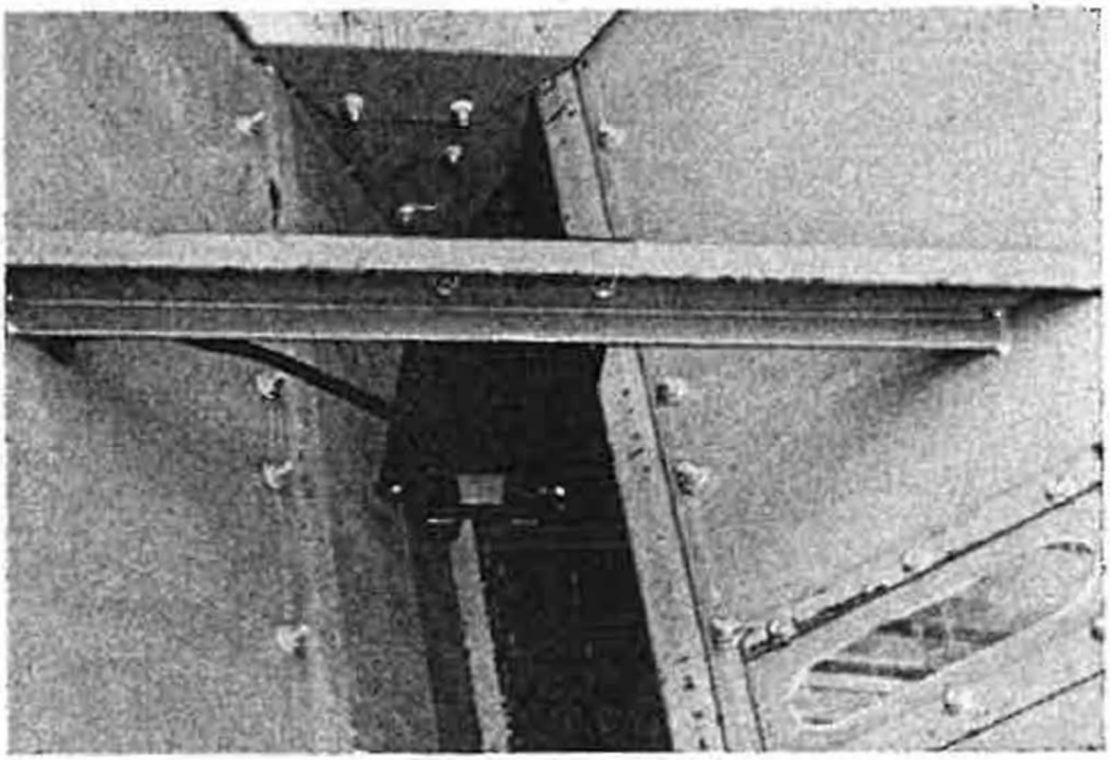
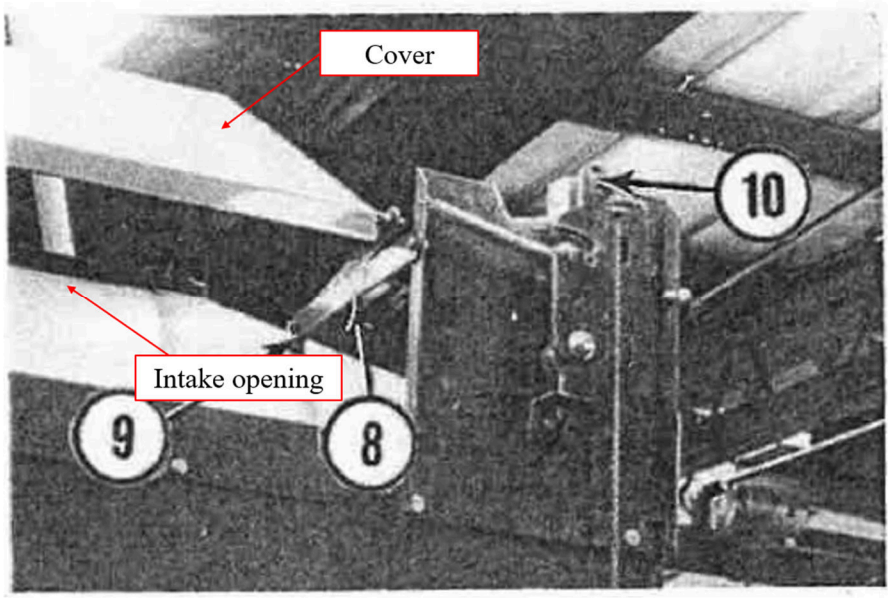


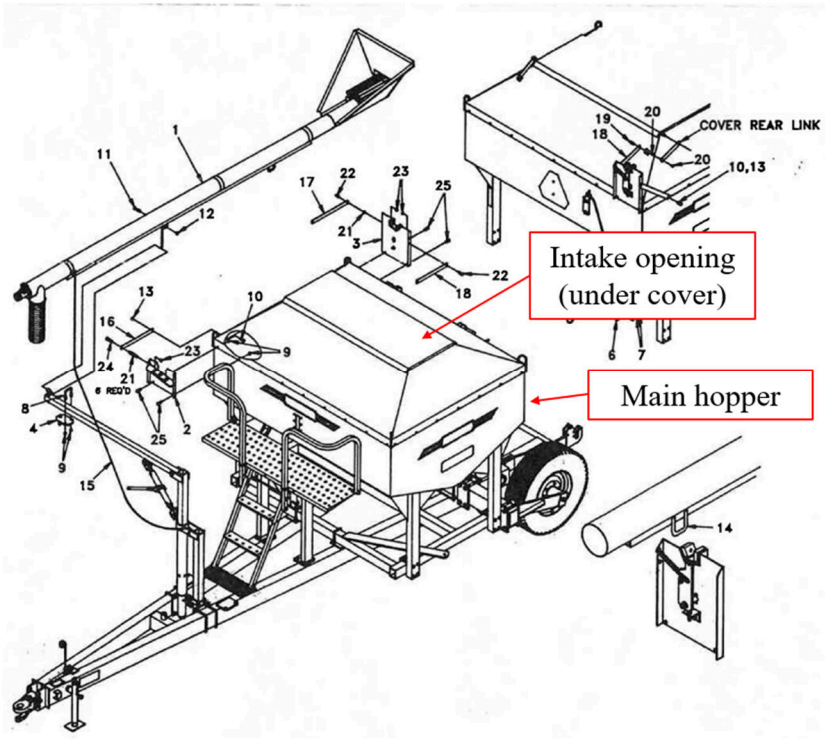
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Id. at 46.



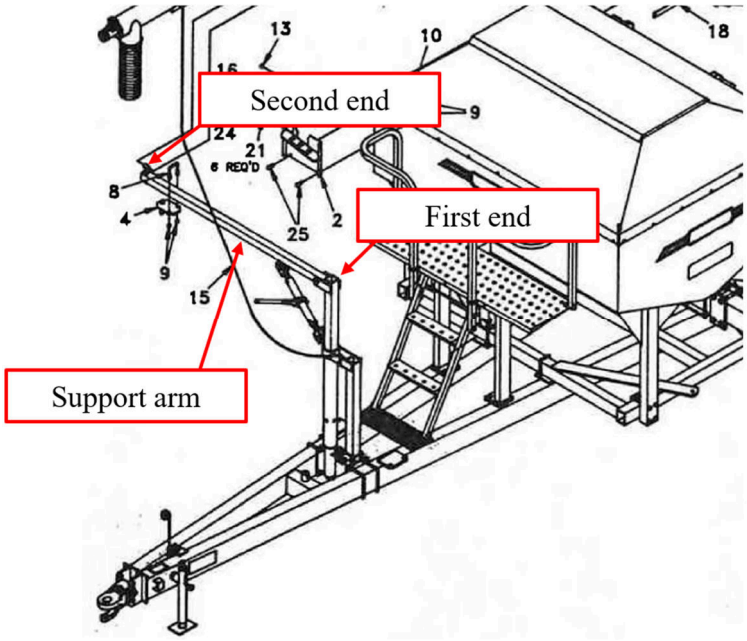
Id. at 36 (annotated).



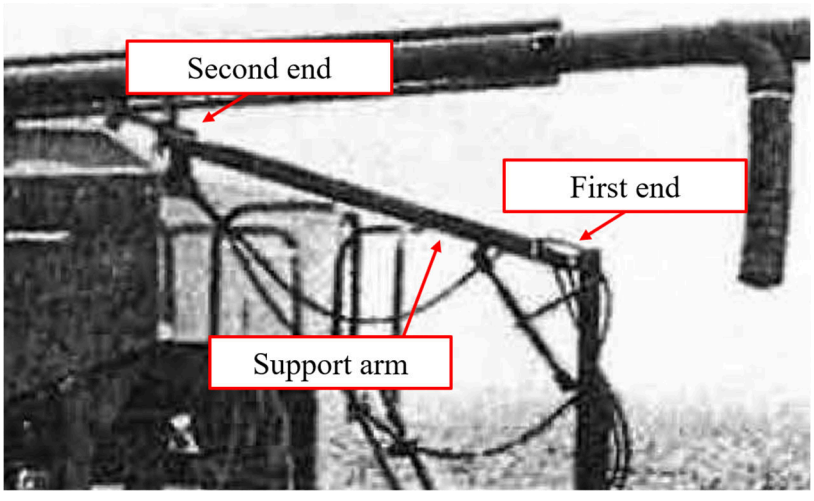
Id. at 38 (annotated); *see also* Ex. PK-1008 ("Two easily accessible slide gates permit complete hopper cleanout without any scooping."); Ex. PK-1001 at 1:48–49 ('123 patent stating the "main hopper" is "for holding seed").

(c) [10.2] a support arm having a first end proximate said lower portion of said main hopper and a second end;

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 122–123. Hiniker Manual discloses a "swing arm" (support arm) having first and second ends. Ex. PK-1007 at 37.



Id. at 38 (annotated).

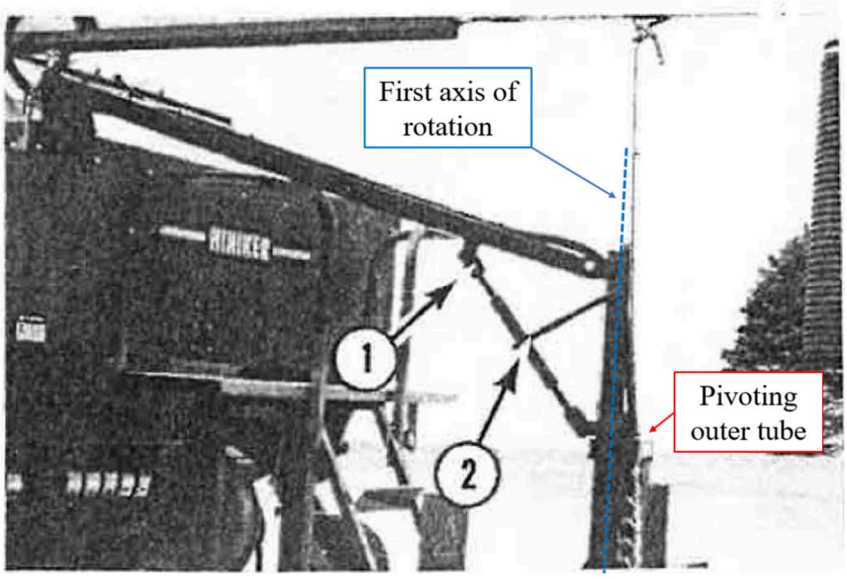


Id. at 25 (annotated).

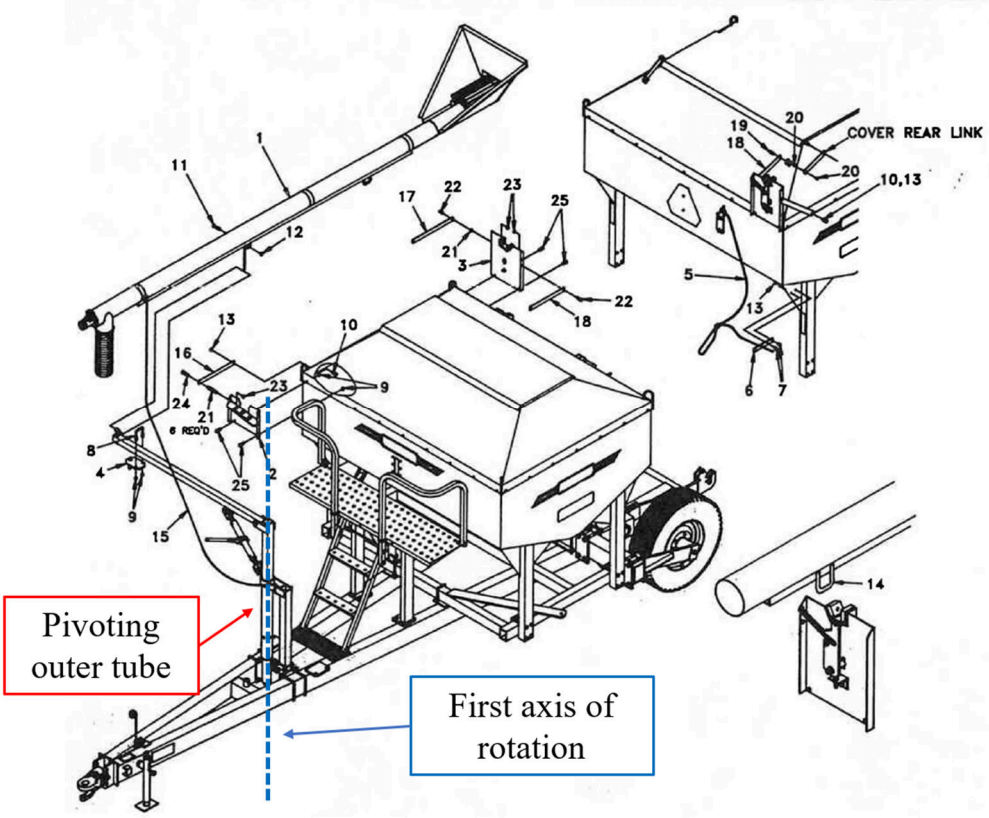
In the Hiniker-Furrer combination, the first end of the Hiniker support arm is repositioned below the main hopper, as explained in § V.C.5 above. Thus, the first end of the support arm in the Hiniker-Furrer combination is proximate the lower portion of the main hopper. Ex. PK-1003 ¶ 123.

(d) [10.3] wherein said support arm is pivotable about a first axis of rotation proximate said first end of said support arm to cause said support arm to be movable between an operating position wherein said support arm extends outwardly relative to said main hopper and a storage position wherein said support arm is folded inwardly towards said main hopper in relation to said operating position,

The Hiniker-Furrer combination discloses this limitation. *Id.* ¶¶ 124–126. Regarding the first part of this limitation, Hiniker Manual discloses that the first end of the support arm is connected to a "***pivoting*** outer tube" that "allows the fill auger to ***rotate***" (pivot) about a first axis of rotation proximate the first end of the support arm. Ex. PK-1007 at 36–37.



Id. at 37 (annotated).



Id. at 38 (annotated).

This ability for the support arm to pivot about an axis of rotation proximate its first end is maintained in the Hiniker-Furrer combination, as explained in § V.C.5 above. Thus, the support arm of the Hiniker-Furrer combination is pivotable about a first axis of rotation proximate the first end of the support arm. Ex. PK-1003 ¶ 125.

Regarding the remainder of this limitation, as explained in § V.C.5 above, a skilled artisan would have been motivated to modify the Hiniker combination so the first end of its support arm is under the main hopper and the support arm is rotatable between "a side position for unloading seed" and a forward or rear position

"for transport," as Furrer teaches. Ex. PK-1006 at 2:27–32; *see also* Ex. PK-1003 ¶ 126 (Mr. Prairie explaining that Furrer's transport position is a storage position because it is for storing the conveyor during transport, rather than loading or unloading). The following figures illustrate Furrer's operating and storage positions:

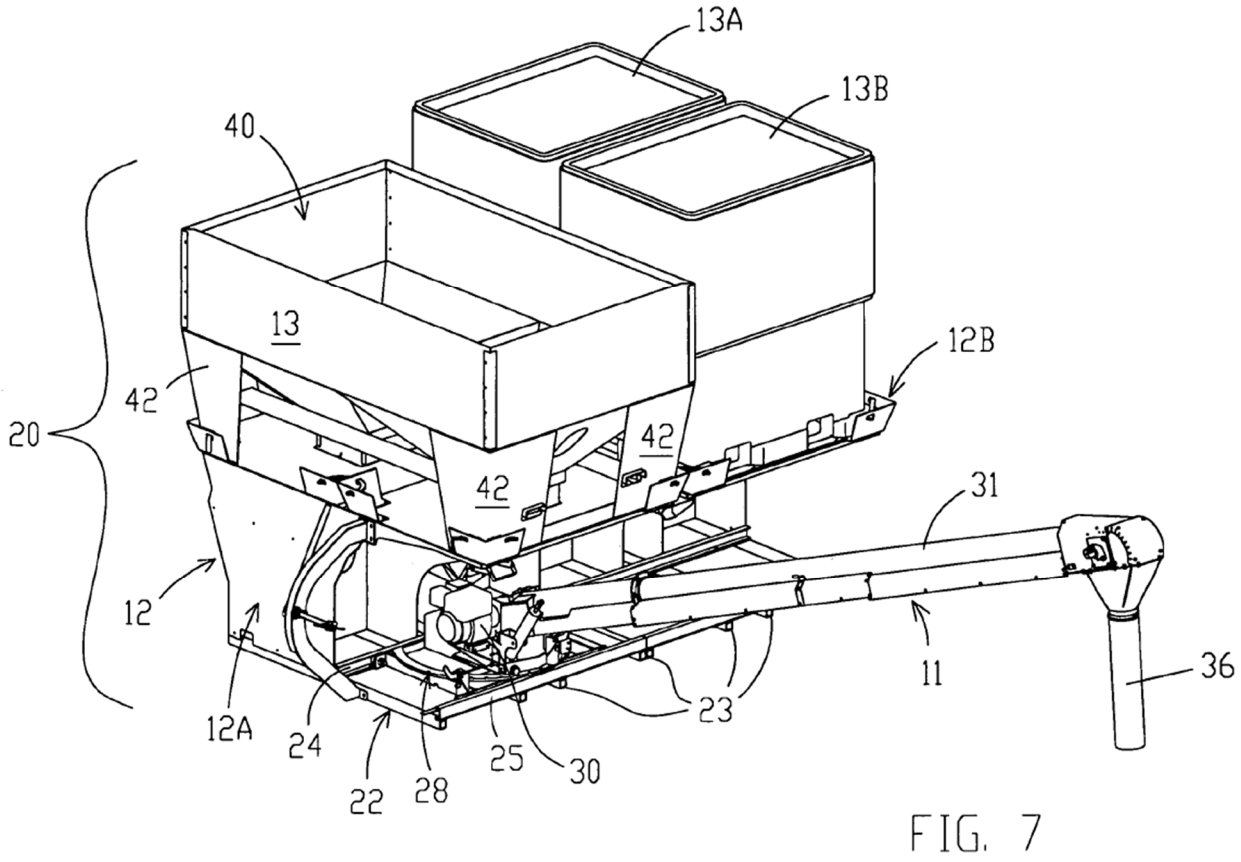
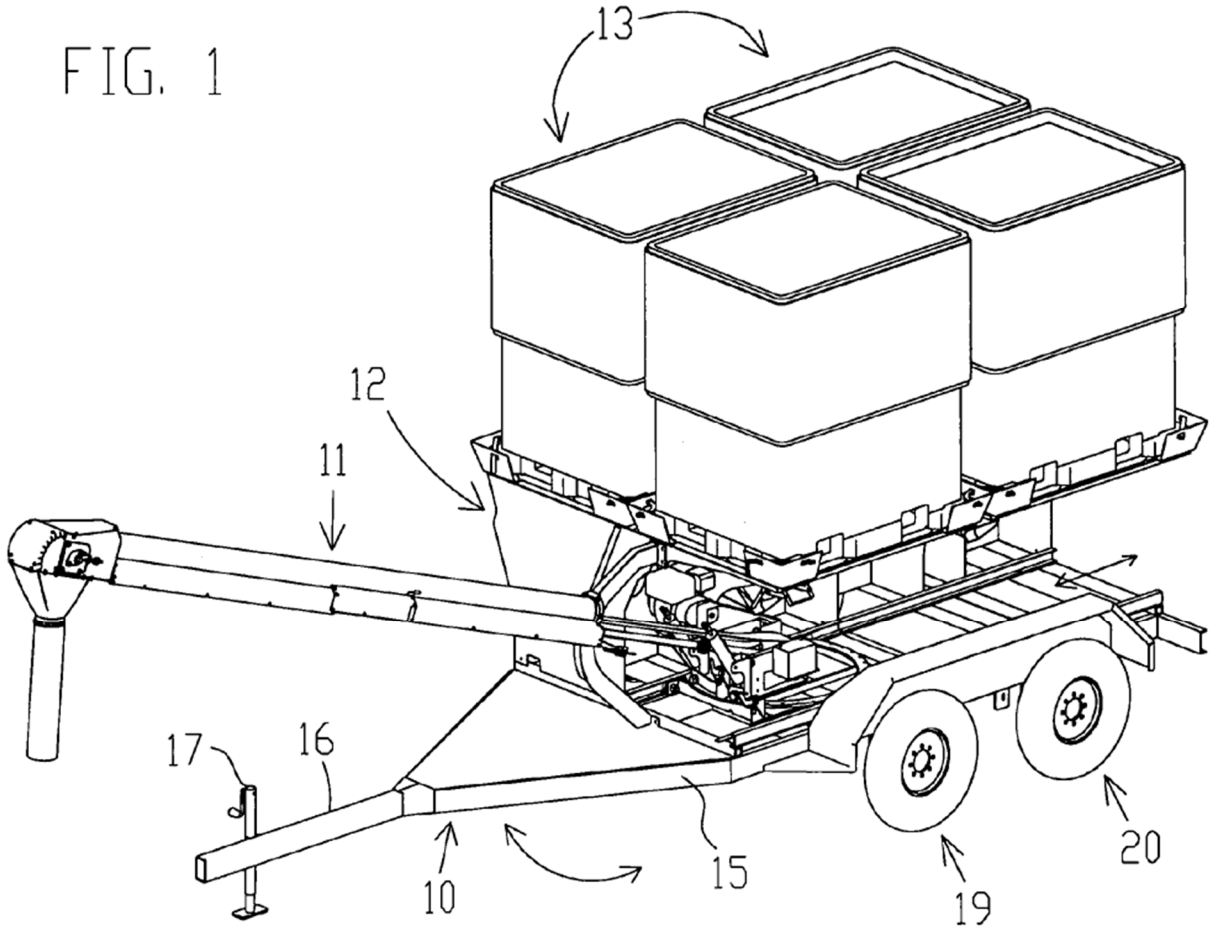


FIG. 7

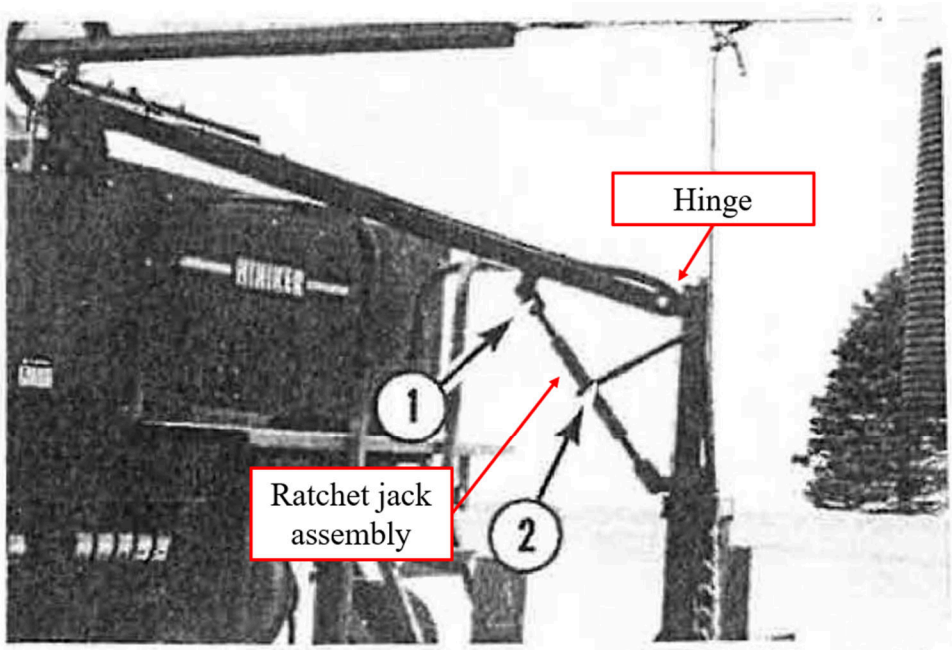
Ex. PK-1006 at Fig. 7 (showing operating position); *accord* Ex. PK-1001 at Fig. 2.



Ex. PK-1006 at Fig. 1 (showing storage position); *accord* Ex. PK-1001 at Fig. 6.

(e) [10.4] said support arm further being pivotable about a second axis of rotation proximate said first end of said support arm to cause an elevation of said second end of said support arm to be adjustable;

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 127–129. Hiniker Manual discloses that the first end of the support arm has a hinge and "ratchet jack assembly":

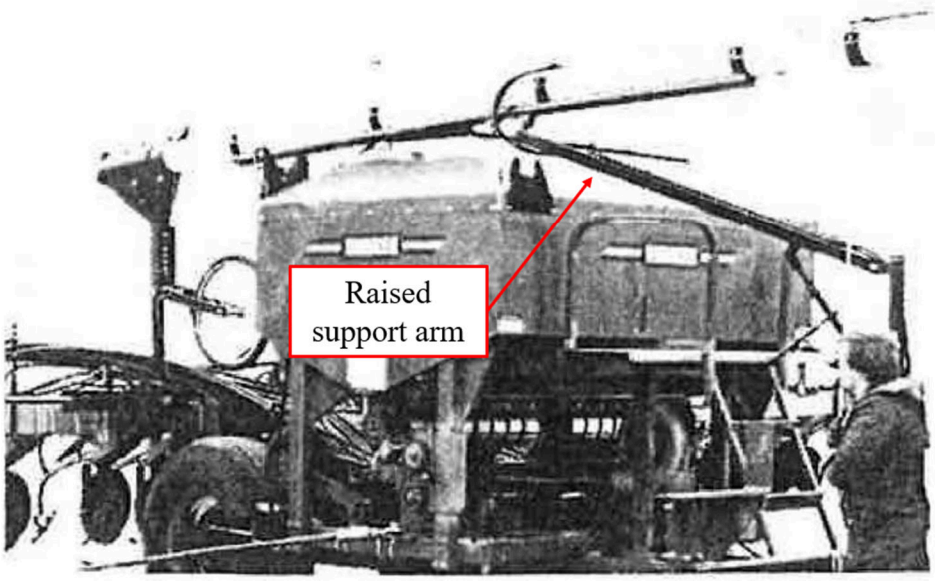


Pin ratchet jack assembly to swing arm (arrow 1) with tahe pin provided. Install ratchet jack lever (arrow 2) with the pin provided.

Ex. PK-1007 at 37 (highlighted, annotated).

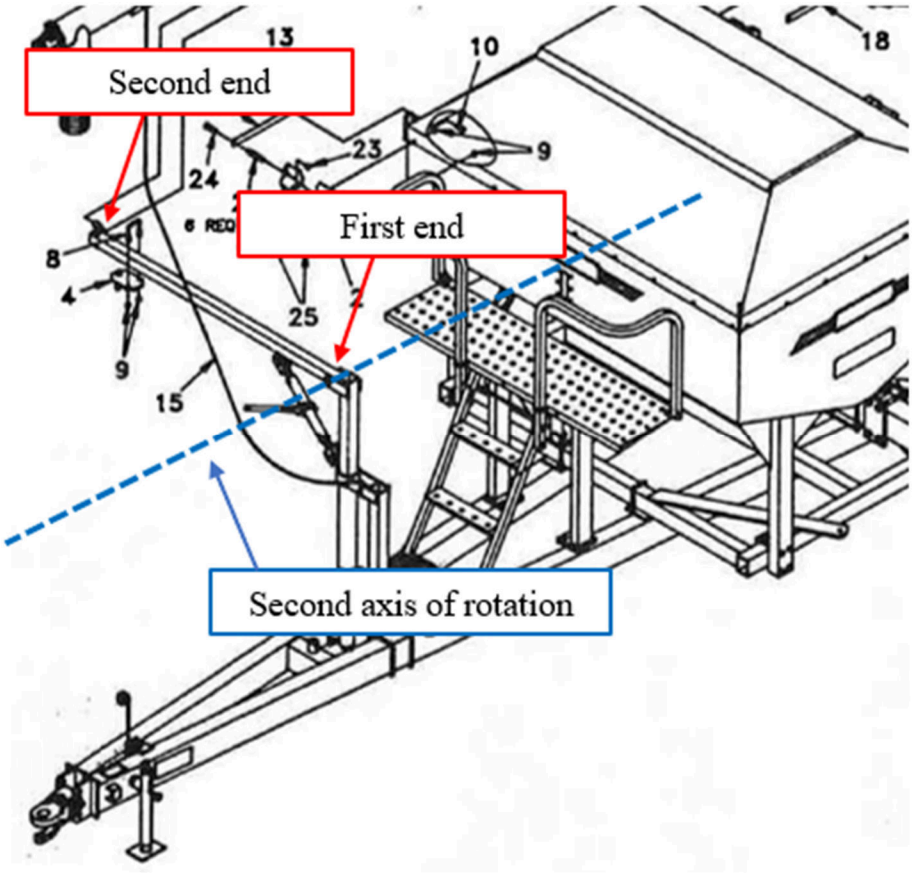
Hiniker Manual further discloses that the ratchet jack assembly is, as its name suggests, used to jack the support arm up and down:

3. Ratchet auger out of front auger support.



Id. at 41 (highlighted, annotated); *see also id.* ¶ 4 (instructing user to "lower the auger to the correct height for filling, by using the ratchet"); *see also* Ex. PK-1006 at Fig. 5, 4:45–47 (Furrer similarly disclosing a hinge at the first end of the support arm, allowing the conveyor to pivot about a horizontal axis).

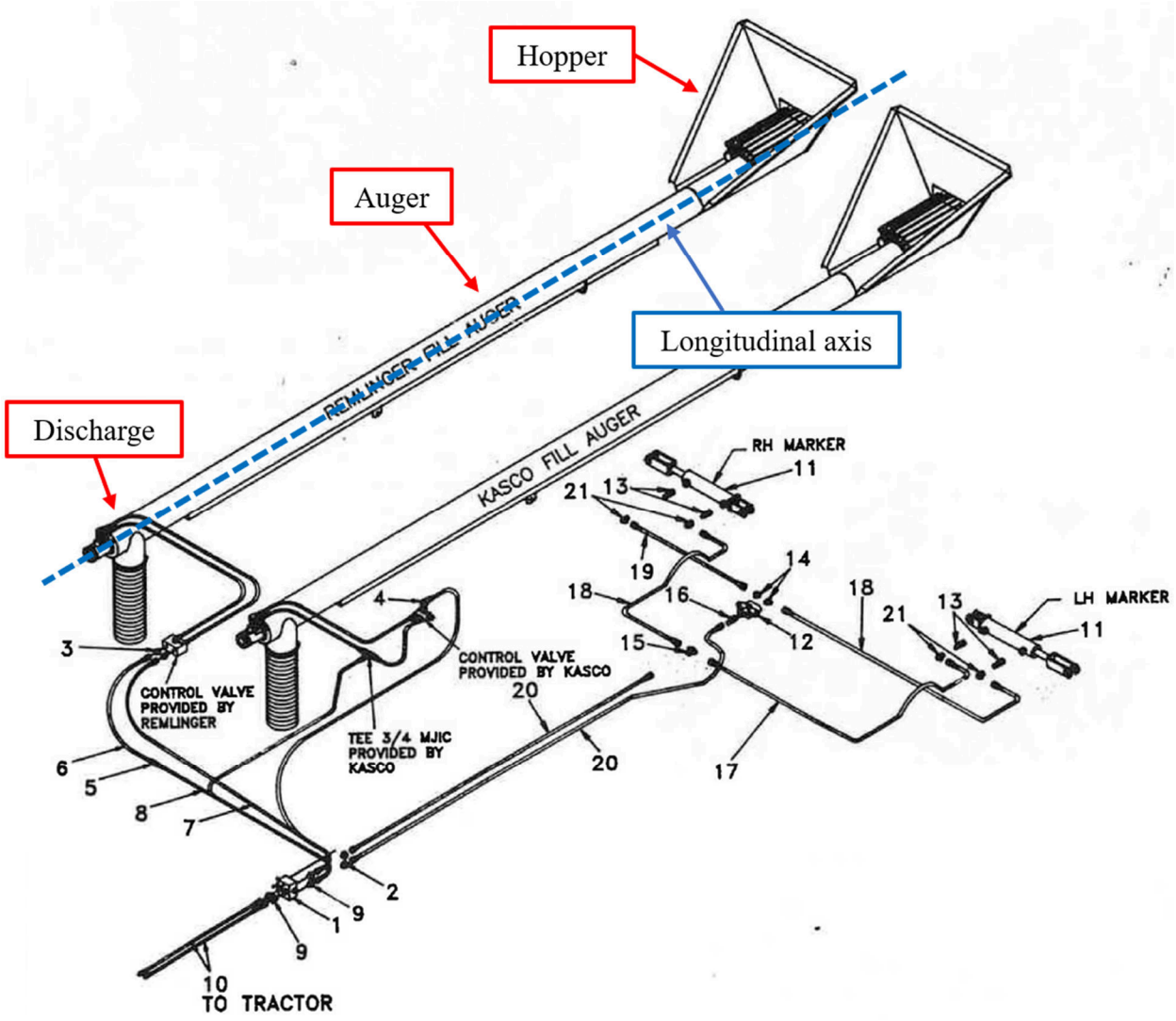
Thus, the support arm of the Hiniker-Furrer combination can pivot about a second (horizontal) axis of rotation proximate the first end of the support arm to cause an elevation of the second end of the support arm to be adjustable:



Ex. PK-1007 at 38 (annotated).

(f) [10.5] a conveyor having a longitudinal axis and first and second ends, a conveyor hopper at said first end, a conveyor discharge at said second end, and an internal elevator for moving seed or grain from said conveyor hopper to said conveyor discharge; and

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 130–135. Hiniker Manual discloses an auger having a longitudinal axis, a "hopper end" (first end), a second end, a "hopper" at the first end, and a discharge at the second end:



Ex. PK-1007 at 42 (annotated); *see also id.* at 41 (referring to "hopper end of auger").

Hiniker's auger is a conveyor. Ex. PK-1003 ¶ 131. As explained above in § V.A.4(f), an auger is a type of conveyor. *See* Ex. PK-1001 at 1:24–27; Ex. PK-1021 at 2:37–40 ("An ***auger conveyor*** is rotatably mounted within the auger housing and is adapted to ***convey*** the seed."); Ex. PK-1022 at 1:33–36 ("An air cart as described above typically includes a ***conveyor in the form of an auger***."); *id.* at

2:43–45. Thus, Hiniker's auger is a conveyor.

Even if Hiniker's auger were not a conveyor, it would have been obvious to replace Hiniker's auger with Furrer's conveyor in the Hiniker-Furrer combination. Ex. PK-1003 ¶ 132. Furrer discloses a "conveyor 11" having a longitudinal axis, first and second ends, an "inlet hopper 34" (conveyor hopper) at the first end, and a "discharge tube 36" (conveyor discharge) at the second end:

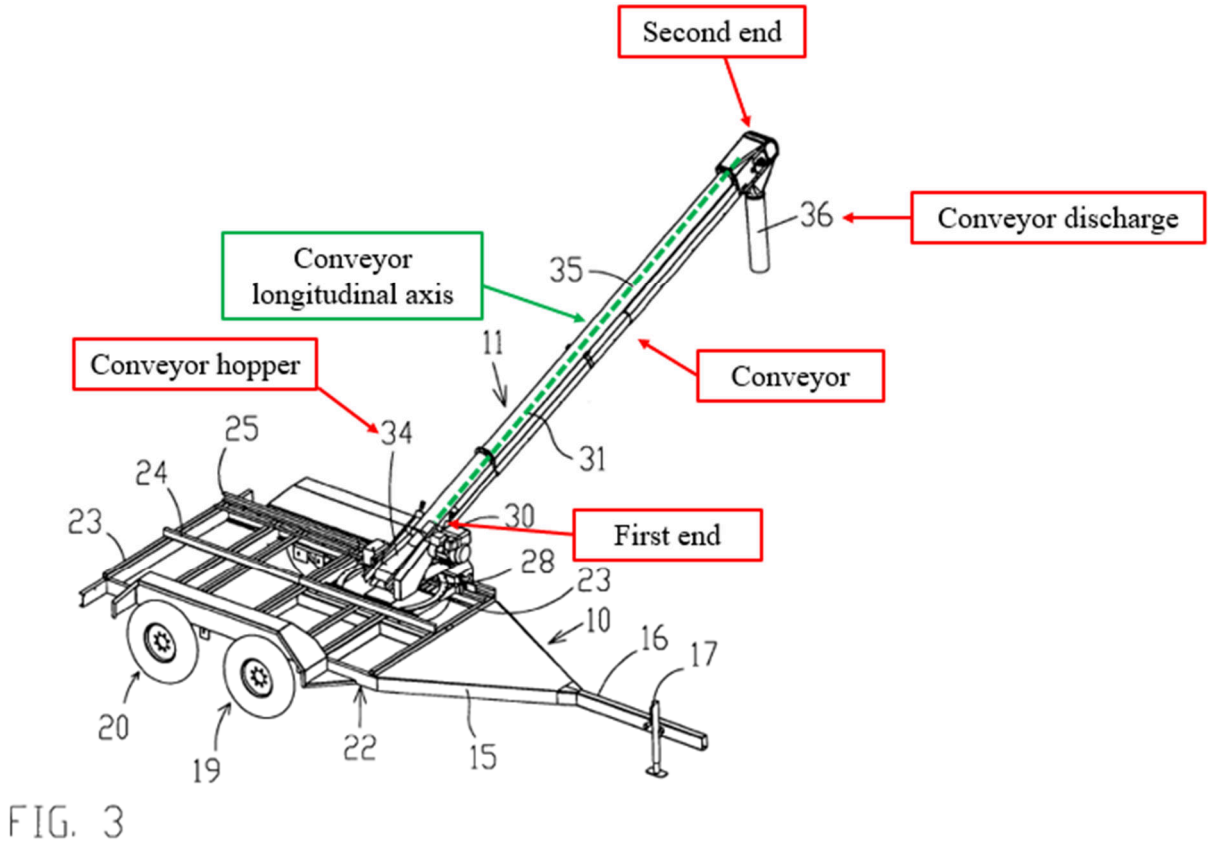


FIG. 3

Ex. PK-1006 at Fig. 3 (annotated), 4:34–38.

A skilled artisan would have been motivated to replace Hiniker's auger with Furrer's conveyor because conveyors were known to provide several benefits over augers. Ex. PK-1003 ¶ 133. For example, Furrer teaches that using a conveyor to

transfer seed is "preferred" over using an auger. Ex. PK-1006 at 4:34–35; *see also id.* at 4:33–34 ("Although less desirable, the conveyor could be an auger."). Hitch similarly teaches that "conveyors are ideal appliances in that they can run at relatively high speeds with a moderate expenditure of power." Ex. PK-1011 ¶ 1. Hitch further states that conveyors "are ideal for use with grain" and "are also capable of rendering good service in handling other materials such as seeds and fertilizer." *Id.* ¶ 2. Indeed, the background section of the '123 patent acknowledges that conveyors were "well known" and "often used for moving more expensive payload, such as seed." Ex. PK-1001 at 1:24–27. These known benefits would have motivated a skilled artisan to use a conveyor, rather than an auger, in the Hiniker-Furrer combination. Ex. PK-1003 ¶ 133.

A skilled artisan also would have had a reasonable expectation of success in modifying the Hiniker-Furrer combination to use a conveyor rather than an auger. *Id.* ¶ 134. As the '123 patent admits, conveyors were "well known" and commonly used at the time of the alleged invention. Ex. PK-1001 at 1:24–27. Indeed, "[c]onveyors have been used in the transportation of grain since the 1800's." Ex. PK-1011 ¶ 1. And the Hiniker-Furrer combination would use a conveyor according to its known function (conveying seed or grain) to achieve predictable results (e.g., efficient transport of seed or grain). Ex. PK-1003 ¶ 134. Therefore, a skilled artisan would have reasonably expected success with this modification.

In any event, the Board need not address whether it would have been obvious to replace Hiniker's auger with Furrer's conveyor because, as explained above, Hiniker's auger is a conveyor. *Id.* ¶ 131.

Regardless of whether the Hiniker-Furrer combination uses an auger-type or belt-type conveyor, the combination comprises an internal elevator (either a screw or belt) that moves seed or grain from the conveyor hopper to the conveyor discharge. *Id.* ¶ 135; Ex. PK-1007 at 41, 42; Ex. PK-1006 at 4:34–38 ("seed is moved by a cleated belt from an inlet hopper 34 (FIG. 3) . . . to a discharge tube 36").

(g) [10.6] said second end of said support arm being coupled with said conveyor between said first and second conveyor ends,

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 136–137. Hiniker Manual discloses a "swing arm pivot" that couples the second end of the support arm with the auger conveyor:

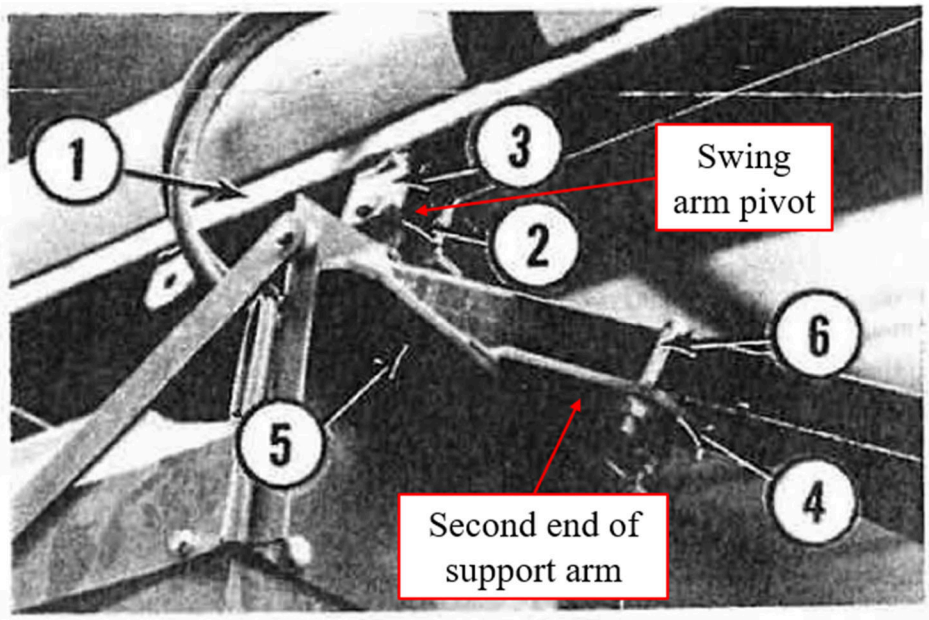
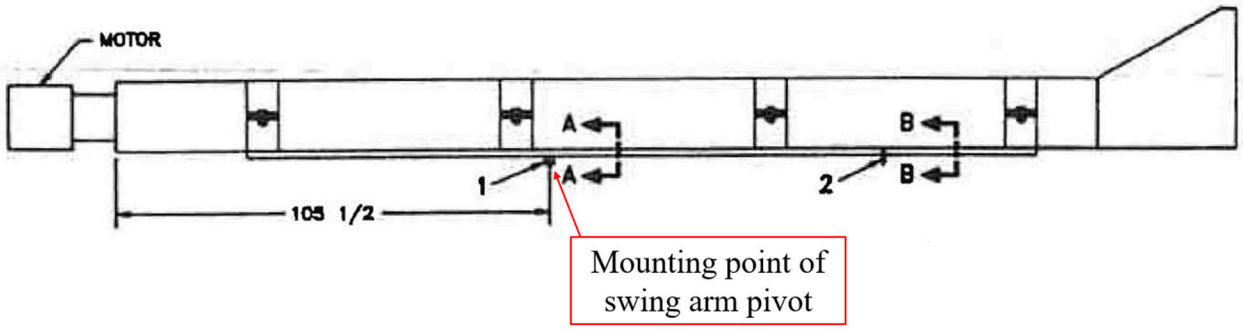


PHOTO NO. 4146

Install fill auger assembly (arrow 1) on to the swing arm pivot (arrow 2). The Kasco auger has pivot bracket in place. The Reminger auger two support tab (arrow 3) must be welded onto bottom channel. See (page 39) for proper location.

Ex. PK-1007 at 37 (highlighted, annotated).

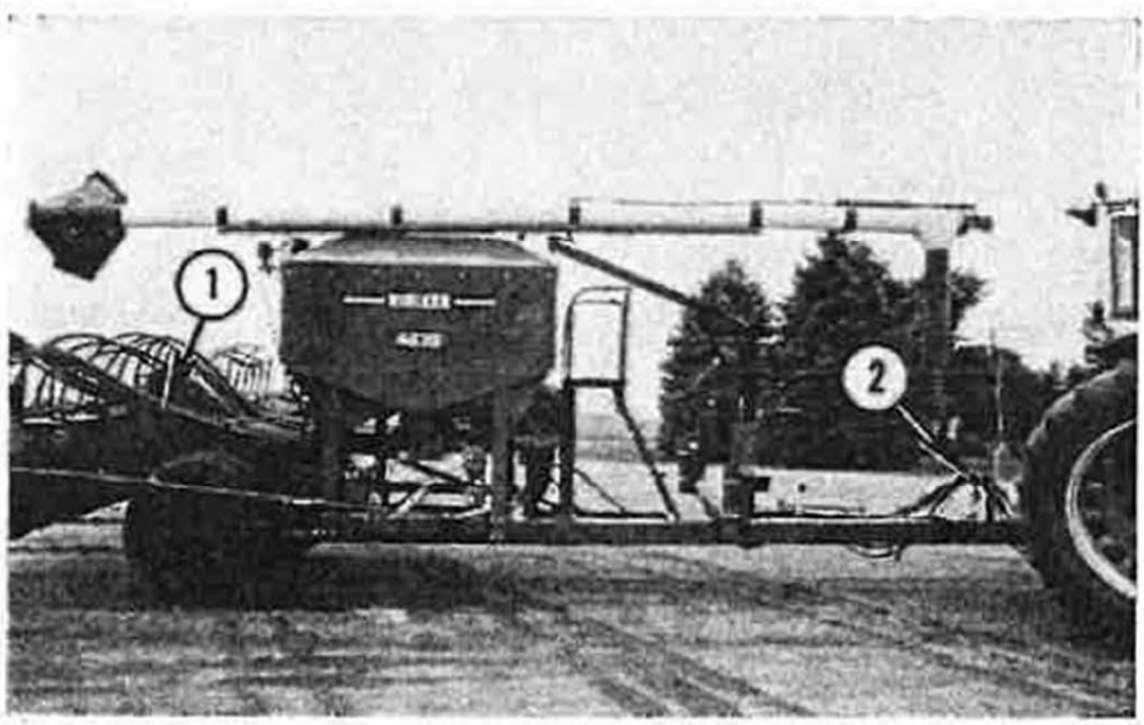
As shown below, the swing arm pivot is positioned between the first and second conveyor ends:



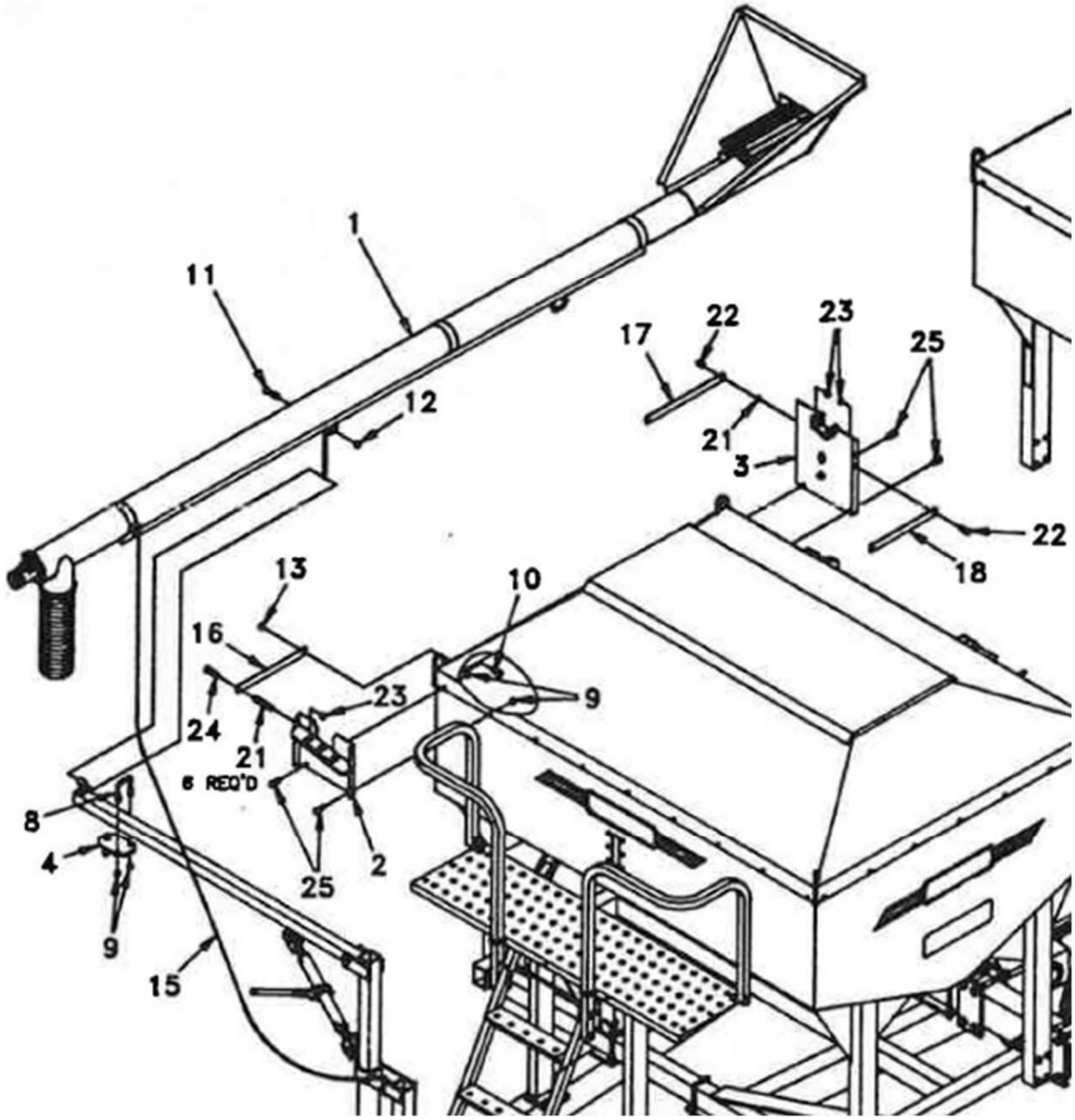
Id. at 39 (annotated).

(h) [10.7] said conveyor being rotatable about a third axis of rotation proximate said second end of said support arm that is not parallel to said conveyor longitudinal axis, and

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 138–140. Hiniker Manual discloses that the auger conveyor can rotate about the swing arm pivot between (1) a position in which the auger conveyor is in approximately the same plane as the support arm, *see* Ex. PK-1007 at 30, and (2) a position in which the auger conveyor is perpendicular to the support arm, *see id.* at 38:

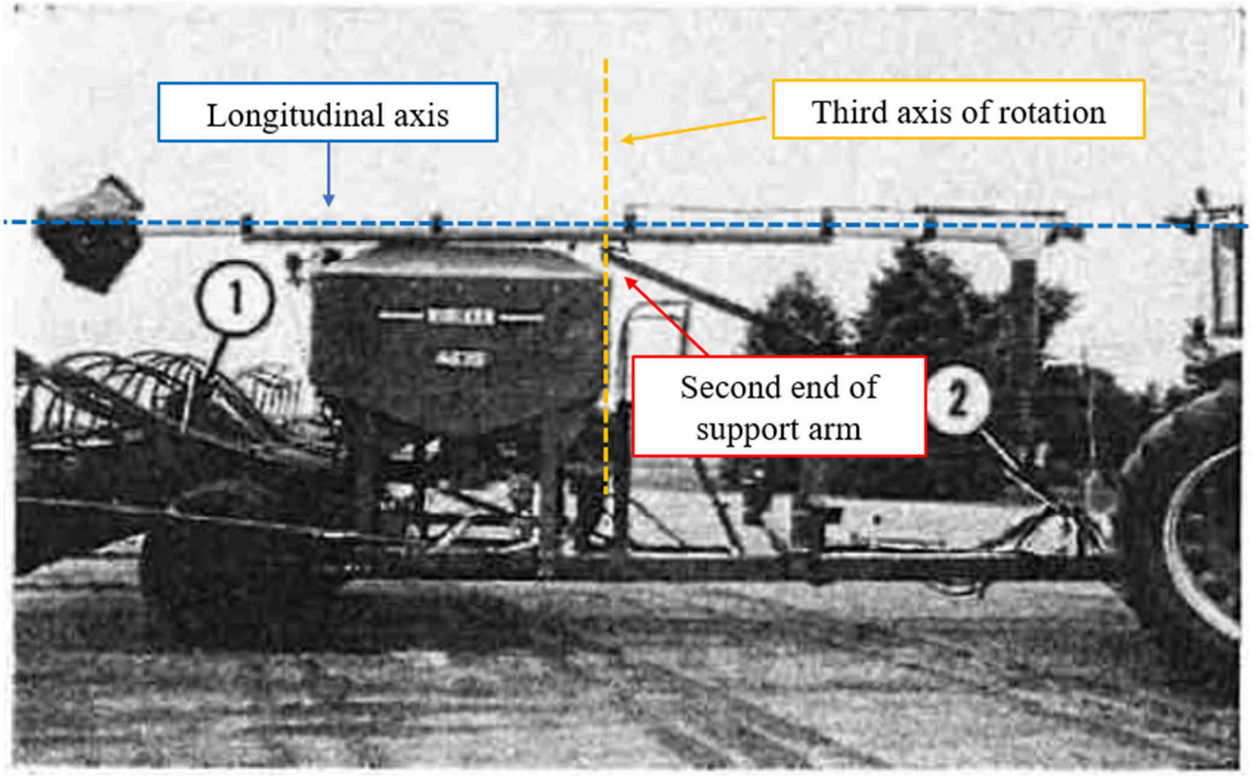


Id. at 30 (showing auger in approximately same plane as support arm); *see also id.* at 37 (same).



Id. at 38 (excerpted) (showing auger perpendicular to support arm). Thus, the auger conveyor of the Hiniker-Furrer combination is rotatable about a third axis of rotation.

This third axis of rotation is, moreover, proximate the second end of the support arm and not parallel to the conveyor longitudinal axis:



Id. at 30 (annotated).

(i) [10.8] said conveyor being rotatable in relation to said second end of said support arm about said third axis of rotation between an unloading position wherein said conveyor hopper is disposed below said main hopper discharge to receive agricultural product from said main hopper and a loading position wherein said conveyor discharge is disposed above said intake opening of said main hopper to dispense agricultural product into said main hopper.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶¶ 141–149.

Loading Position: To load the main hopper, Hiniker Manual instructs the user to "lift [the] auger out of [the] rear cradle and maneuver [it] to the desired position," "[w]ith the hopper end of [the] auger on the ground" and the discharge end "lower[ed] . . . to the correct height for filling":

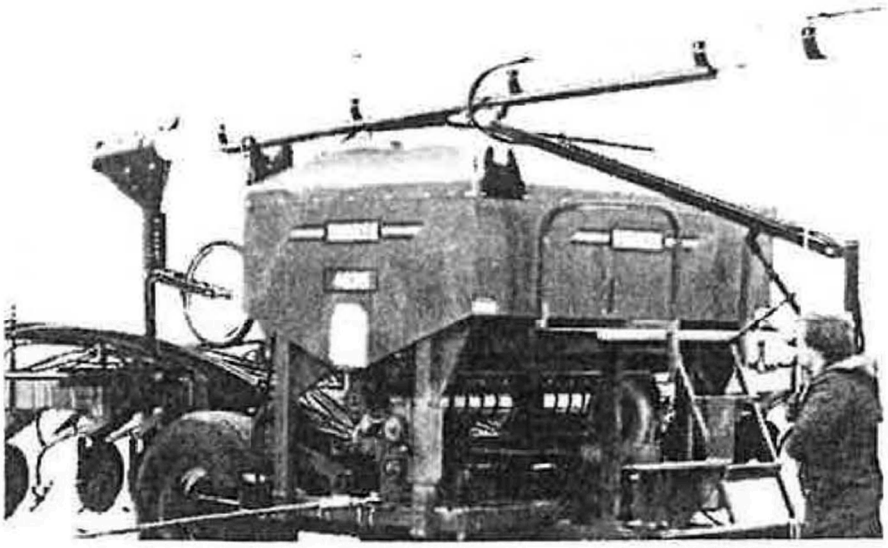


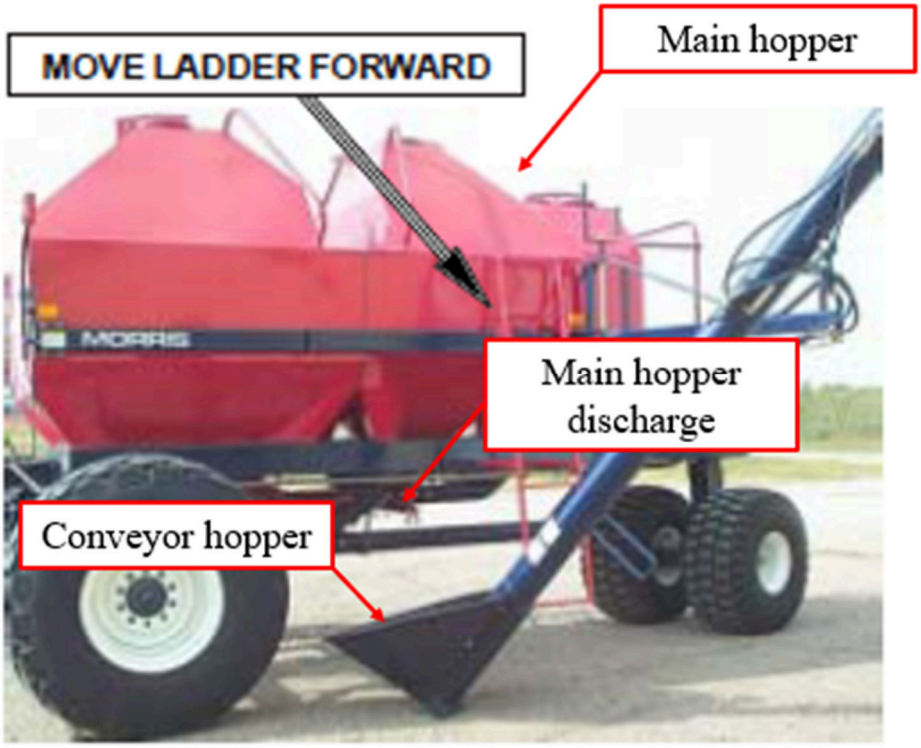
PHOTO NO. 4081

4. Pull rope to lift auger out of rear cradle and maneuver to the desired position. With the hopper end of auger on the ground, lower the auger to the correct height for filling, by using the ratchet. Reverse procedure for transport. Make sure the auger is secured both in the front and rear saddle before transport.

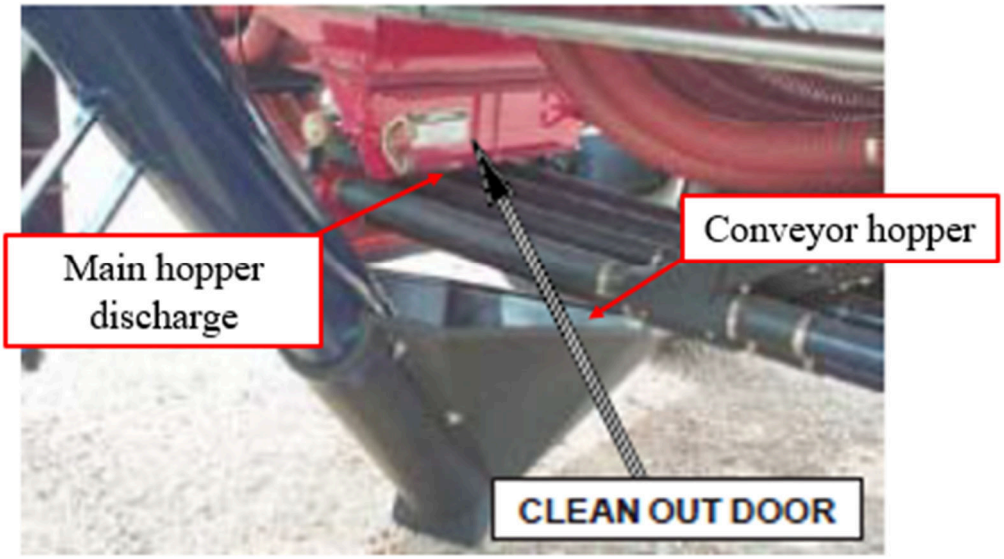
Ex. PK-1007 at 41 (highlighted); *see also id.* at 36 (noting the auger can "rotate easily for use in the field"); Ex. PK-1001 at Fig. 3, 3:32–33 ('123 patent similarly disclosing that the conveyor hopper sits on the ground when the conveyor is in the "loading position"). Thus, the auger conveyor of the Hiniker-Furrer combination is rotatable in relation to the second end of the support arm about the third axis of rotation to a loading position wherein the conveyor discharge is disposed above the main hopper to dispense agricultural product (seed or grain) into the main hopper. Ex. PK-1003 ¶ 143.

Unloading Position: Hiniker Webpage discloses that "[t]he auger may be used to both fill ***and empty*** the seed hopper when changing seed varieties." Ex. PK-1008. A skilled artisan would have readily understood that to empty the seed hopper using the auger conveyor, as Hiniker Webpage instructs, the auger conveyor must be rotated about the third axis of rotation to a position in which the auger conveyor is disposed below the main hopper discharge and the seed tube moved from the discharge. Ex. PK-1003 ¶ 144. The Hiniker-Furrer combination thus discloses an unloading position wherein the conveyor hopper is disposed below the main hopper discharge to receive agricultural product (seed or grain) from the main hopper.

In the alternative, if Patent Owner contends that Hiniker Website does not disclose the unloading position, the unloading position would have been obvious in view of Morris. *Id.* ¶ 145. As explained in § V.A above, Morris discloses a seed tender with an auger conveyor mounted to a support arm that allows the auger conveyor to rotate between a loading position and, as shown below, an unloading position:



Ex. PK-1004 at 5-27 (red annotations added).



Id. (red annotations added); *see also id.* (instructing operator to "[p]osition auger under the tank to be emptied").

In seeking to understand Hiniker Webpage's disclosure that the auger conveyor can "empty the seed hopper," Ex. PK-1008, a skilled artisan would have looked to Morris for guidance. Ex. PK-1003 ¶ 146. As shown above, Morris's seed tender resembles that of the Hiniker references. Further, the Hiniker references and Morris are in the same technical field (seed or grain conveyor systems) and address the same problem (improved transport of seed or grain using a conveyor). *Id.* (citing Ex. PK-1007 at 36 ("The fill auger support . . . allows the fill auger to rotate easily for use in the field or for transporting."); *id.* at 40 ("The Fill Auger is designed for one-man operation."); Ex. PK-1004 at 4-4 ("The optional hydraulic auger is designed to make loading and unloading product from the Air Cart tank very simple and easy.")). Both Morris and Hiniker Webpage, moreover, disclose using their respective auger conveyors for loading and unloading the main hopper. Ex. PK-1008; Ex. PK-1004 at 5-25, 5-27. Thus, a skilled artisan would have turned to Morris for guidance in implementing the Hiniker-Furrer combination.

After consulting Morris, a skilled artisan would have readily realized that the Hiniker-Furrer combination's "swing arm pivot" already allows the auger conveyor to rotate about the third axis of rotation from a loading position to an unloading position without any modifications. Ex. PK-1003 ¶ 147. That readiness to accommodate the unloading position makes sense given that Hiniker Webpage states "[t]he auger may be used to both fill and empty the seed hopper" and does not

mention the need for any modifications to achieve that result. Ex. PK-1008. Accordingly, if Patent Owner contends that Hiniker Website does not disclose the unloading position, the unloading position would have been obvious in view of Morris. Ex. PK-1003 ¶¶ 147–149.

For the above reasons, the Board should hold that claim 10 would have been obvious over the combination of the Hiniker references, Furrer, and (if necessary) Morris.

7. Dependent Claim 11

The seed or grain tender of claim 10, wherein said first axis of rotation extends through said main hopper discharge.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 151. As shown in §§ V.B.1 and V.C.6(d) above, the first axis of rotation extends through the main hopper discharge.

8. Dependent Claim 12

The seed or grain tender of claim 10, wherein said second axis of rotation extends through said first end of said support arm.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 152. As shown in § V.C.6(e) above, the second axis of rotation extends through the first end of the support arm.

9. Dependent Claim 13

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 153. As shown in § V.C.6(h) above, the third axis of rotation extends through the conveyor.

10. Dependent Claim 14

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said second end of said support arm.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 154. As shown in § V.C.6(h) above, the third axis of rotation extends through the second end of the support arm.

11. Dependent Claim 15

The seed or grain tender of claim 10, wherein said third axis of rotation extends through said conveyor and said second end of said support arm.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 155. As shown in § V.C.6(h) above, the third axis of rotation extends through the conveyor and the second end of the support arm.

12. Dependent Claim 16

The seed or grain tender of claim 10, wherein said third axis of rotation is oriented at an angle having a vertical component.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 156. As shown in § V.C.6(h), the third axis of rotation is vertical (oriented at an angle having a vertical component).

13. Dependent Claim 17

The seed or grain tender of claim 16, wherein said first axis of rotation is vertical.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 157. As shown in § V.C.6(d) above, the first axis of rotation is vertical.

14. Dependent Claim 18

The seed or grain tender of claim 17, wherein said second axis of rotation is horizontal.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 158. As shown in § V.C.6(e) above, the second axis of rotation is horizontal.

15. Dependent Claim 19

The seed or grain tender of claim 10, wherein said second end of said support arm is coupled with said conveyor at an approximate center of gravity of said conveyor.

The Hiniker-Furrer combination discloses this limitation. Ex. PK-1003 ¶ 159. As shown in § V.C.6(g) above, the second end of the support arm is coupled with the conveyor at an approximate center of gravity of the conveyor. Hiniker Manual, moreover, discloses that "[t]he auger must be balanced in the support assembly with slightly more weight on the hopper end," which confirms that it is coupled at its approximate center of gravity with the support arm. Ex. PK-1007 at 40; *see also id.* at 39 (noting that "if auger is not balanced properly, the clamps can be loosened and the auger moved until it is balanced").

For the above reasons, the Board should hold that claims 10–19 would have

been obvious over the combination of the Hiniker references, Furrer, and (if necessary) Morris.

D. Ground 4: Hiniker Manual in View of Hiniker Webpage, Furrer, and Baskerville

Claims 20 and 21 would have been obvious over the Hiniker-Furrer combination of Ground 3 in view of Baskerville. As explained below, Baskerville discloses the additional limitations in these claims, and it would have been obvious to modify the Hiniker-Furrer combination to incorporate Baskerville's teachings. The Board should therefore cancel claims 20 and 21.

1. Dependent Claim 20

The seed or grain tender of claim 10, further comprising a hydraulic piston extending at an acute angle relative to a horizontal plane to connect with a portion of said support arm spaced from said second axis of rotation.

It would have been obvious to modify the Hiniker-Furrer combination in view of Baskerville to include the claimed hydraulic piston. Ex. PK-1003 ¶¶ 161–166.

As explained in § V.A.13 above, Baskerville discloses a hydraulic piston that extends at an acute angle (< 90°) relative to a horizontal plane and connects with a portion of the support arm spaced from the second axis of rotation.

A skilled artisan would have been motivated to replace the Hiniker "ratchet jack assembly" with a hydraulic piston like Baskerville's. *Id.* ¶ 163. ***First***, a skilled

artisan would have looked to the Hiniker references, Furrer, and Baskerville together because they are in the same technical field (seed or grain conveyor systems) and address the same problem (improved transport of seed or grain). *Id.* ¶ 164 (citing Ex. PK-1007 at 36 ("The fill auger support . . . allows the fill auger to rotate easily for use in the field or for transporting."); *id.* at 40 ("The Fill Auger is designed for one-man operation."); Ex. PK-1006 at 1:44–49 ("It is thus desirable to have a seed tender which is not only portable and adaptable to the various situations found in different farms and areas, but which is capable of handling large volumes and considerable weight of seed, and which is also capable of carrying seed containers of different volumes and/or configurations, for maximum flexibility."); Ex. PK-1005 at 1:54–56 ("[I]t is clear that a need exists for an improved bulk seed cart with a self contained conveyor which can be used both for loading and for unloading the seed cart.")). ***Second***, Baskerville teaches that its hydraulic piston helps lift and lower the conveyor, "dampen[s] any dramatic shifts in the position of the [support arm]," and allows the operator to "remotely control the lifting and lowering of the [support arm]," which makes the machine "much safer and more reliable." Ex. PK-1005 at 5:25–52. Because Baskerville touts the benefits of its hydraulic piston, a skilled artisan would have been motivated to incorporate that piston into the Hiniker-Furrer combination.

A skilled artisan also would have reasonably expected success in incorporating a hydraulic piston like Baskerville's into the Hiniker-Furrer combination. Ex. PK-1003 ¶ 166. Hydraulic pistons were well known by the '123 patent's earliest possible effective filing date. *Id.* Moreover, adding a hydraulic piston to the Hiniker-Furrer combination would have been routine, requiring merely the addition of a known component according to its known function (actuating and dampening) to achieve a predictable result (the ability to lift and lower the conveyor remotely and dampen movement of the support arm). *Id.* Therefore, a skilled artisan would have reasonably expected success with this modification.

2. Dependent Claim 21

The seed or grain tender of claim 10, further comprising a stand coupled with said first end of said conveyor and movable between a stowed position allowing said conveyor hopper to be positioned below said main hopper discharge when said conveyor is in said unloading position and an extended position supporting said conveyor hopper above the ground when said conveyor is in said loading position.

It would have been obvious to modify the Hiniker-Furrer combination in view of Baskerville to include the claimed stand. Ex. PK-1003 ¶¶ 167–169. As explained in § V.A.14 above, Baskerville discloses the claimed stand. A skilled artisan would have been motivated to include a stand like Baskerville's in the Hiniker-Furrer combination for at least two reasons. *Id.* ¶ 168. First, providing a stand reduces the vertical distance between the conveyor hopper and the outlet of the seed or grain source (e.g., another seed or grain tender, a semi-trailer, or a railroad car),

thus reducing spillage. *Id.* Second, a stand provides stability and lifts the conveyor off the ground, which helps keep it clean from dirt, mud, manure, and other contaminants that could interfere with and degrade the exposed moving parts of the Hiniker conveyor. *Id.* A skilled artisan would have readily recognized these benefits and thus been motivated to include a stand like Baskerville's in the Hiniker-Furrer combination. *Id.* If Patent Owner contends that the stand must remain coupled with the first end of the conveyor when in the stowed position, it would have been obvious to modify the stand in this manner, as discussed in § V.A.14 above.

VI. THE BOARD SHOULD REACH THE PETITION'S MERITS

A. The *General Plastic* Factors Do Not Apply

The *General Plastic* factors for determining whether to discretionarily deny an IPR petition are inapplicable here. *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357 through -01361, Paper 19 (PTAB Sept. 6, 2017). The animating concern of *General Plastic* was "follow-on petitions." *Id.* at 8. Indeed, *General Plastic* factors 2–5 are relevant only for follow-on petitions. *See id.* at 9. Here, no one has petitioned for IPR of the '123 patent before. Accordingly, the *General Plastic* factors do not support discretionary denial of this petition.

B. The *Fintiv* Factors Weigh Against Discretionary Denial

Under "binding agency guidance," "***the PTAB will not discretionarily deny institution*** of an IPR or PGR in view of parallel district court litigation where [as here] a petitioner stipulates not to pursue in a parallel district court proceeding the

same grounds as in the petition or any grounds that could have reasonably been raised in the petition." Ex. PK-1016 at 7 (citation omitted); Ex. PK-1018. Accordingly, the Board should not discretionarily deny institution under *Fintiv*.

C. The *Becton, Dickinson* Factors Weigh Against Discretionary Denial

The Board may deny institution when "the same or substantially the same prior art or arguments previously were presented to the Office." 35 U.S.C. § 325(d). The Board considers the *Becton, Dickinson* factors in deciding whether to deny institution under § 325(d). *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential in relevant part).

These factors weigh against denying institution. None of this petition's grounds relies on prior-art combinations evaluated during prosecution of the '123 patent. Neither Morris nor Hiniker Webpage was before the examiner. *See* Ex. PK-1002. Although an earlier version of Hiniker Manual was before the examiner, the examiner did not substantively evaluate, or base any rejections on, this reference during prosecution of the '123 patent. *See id.*

Although the examiner issued a non-final rejection based on Furrer and Baskerville, he clearly erred in allowing the claims over that rejection. The examiner rejected application claims 39–44 as anticipated by Furrer; application claims 45 and 46 as obvious over Furrer; and application claim 48 as obvious over Furrer and

Baskerville. *Id.* at 117–20. In response, the applicant amended claim 39 by merely adding the "hydraulic piston" limitation of issued claim 20. *Id.* at 142. Not realizing that Baskerville discloses such a piston (*see* § V.A.13, *supra*), the examiner then allowed the claims. *Id.* at 408. Accordingly, the examiner erred in his evaluation of the Furrer-Baskerville combination.

In any event, Petitioner does not rely on the combination of Furrer and Baskerville. Rather, Petitioner relies on Furrer and Baskerville only as secondary references. Grounds 2 and 3 cite Furrer for its disclosure of limitations 10.3, 10.5 (if necessary), and 11. The examiner, by contrast, relied on Furrer as an anticipatory reference and primary reference. *Id.* at 117–20. Although Petitioner relies on Baskerville in the same manner as the examiner did (as disclosing the "stand" limitation), this is consistent with the examiner's finding during prosecution, which he never retracted. *Id.* at 120. Thus, "there is no evidence that any of the combinations asserted in the [p]etition were previously considered by the Office at all, let alone for the challenged claims." *Bowtech Inc. v. MCP IP, LLC*, IPR2019-00383, Paper 14 at 4–5 (PTAB Aug. 6, 2019) (declining to deny institution under § 325(d)); *see also Edwards Lifesciences Corp. v. Boston Sci. SciMed, Inc.*, IPR2017-01295, Paper 9 at 25–27 (PTAB Oct. 25, 2017) (declining to deny institution under § 325(d) where examiner did not consider whether the claims were patentable over the proposed combinations in the petition).

Additionally, this petition does not rely on any prior-art combinations evaluated during prosecution of the parent '940 and '047 patents. *See* Exs. PK-1013, PK-1014. Neither Morris, Hiniker Manual, nor Hiniker Webpage was before the examiner during prosecution of those patents. *See* Exs. PK-1013, PK-1014. Although Baskerville and Furrer were before the examiner during prosecution of the '940 patent, the examiner did not substantively evaluate, or base any rejections on, these references. *See* Ex. PK-1013. As for the '047 patent, although the examiner issued rejections based on Furrer and Baskerville, he relied on different combinations of these references to address claim limitations that are absent from the claims challenged here. *See* Ex. PK-1014 at 68–71 (relying on Furrer as a primary reference for claims requiring, e.g., "a frame," "leg members," "a base," "sloped, inwardly facing walls," and "a conveyor coupling"); *id.* at 71–72 (relying on Baskerville as disclosing a "mechanism 36 for detachably coupling the first end of the conveyor with the first end of the support arm"); *id.* at 217–18 (relying on Baskerville as disclosing "a belt driven tube conveyor"); *id.* at 190–93 (relying on Baskerville as anticipating claims requiring, e.g., "a frame," "leg members," "a base," "a latch mechanism for detachably coupling said first end of said conveyor with said first end of said support arm," and "a locking mechanism"). Therefore, "there is no evidence that any of the combinations asserted in the [p]etition were previously

considered by the Office at all, let alone for the challenged claims." *Bowtech*, Paper 14 at 4–5; *see also Edwards Lifesciences*, Paper 9 at 25–27.

Baskerville was also before the examiner in the *inter partes* reexamination of the parent '047 patent, which Petitioner's predecessor initiated, but none of the proposed rejections applied the combinations of references asserted here, let alone for the challenged claims. *See Bowtech*, Paper 14 at 4–6; *Edwards Lifesciences*, Paper 9 at 25–27; Ex. PK-1015 (relying on two publications from Great Plains Manufacturing as primary references). Moreover, unlike the request for *inter partes* reexamination, which the examiner faulted for not explaining why or how a skilled artisan would have modified the primary references in view of Baskerville, Ex. PK-1015 at 56–58, this petition explains for each ground why and how a skilled artisan would have modified the primary reference in view of the secondary reference. *See, e.g.*, §§ V.A.3, V.B.2, V.C.4, V.C.5, V.D.1, V.D.2, *supra*; *Netflix Inc. v. Divx, LLC*, No. IPR2020-00646, Paper 12 at 54–56 (PTAB Sept. 15, 2020) (declining to deny institution under § 325(d) where "[t]he examiner . . . never considered the motivation to combine those references presented in the Petition"). Accordingly, the Board should not discretionarily deny institution.

VII. PAYMENT OF FEES – 37 C.F.R. § 42.103

Petitioner authorizes the Office to charge Deposit Account No. 06-1050 for any necessary fees.

VIII. CONCLUSION

For the above reasons, the Board should institute IPR on the grounds presented.

IX. MANDATORY NOTICES UNDER 37 C.F.R § 42.8(a)(1)

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

Petitioner, Par-Kan Company, LLC, and its parent corporation, RP Industries, Inc., are the real parties-in-interest.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

Petitioner is not aware of any disclaimers, reexamination certificates or petitions for inter partes review for the '123 Patent. The '123 patent is the subject of a number of civil actions including: *Unverferth Mfg. Co., Inc. v. Par-Kan Co., LLC*, 3-23-cv-00653 (N.D. Ind.), filed July 11, 2023; *Unverferth Mfg. Co., Inc. v. Meridian Mfg., Inc*, 5-19-cv-04005 (N.D. Iowa), filed January 23, 2019; and *Unverferth Mfg. Co., Inc. v. Norwood Sales Inc.*, 3-18-cv-00053 (D.N.D.), filed March 12, 2018.

C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

Par-Kan provides the following designation of counsel.

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D. Service Information

Please address all correspondence and service to the address listed above. Petitioner consents to electronic service by email at IPR56436-0003IP1@fr.com (referencing No. 56436-0003IP1).

Respectfully submitted,

Dated September 11, 2024

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter partes* Review totals 13,949 words, which is less than the 14,000 allowed under 37 CFR § 42.24.

Dated September 11, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned certifies that on September 11, 2024, a complete and entire copy of this Petition for *Inter partes* Review, Power of Attorney, and all supporting exhibits were provided via Federal Express, to the Patent Owner by serving the correspondence address of record as follows:

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