UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

HEARTLAND RECREATIONAL VEHICLES, LLC,

Plaintiff,

v.

GULF STREAM COACH, INC.,

Defendant.

Case No. 3:15-cv-131

COMPLAINT

(Jury Trial Demanded)

Plaintiff, Heartland Recreational Vehicles, LLC ("Plaintiff"), for its Complaint against Gulf Stream Coach, Inc. ("Defendant"), states and alleges as follows:

NATURE OF ACTION

1. This is an action for patent infringement under 35 U.S.C. § 271, *et seq.*, by Plaintiff against Defendant for infringement of the United States Patent Nos. 7,278,650 ("patent '650"); 7,878,545 ("patent '545"); and 8,162,352 ("patent '352"). True and correct copies of patents '650, '545, and '352 are attached hereto as **Exhibits 1, 2, and 3.**

PARTIES

2. Plaintiff is an Indiana limited liability company, with a principal place of business at 1001 All Pro Drive, Elkhart, Indiana 46514, and is a wholly owned subsidiary of Thor Industries, Inc. Plaintiff owns all rights, title and interest to patents '650, '545, and '352.

3. Upon information and belief, Defendant is an Indiana corporation with a principal place of business at 503 South Oakland Ave., Nappanee, Indiana 46650.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction over Plaintiff's patent infringement claim under 28 U.S.C. § 1338(a), in that the claim arises under the Acts of Congress relating to patents, including but not limited to 35 U.S.C. § 271, *et seq.*
5. Defendant resides in this judicial district and is subject to personal jurisdiction in this judicial district. Defendant has a regular and established place of business in this judicial district.
6. Defendant transacts business in this judicial district and has committed acts of patent infringement, giving rise to the present claim by Plaintiff, as described further herein, within this judicial district and/or outside Indiana that have caused injury in this judicial district.
7. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b).

BACKGROUND

8. On October 9, 2007, the United States Patent and Trademark Office ("USPTO") duly and legally issued patent '650 entitled "Travel Trailer Having Improved Turning Radius."
9. On February 1, 2011, the United States Patent and Trademark Office ("USPTO") duly and legally issued patent '545 entitled "Travel Trailer Having Improved Turning Radius."

10. On April 24, 2012, the United States Patent and Trademark Office ("USPTO") duly and legally issued patent '352 entitled "Travel Trailer Having Improved Turning Radius."

11. Plaintiff has owned patents '650, '545, and '352 (collectively, "Plaintiff's Patents") since the date each was issued.

12. In general, Plaintiff's Patents involve designs and technology relating to turning radius issues typically found in fifth wheel travel trailers, particularly when being towed by short-bed pick-up trucks, and Plaintiff's Patents help avoid corner collisions between travel trailers and short-bed pick-up trucks, by changing the shape of the fifth wheel cap and/or chassis, as compared with prior caps and chassis.

13. Plaintiff is a manufacturer of recreational vehicles ("RVs"), including a type of travel trailer referred to as fifth wheel travel trailers. Many of Plaintiff's fifth wheel travel trailers incorporate and use one or more of the inventions of Plaintiff's Patents. Those fifth wheel travel trailers are referred to herein as the "Patented Products." For several years, Plaintiff has advertised the advantages of the patent features on its Patented Products, as shown in **Exhibit 4** hereto.

14. Plaintiff sells its RVs, including the Patented Products, primarily through independently owned dealers, distributors, and other RV resellers. Plaintiff has entered into contracts with these resellers whereby Plaintiff provides the Patented Products along with collateral products to the resellers. The resellers typically sell the Patented Products and the collateral products to "end users" or consumers of those products. Those contracts with resellers, typically referred to in the trade as "dealership contracts" (regardless of whether or not the reseller meets the usual legal definition of a "dealership"), usually have a duration in excess of one year. The collateral products sold along with the Patented Products include other

types of RVs, as well as certain products, including RV accessories, typically used with RVs.

15. A substantial number of RV dealers and resellers prefer to offer "complete product lines" or a full range of RV products to their customers, and will not enter into dealership contracts with RV manufacturers who cannot provide them with a full range of RV products.

16. Towable RV products, such as the Patented Products, are typically used by being temporarily attached to a towing vehicle. There are two primary types of towing vehicles for RVs, short bed pick-up trucks and long bed pick-up trucks. If a type of RV cannot be safely, easily, or reliably used with a short bed pick-up truck, the market demand for that type of RV is substantially less than if that type of RV could be used with both types of pick-up trucks.

17. A substantial number of RV dealers and resellers prefer to offer to their customers RV products which incorporate innovative designs and new functional advantages, and will not enter into dealership contracts with RV manufacturers who cannot provide them with RV products having innovative designs and new functional advantages.

DEFENDANT'S INFRINGING ACTIVITIES

18. Defendant is a manufacturer of recreational vehicles ("RVs"), including a type of travel trailer referred to as fifth wheel travel trailers. Defendant manufactured and sold certain of its fifth wheel travel trailers under the model names Canyon Trail, Sedona, and Ridgeline. These models are referred to herein collectively as "Defendant's Fifth Wheel

Product Lines." Copies of representative advertisements by Defendant for these products are attached hereto as **Exhibits 5, 6, and 7.**

19. Defendant has marketed Defendant's Fifth Wheel Product Lines in direct competition with the Patented Products. Defendant competes with Plaintiff in obtaining dealer contracts with RV resellers. Defendant has used Defendant's Fifth Wheel Product Lines to assist in competing with Plaintiff in obtaining dealer contracts with RV resellers. As a result of obtaining dealer contracts with RV resellers, Defendant has been able to sell Defendant's Fifth Wheel Product Lines as well as collateral products, such as other types of RVs, to the RV resellers.

20. Defendant has advertised that its Ridgeline fifth wheel travel trailers have a "front cap designed for maximum turning radius." Defendant has represented to RV resellers and to potential customers that it is was the source of "design innovation" for the "cut outs" in the Ridgeline front cap which permit "maximum turning radius." In doing this, Defendant intended to lead RV resellers and potential consumers to believe that Defendant originated the front cap cut out designs which allow increased turning radius of fifth wheel travel trailers.

21. Defendant has advertised the Canyon Trail and Sedona fifth wheel travel trailers as having an "E-Z Turn Fiberglass Front Cap" for the same purpose as the front cap cut outs referred to in connection with advertisements for the Ridgeline fifth wheel travel trailers. On the actual Canyon Trail and Sedona fifth wheel trailers, Defendant has marked the cut out portions of its front caps which increase the turning radius with bright yellow and black triangle decals having the designation "E-Z Turn."

22. Defendant's Fifth Wheel Product Lines have been offered for sale and sold by RV resellers to end users and consumers of those products. Those consumers have used Defendant's Fifth Wheel Product Lines.

23. Defendant has made, used, sold and/or offered for sale in the United States products that infringe at least Claim 1 of patent '650, including but not limited to the Canyon Trail, Sedona and Ridgeline fifth wheel product lines.

24. Defendant has made, used, sold and/or offered for sale in the United States products that infringe at least Claim 1 of patent '545, including but not limited to Defendant's Fifth Wheel Product Lines.

25. Defendant has made, used, sold and/or offered for sale in the United States products that infringe at least Claims 15 and 34 of patent '352, including but not limited to Defendant's Fifth Wheel Product Lines.

26. More specifically, the following illustration is a portion of an advertisement made by Defendant to market its Ridgeline fifth wheel travel trailers:

27. Claim 1 of patent ‘545 defines the following invention:

A fifth wheel travel trailer for use with a pickup truck as a towing vehicle, the pickup truck having a bed with a mating hitch and a cab, the travel trailer including:

a chassis having a front end;

a hitch attached to the chassis adjacent the front end and configured to engage the mating hitch at a pivot location; and

a compartment having an upper deck and a pair of outer wall recessed portions located adjacent a front of the upper deck entirely rearward of the pivot location to provide clearance for a portion of the cab so as to permit the pickup truck to make a tighter turn without the cab striking the travel trailer.

28. The Ridgeline product shown in the illustration of Paragraph 26 is a fifth wheel travel trailer for use with a pickup truck as a towing vehicle. That pickup truck has a bed with a mating hitch and a cab.

29. The Ridgeline product shown in the illustration of Paragraph 26 is a travel trailer including a chassis having a front end. The location of the front end is adjacent where the individual shown in the illustration is standing.

30. The Ridgeline product shown in the illustration of Paragraph 26 has a hitch attached to the chassis adjacent the front end. The location of that hitch is immediately behind the shoulders of the individual shown in the illustration. That hitch is configured to engage the mating hitch of the pickup truck at a pivot location.

31. The Ridgeline product shown in the illustration of Paragraph 26 has a compartment having an upper deck. The location of the compartment is the interior of the travel trailer, as indicated by the door and windows shown in the illustration. The location of the upper

deck is immediately behind the front end and interiorly of the first window shown behind the individual in the illustration.

32. The Ridgeline product shown in the illustration of Paragraph 26 has a pair of outer wall recessed portions located adjacent a front of the upper deck entirely rearward of the pivot location to provide clearance for a portion of the cab so as to permit the pickup truck to make a tighter turn without the cab striking the travel trailer. The location of one of these recessed portions is indicated by the outstretched hand of the individual shown in the illustration.

33. Each limitation of Claim 1 of patent '545, is "literally present" in the Ridgeline product shown in the illustration of Paragraph 26, within the meaning of N.D. Ind. L.P.R. 3-1(ab)(3).

34. Plaintiff provided Defendant with specific illustrations and information detailing the basis for asserting infringement of Claim 1 of patent '650, Claim 1 of patent '545, and Claims 15 and 34 of patent ''352 in correspondence dated June 23, 2014. A true and correct copy of that correspondence is attached hereto as **Exhibit 8.** The bases of the allegations of infringement as to those claims, as set forth in that letter, are expressly incorporated herein by reference.

COUNT I: PATENT INFRINGEMENT

35. Plaintiff incorporates by reference paragraphs 1-34 as if fully set forth herein.

36. Since the date of their issue, Plaintiff has been and still is the owner of Plaintiff's Patents.

37. Defendant has had reason to know of its infringement of Plaintiff's Patents as Plaintiff has complied with the statutory requirement of giving notice to the public of Plaintiff's Patents

by affixing a label on the Patented Products, stating its turn radius technology is patented and/or patent pending, consistent with 35 U.S.C. § 287.

38. Further, Defendant was given actual written notice of infringement of Plaintiff's Patents by letter dated May 14, 2013. A true and correct copy of Plaintiff's letter dated May 14, 2013 is attached hereto as **Exhibit 9.**

39. Defendant has been and now is directly infringing, actively inducing third parties (namely, RV resellers and consumers of the accused products) to infringe and/or contributing to the infringement of Plaintiff's Patents by those third parties, by making, using, selling, offering for sale and/or importing in the United States products, including at least Defendant's Fifth Wheel Product Lines in violation of 35 U.S.C. § 271.

40. Defendant will continue to directly infringe, actively induce those third parties to infringe and/or contribute to the infringement of Plaintiff's Patents unless and until Defendant is enjoined by this Court.

41. On information and belief, Defendant has been and now is contributing to and inducing infringement of Plaintiff's Patents by offering to sell and selling products intended to practice one or more claims in each of Plaintiff's Patents, including but not limited to Defendant's Fifth Wheel Product Lines.

42. On information and belief, Defendant's Fifth Wheel Product Lines are intended to be made or adapted for use in practicing one or more claims of each of Plaintiff's Patents, and Defendant's Fifth Wheel Product Lines are not staple articles or commodities of commerce suitable for substantial non-infringing use.

43. On information and belief, Defendant is and has been aware, through actual knowledge or willful blindness, at least since written notice was given by Plaintiff to Defendant on May

14, 2013, that Defendant's Fifth Wheel Product Lines would be used to practice one or more claims of each of Plaintiff's Patents.

44. Defendants have been aware, at least since receiving Plaintiff's correspondence of Exhibit 8, that in order to avoid further liability to Plaintiff, it had the options of changing its products to be non-infringing, by using other structures or by ceasing to use the turning radius feature, or of obtaining a license under the specific royalty terms offered by Plaintiff. Defendants did not select any of those options, and instead continued to make, use, and sell the accused products and to falsely advertise itself as the source or origin of the innovative designs it had copied from Plaintiff.

45. Defendant's acts of infringement have caused and will continue to cause damage to Plaintiffs. But for Defendant's acts of infringement, Plaintiff's sales of the Patented Products would have increased, and Plaintiff's sales of collateral products which are normally sold along with or incident to the Patented Products would have increased. In addition, if Defendant had not committed these acts of infringement, the sales of Patented Products and such collateral products which did occur would have been less subject to price erosion and/or marketing "spiffs" and would have required less marketing expense associated therewith, resulting in greater profits to Plaintiff. Plaintiffs are entitled to recover from Defendant all of the damages sustained by Plaintiff and any additional remedy, in an amount to be determined at trial.

46. Defendant's acts of infringement will continue to cause Plaintiff irreparable harm in the future unless and until Defendant is enjoined from infringing Plaintiff's Patents.

47. On information and belief, Defendant has and will continue to willfully infringe Plaintiff's Patents.

DEMAND FOR JURY TRIAL

Plaintiff hereby demands a trial by jury of all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the following relief:

(A) a declaration that Defendant has infringed one or more claims of patents ‘650, ‘545, and ‘352, in violation of 35 U.S.C. § 271;

(B) equitable relief under 35 U.S.C § 283, including, but not limited to, permanently enjoining Defendant and its officers, agents, employees, assigns, representatives, privies, successors, and all those acting in concert or participating with Defendant from infringing, contributing to, and/or inducing infringement of patents ‘650, ‘545, and ‘352;

(C) an award of damages adequate to compensate Plaintiff for Defendant’s infringement of patents ‘650, ‘545, and ‘352, together with prejudgment interest and post-judgment interest under 35 U.S.C. § 284;

(D) a declaration or order finding that Defendant’s infringement is willful and/or an order increasing damages up to and including three times the amount found or assessed consistent with 35 U.S.C. § 284;

(E) a declaration that this case is “exceptional” under 35 U.S.C. § 285 and awarding Plaintiff reasonable attorney’s fees, costs, and expenses; and

(F) such other relief deemed just and proper.

Dated: March 25, 2015

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Attorneys for Plaintiff Heartland Recreational Vehicles, LLC

US007278650B2

(12) **United States Patent**
Brady et al.

(10) **Patent No.: US 7,278,650 B2**
(45) **Date of Patent: Oct. 9, 2007**

(54) **TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS**

(75) Inventors: **Brian R. Brady**, Elkhart, IN (US); **John Mitchell Rhymer**, Nappanee, IN (US); **Douglas Martin Lantz**, Middlebury, IN (US); **Timothy Arthur Hoffman**, Osceola, IN (US); **Scott James Tuttle**, Elkhart, IN (US)

(73) Assignee: **Heartland REcreational Vehicles, LLC**, Elkhart, IN (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 422 days.

(21) Appl. No.: **11/091,070**

(22) Filed: **Mar. 28, 2005**

(65) **Prior Publication Data**

US 2006/0038379 A2 Feb. 23, 2006

Related U.S. Application Data

(60) Provisional application No. 60/557,302, filed on Mar. 29, 2004.

(51) **Int. Cl.**
B62D 53/06 (2006.01)

(52) **U.S. Cl.** **280/441.2**; 280/783; 280/789; 296/168; 296/24.31; 296/182.1; 296/186.1

(58) **Field of Classification Search** 280/441.2, 280/783, 789; 296/168, 24.31, 182.1, 186.1
See application file for complete search history.

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Primary Examiner—George B. Nguyen
Assistant Examiner—Michael Stabley
(74) *Attorney, Agent, or Firm*—Baker & Daniels LLP

(57) **ABSTRACT**

A travel trailer configured to be coupled to and towed by a vehicle is provided. The travel trailer has a compartment that is attached to a chassis which includes a front end and a rear end. A plurality of wheels are attached to the chassis adjacent the rear end, and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess, directed inwardly toward the interior of the compartment, is located at each corner of the compartment. Cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

3 Claims, 11 Drawing Sheets

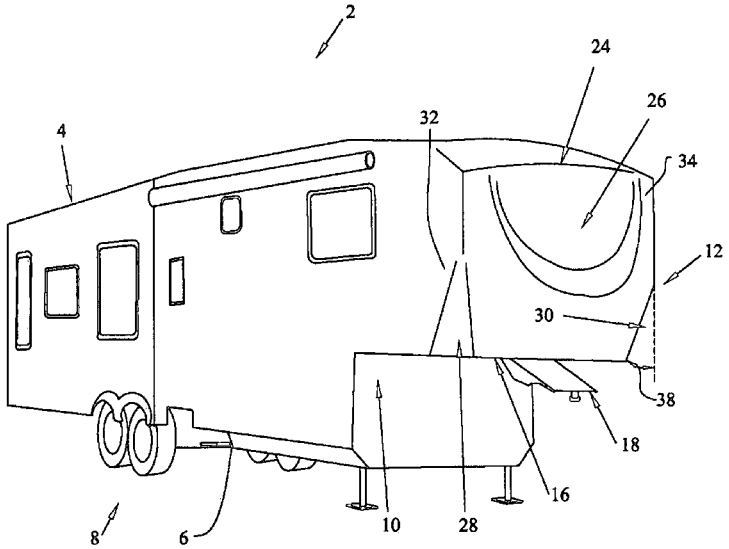


EXHIBIT 1

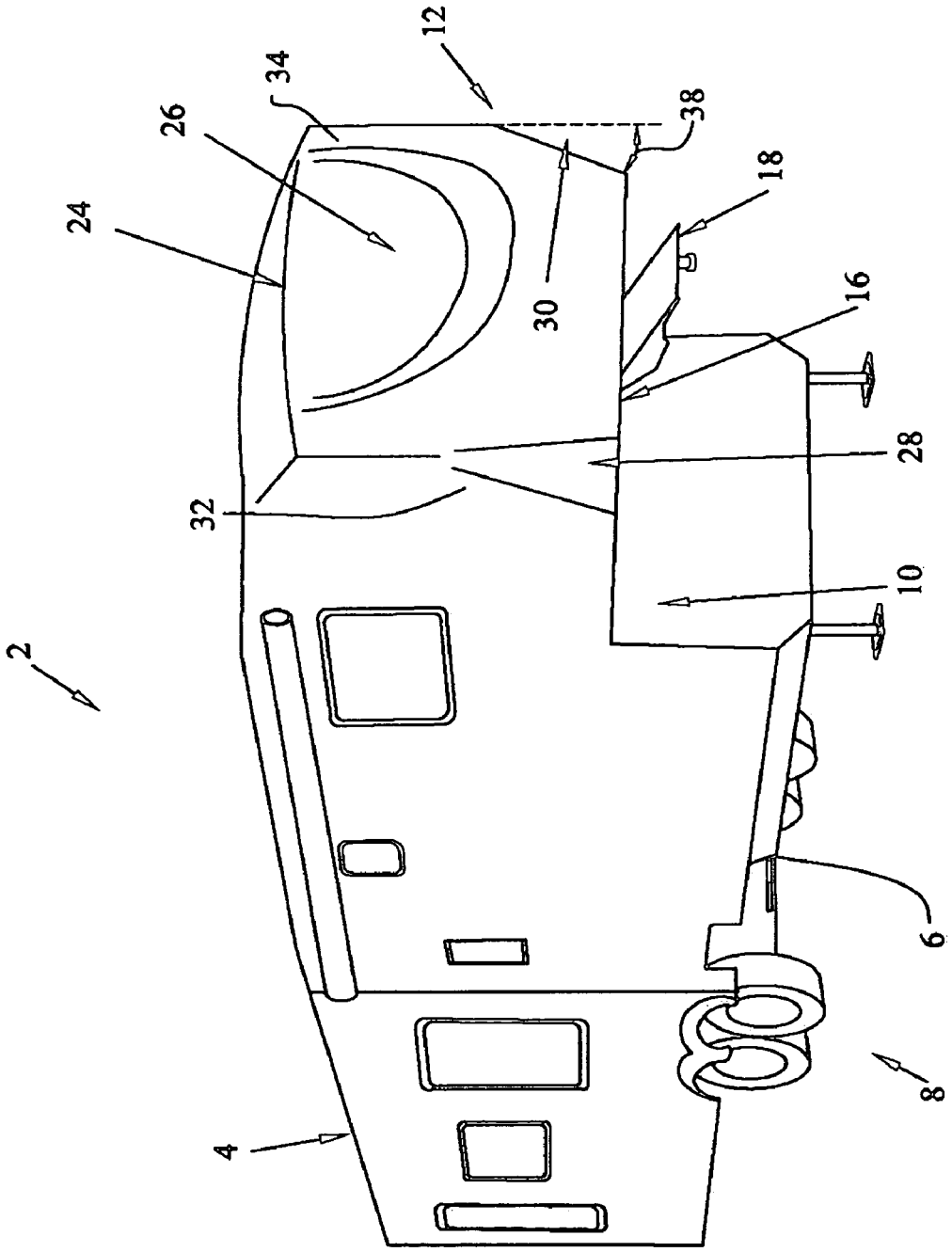


FIG. 1

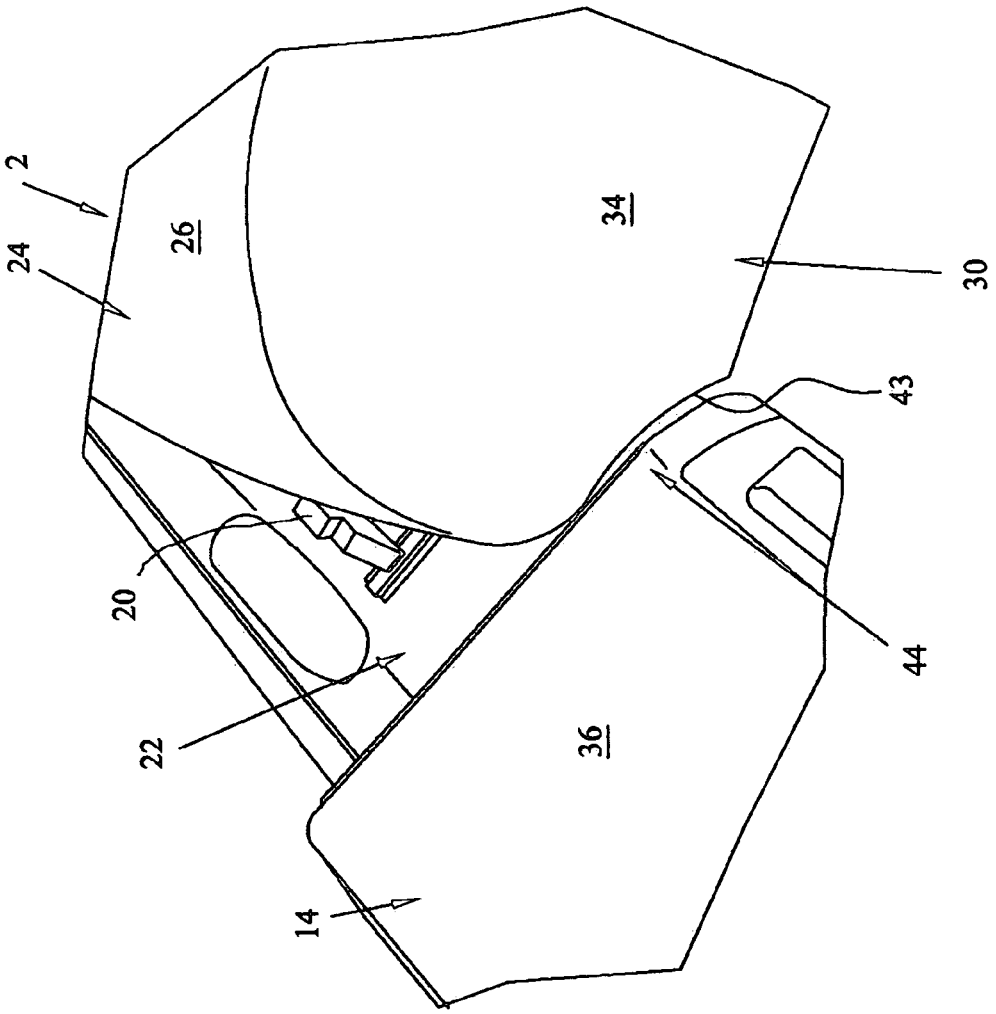


FIG. 2

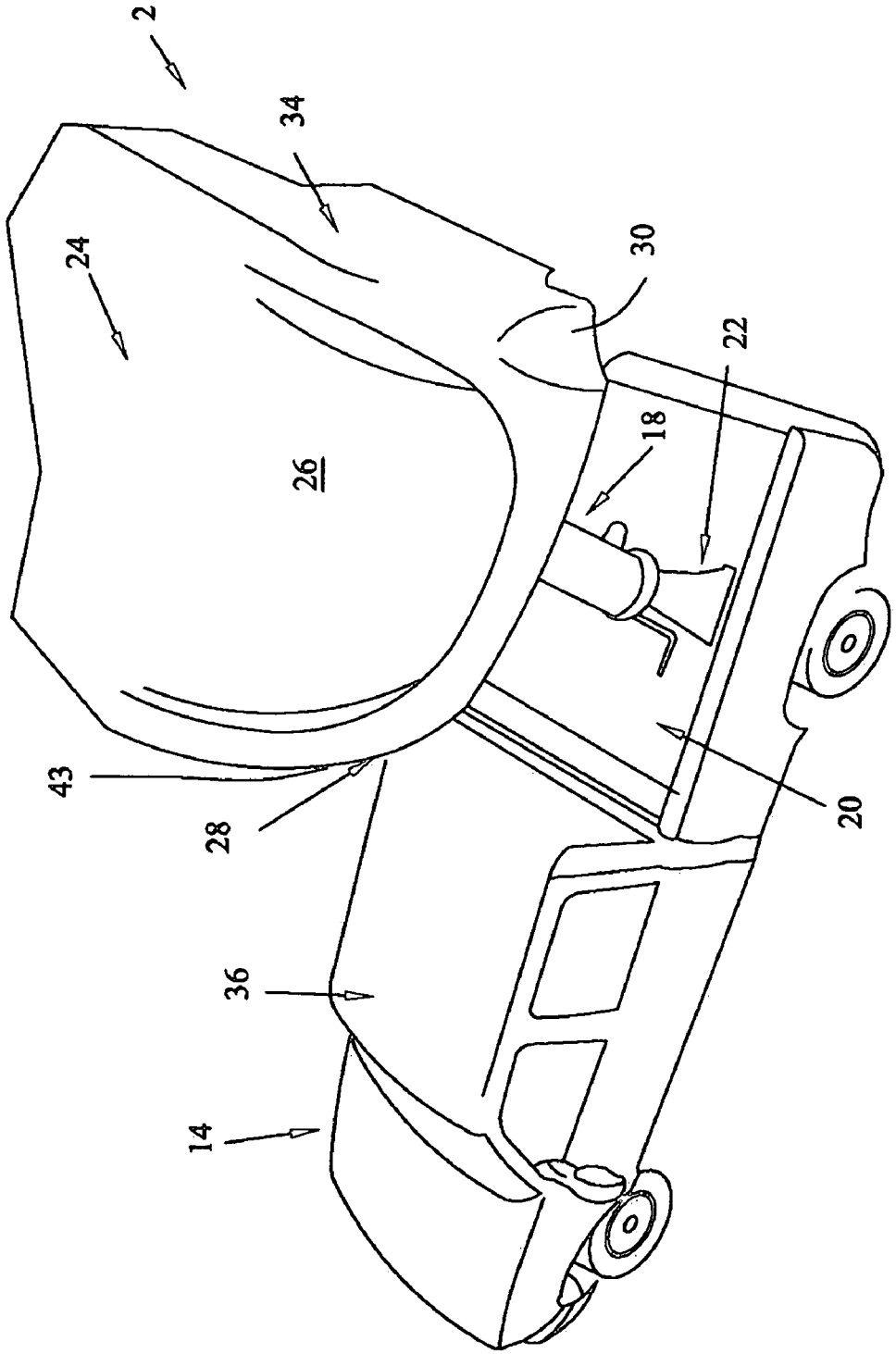


FIG. 3

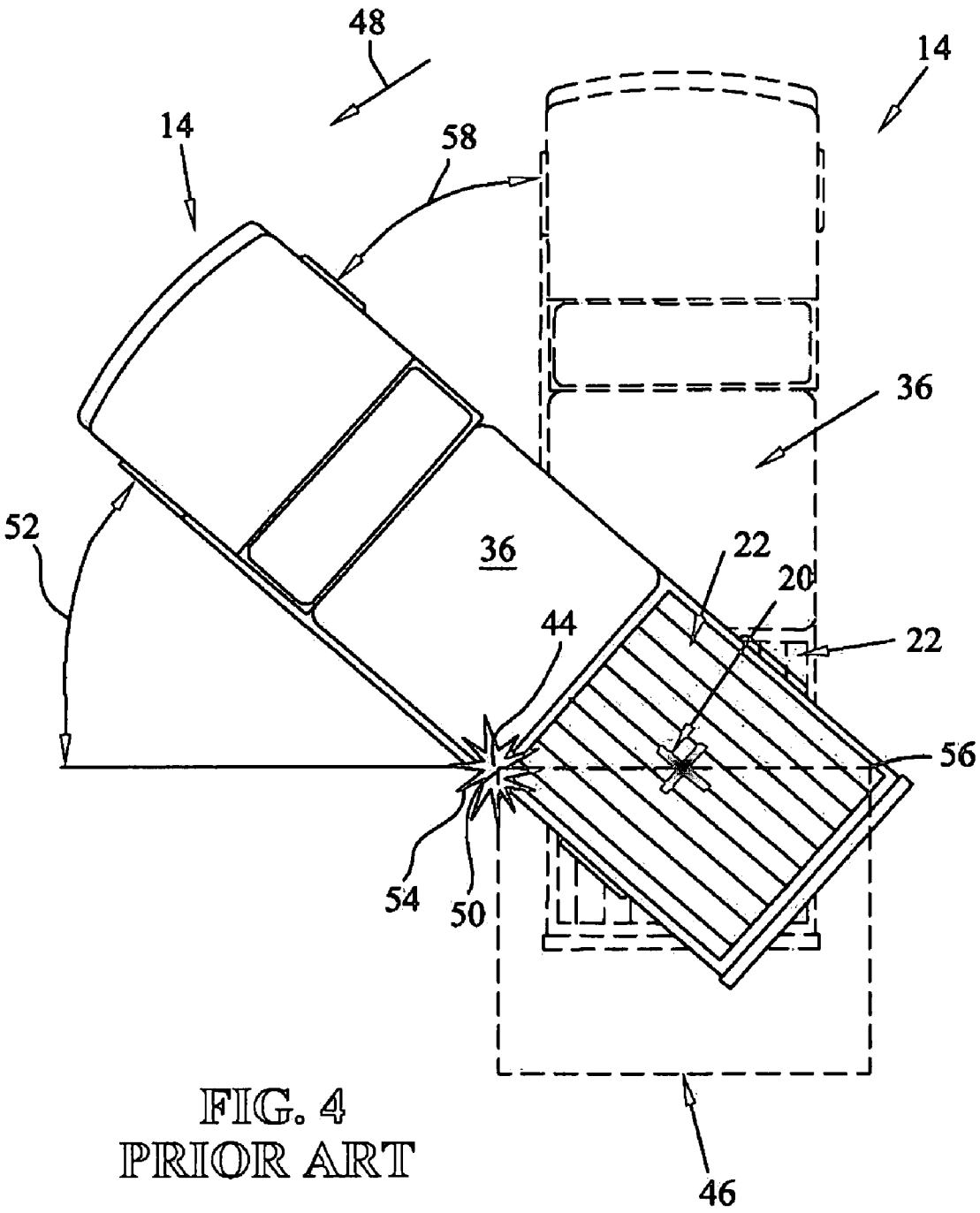


FIG. 4
PRIOR ART

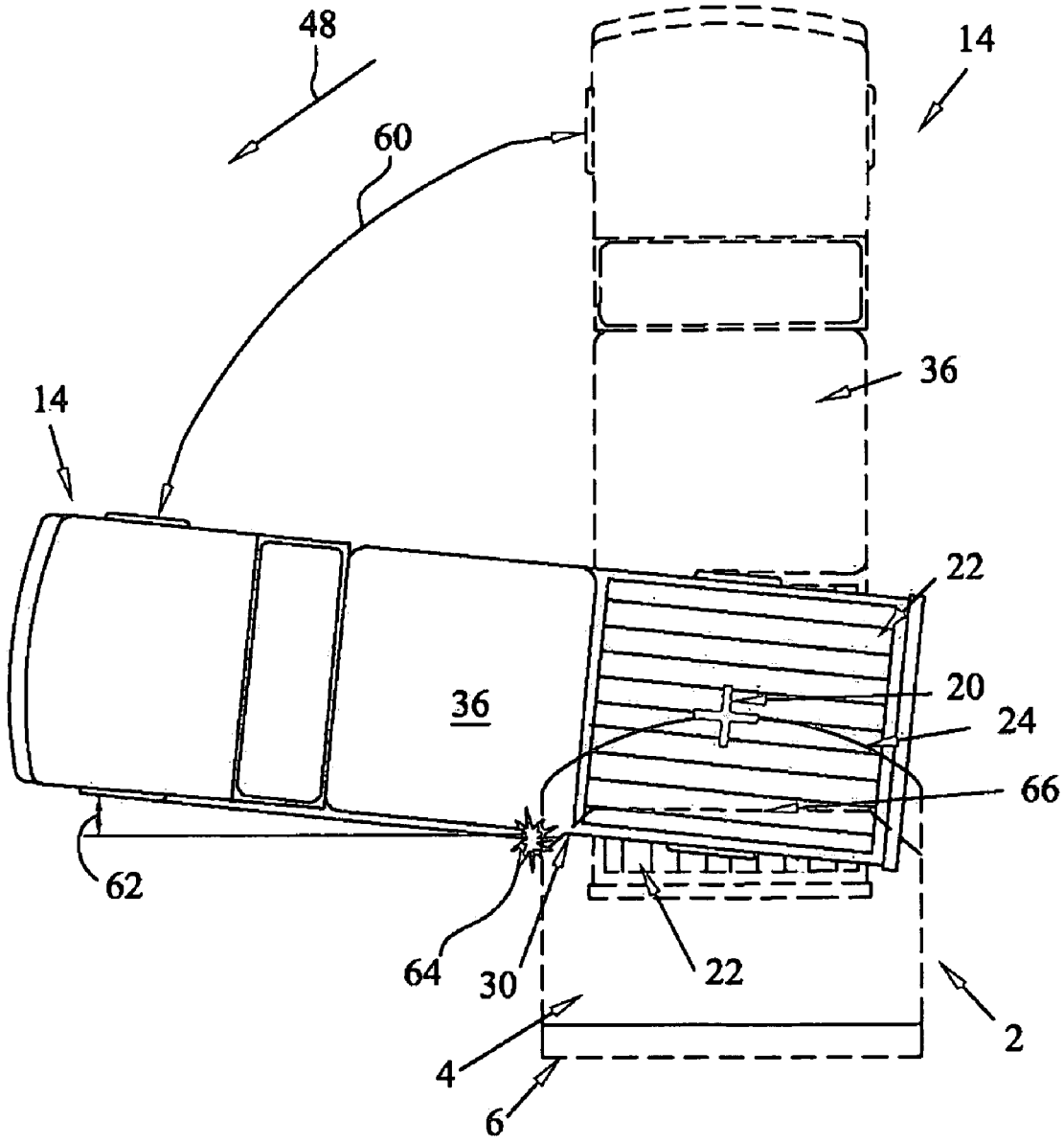


FIG. 5

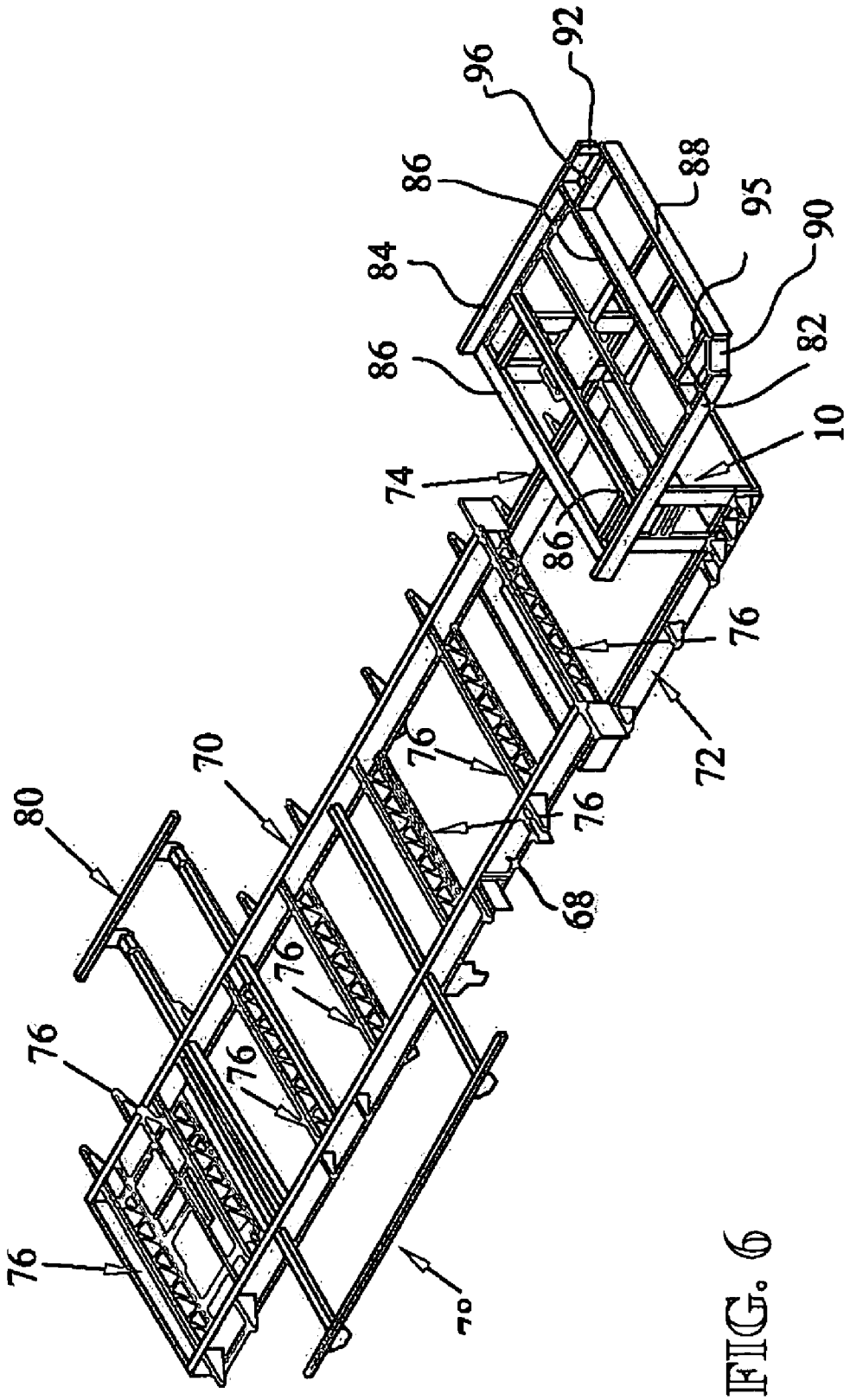


FIG. 6

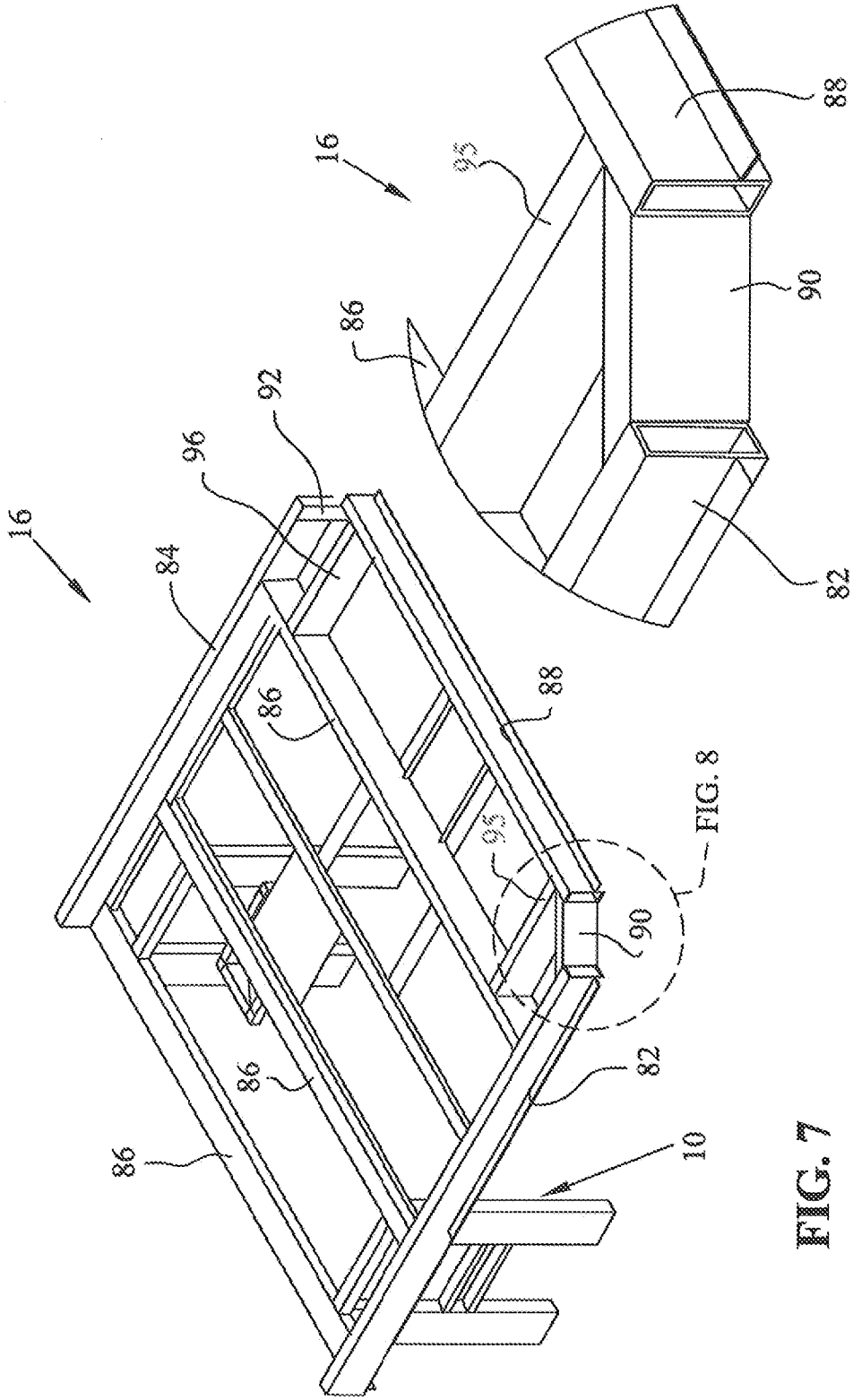
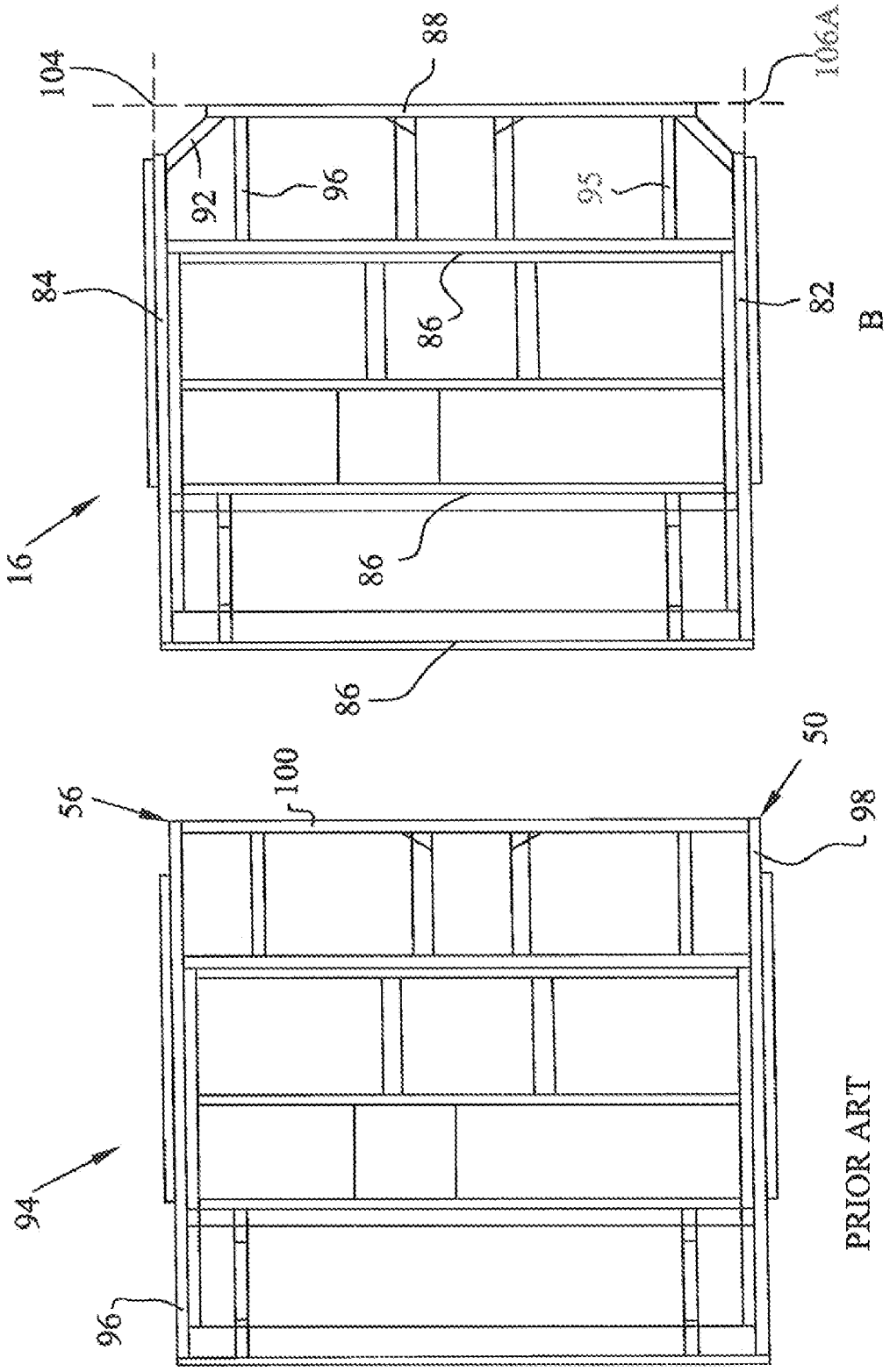


FIG. 7

FIG. 8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PRIOR ART
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FIG. 9

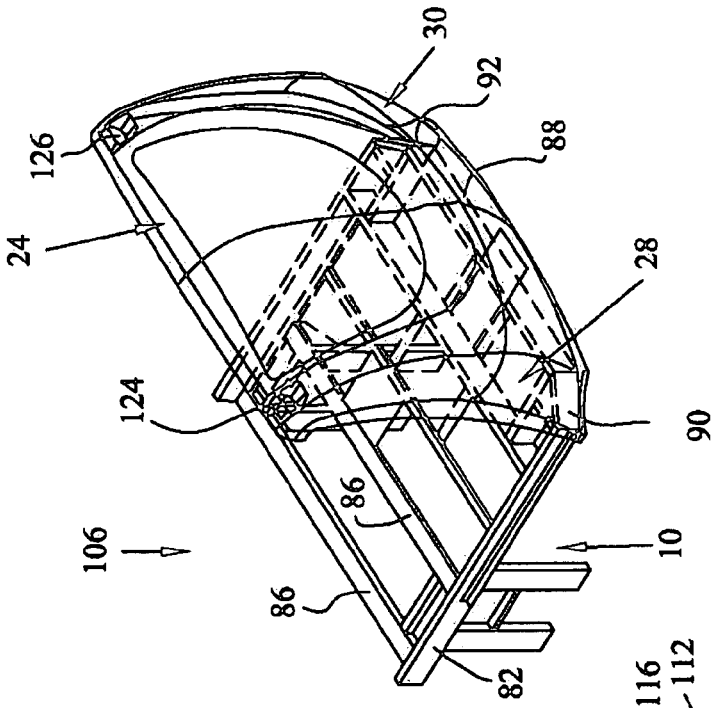
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FIG. 11

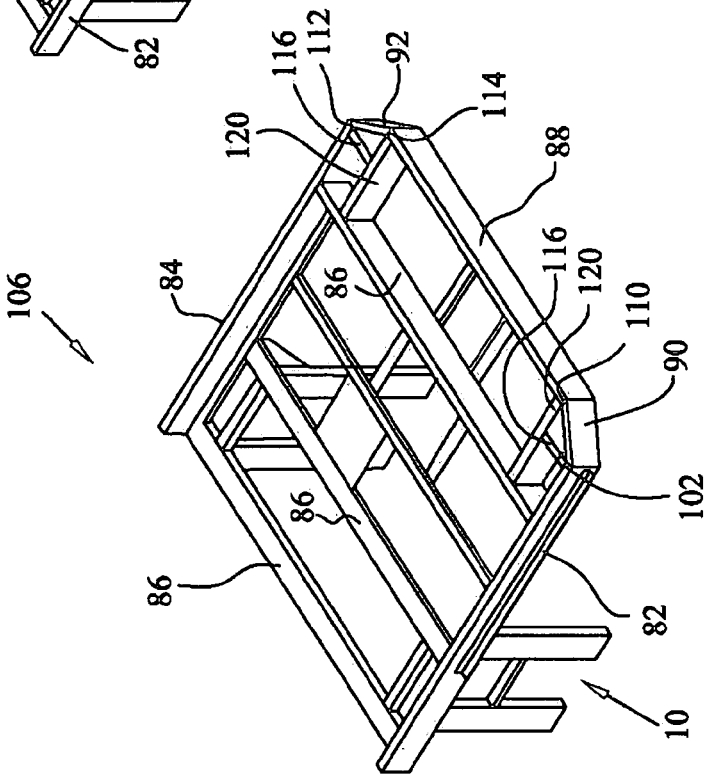
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FIG. 10

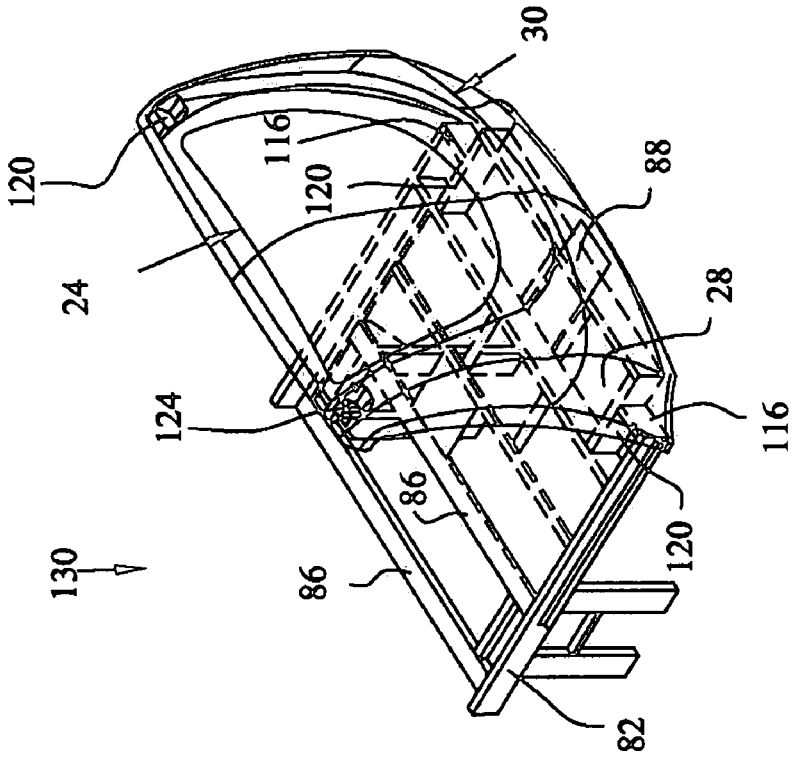
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FIG. 13

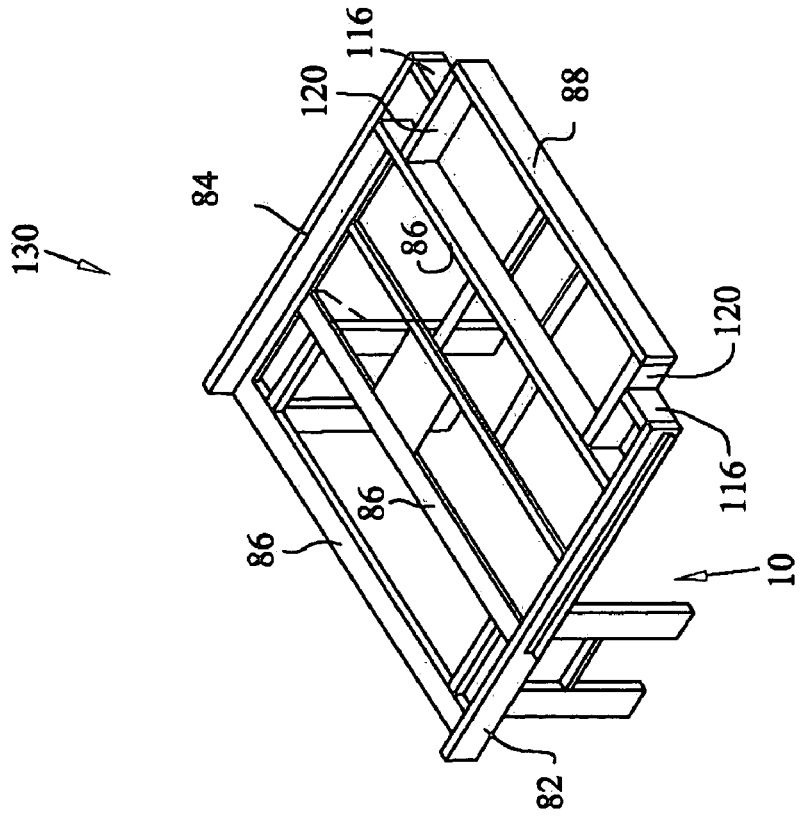
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FIG. 12

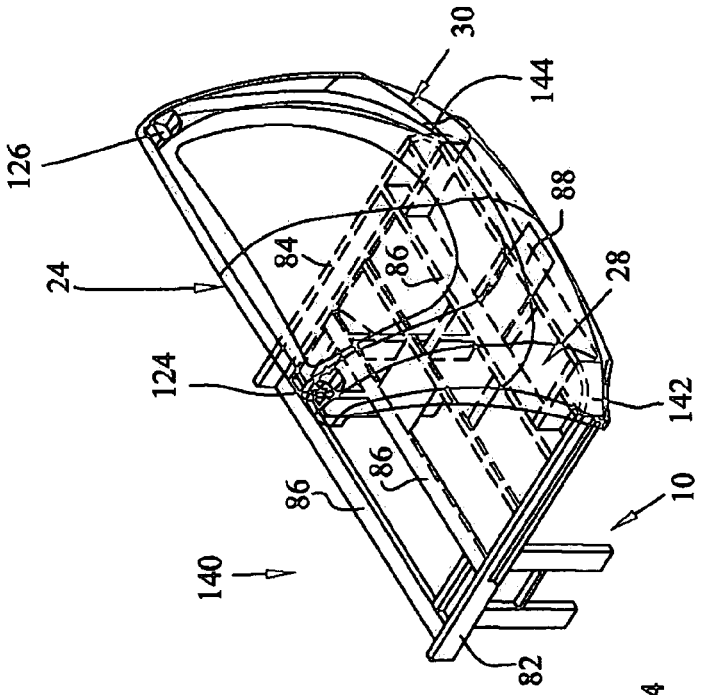
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FIG. 15

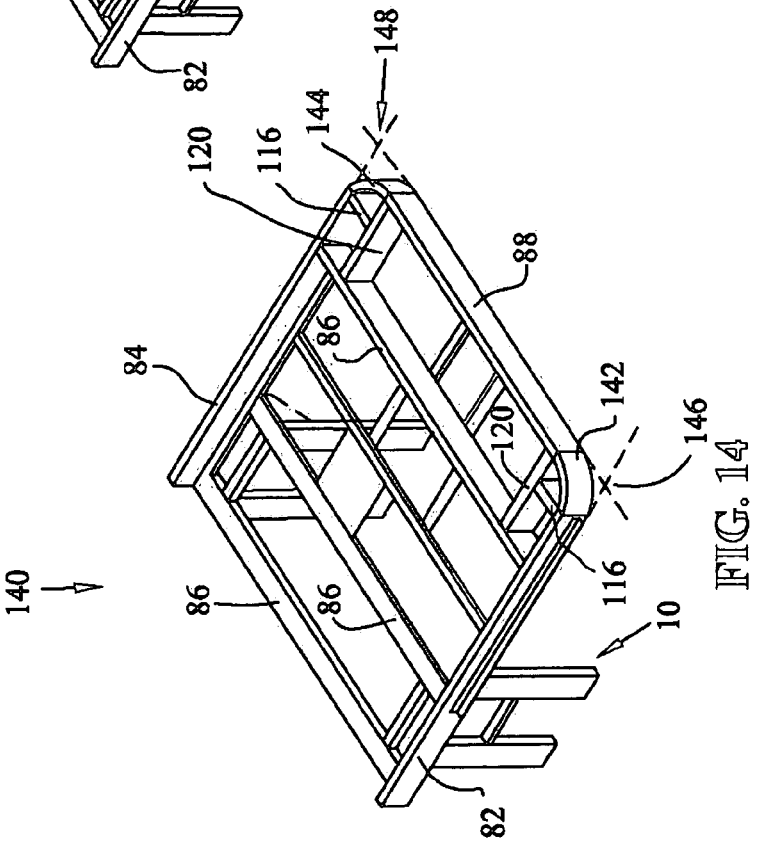
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FIG. 14

TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS

RELATED APPLICATIONS

The present application is related to and claims priority to U.S. Provisional Patent Application Ser. No. 60/557,302, filed on Mar. 29, 2004, entitled IMPROVED FIFTH WHEEL TRAILER. The subject matter disclosed in that provisional application is hereby expressly incorporated into the present application.

TECHNICAL FIELD

The present disclosure relates generally to travel and fifth wheel-type trailers. In particular, the present disclosure is related to the configuration of such trailers that are hitched to, and pivotable relative to, an attached towing vehicle.

BACKGROUND AND SUMMARY

Travel trailers and fifth wheel trailers are commonly known and used as campers or used for hauling. Typically, fifth wheels are configured to be pivotably attached to pickup or similar type trucks. The bed of the pickup truck has a mating hitch attached thereto configured to receive a hitch located on the underside of the forward end of the fifth wheel. The fifth wheel often comprises an upper deck and a lower deck. The upper deck is typically located forward on the fifth wheel and is configured to extend over the rear of the pickup truck so the hitch can attach to the mating hitch on the truck's bed.

An issue that has arisen in recent years with fifth wheels, precipitated by the development and popularity of extended-cab pickup trucks. These extended-cab pickup trucks, which typically offer a second row of seating, extend the cab length often at the expense of the bed length. A consequence of this is that more pickup trucks now exist with shortened beds than in the past. Accordingly, the upper decks of conventional fifth wheels now occupy a greater portion of that shortened bed than in truck beds of the past. The less space that exists between the cab of a short bed truck and the forward end of the fifth wheel, the more impaired the turning radius of the truck can be.

Conventionally, the upper deck of a typical fifth wheel has a rectangular or parallelogram-shape footprint whose forward corner edges form right-angles. The compartment extending upward therefrom is similarly cubicle and includes right-angled corner edges as well. These right-angled corner edges of the fifth wheel have a propensity to hit the rear corner of the cab of a tow vehicle if the turning radius of that vehicle becomes too great. As a result, the driver of the tow vehicle is required to either take broader turns or engage specialty hitches that extend the distance between the cab and the fifth wheel. These are not always desirable options because often there may not be available space to make a broad turn, and specialty hitches are cumbersome and expensive. Typically, these hitches are engaged before the turn and disengaged after the turn. It would, therefore, be beneficial to provide an alternative design of fifth wheel or travel trailer that is configured to increase the turning radius of the vehicle.

Accordingly, an illustrative embodiment of the present disclosure provides a travel trailer characterized by a chassis assembly coupled to a wheel assembly. A compartment is provided having at least one side wall and a forward wall. A hitch assembly is located adjacent the chassis assembly, and the forward wall. The hitch assembly is configured to couple to a mating hitch on a towing vehicle. The travel trailer also comprises a panel located between the side and forward walls. The panel forms an angle between itself and at least the side wall that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the angle formed between the sidewall and the panel reduces any right-angled attachment between the side and forward walls to improve the towing vehicle's turning radius relative to the travel trailer; the panel forms an angle between itself and forward wall that is greater than 90 degrees; the panel eliminates any right-angle attachment between the side and forward walls; and the chassis assembly comprises a recess at edges adjacent the panel.

Another illustrative embodiment of the travel trailer comprises a chassis, a wheel assembly, a hitch assembly, and an outer coupling rail. The chassis includes a front end and a rear end. The chassis also includes a front outer frame rail located substantially perpendicular to a side outer frame rail. The wheel assembly is coupled to the chassis adjacent the rear end. The hitch assembly is attached to the chassis adjacent the front end. The outer coupling rail extends between the front and side frame rails. The outer coupling rail forms an angle between itself and at least the side frame rail at a front edge of the travel trailer that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the coupling rail forming an angle between itself and the front frame rail that is greater than 90 degrees to improve the towing vehicle's turning radius relative to the travel trailer; the coupling rail eliminating a right-angle attachment between the side and front frame rails; and a compartment attached to the chassis at the front edge adjacent the outer coupling rail which comprises an inwardly oriented recess that extends from the chassis.

Another illustrative embodiment of the travel trailer comprises a chassis, a forward panel, at least one side panel, and a corner panel. The chassis assembly comprises a hitch assembly adjacent a front ends of the trailer and a plurality of wheels adjacent a rear end of the trailer. The forward panel is located at the front end. The corner panel joins the forward and side panels but does not form a right-angled vertex between the forward and side panels. This allows an increased turning radius for the trailer as compared to forward and the side panels that join to form a right-angled vertex.

In the above and other illustrative embodiments, the travel trailer may also comprise: the corner panel forming a recess at a front edge of the travel trailer; the chassis assembly comprising a frame assembly having a corner rail located at a front corner of the frame that does not form a right-angled vertex at the front corner of the frame; and a compartment having right and left front corners, each of which is recessed inwardly to allow an increased turning radius for the trailer as compared to front edges having a right-angled vertex.

Another illustrative embodiment of the travel trailer comprises a chassis, a compartment, and a corner panel portion. The chassis comprises a hitch assembly adjacent a front end of the trailer and a plurality of wheels adjacent a rear end of the trailer. The compartment comprises at least a forward panel portion located at the front end and at least one side panel portion. The corner panel joins the forward and the side panels and recesses inwardly toward the interior of the compartment to allow an increased turning radius for the travel trailer as compared to forward and the side panels that join to form a right-angled vertex.

Another illustrative embodiment is a travel trailer for use with a towing vehicle. The towing vehicle has a mating hitch coupled thereto and is configured to haul the travel trailer. The travel trailer further comprises a chassis and a hitch. The chassis itself comprises first and second longitudinally extending side frame members, forward and rearward cross-members, and a first brace. The first and second longitudinally extending side frame members are oriented substantially parallel to each other and located exteriorly on the chassis. The forward and rearward cross-members are oriented substantially perpendicular to the first and second side members. The forward cross-member is also located exteriorly on the chassis and whose end does not attach to a corresponding end of the first side member. The first brace is attached adjacent the ends of forward cross-member and the first side member, and is located exteriorly on the chassis, and is oriented non-parallel to both the forward cross-member and the first side member. The hitch is attached to a portion of the chassis and couples with the mating hitch on the towing vehicle.

In the above and other illustrative embodiments, the travel trailer may also comprise: the towing vehicle having a bed that has the mating hitch attached thereto, and wherein a portion of the chassis is located over the bed; a compartment attached to the chassis and at least one recessed corner edge located at a forward end of the trailer adjacent the first brace to allow an increased turning radius for the travel trailer; and a frame having angled corner edges adjacent the recesses at the front end of the compartment.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises, a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess is located at each corner edge of the compartment such that cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a coupling is attached to the chassis adjacent the front end. The front end of the chassis forms first and second corner edges that are recessed.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a chassis assembly, a hitch, a compartment and a cap. The chassis assembly includes front and rear ends. The hitch is attached to the chassis assembly adjacent the front end. The compartment is attached to the chassis assembly. The cap is located at the front end of the chassis and attached to the compartment. The cap has at least one front corner edge that includes a recess directed inward toward the compartment.

In the above and other illustrative embodiments, the travel trailer may also comprise: the cap further comprising a second front corner edge that also includes a recess directed inward toward the compartment; the space formed by the recesses being configured to receive a portion of the vehicle when engaged in a turn; the cap being a monolithic structure; and the cap being a plurality of structures.

Additional features and advantages of the travel trailer will become apparent to those skilled in the art upon consideration of the following detailed description of the illustrated embodiment exemplifying the best mode of carrying out the travel trailer as presently perceived.

BRIEF DESCRIPTION OF DRAWINGS

The present disclosure will be described hereafter with reference to the attached drawings which are given as non-limiting examples only, in which:

FIG. **1** is front perspective view of an illustrative trailer including recessed front corners according to an illustrative embodiment of the present disclosure;

FIG. **2** is a top perspective detail view of a front corner edge portion of the trailer and a rear cab portion of a tow vehicle engaged in a turn;

FIG. **3** is another top perspective detail view showing the other front corner edge portion of the trailer and the other rear cab portion of the tow vehicle engaged in a turn;

FIG. **4** is a top schematic view of an illustrative tow vehicle and a prior art trailer;

FIG. **5** is a top schematic view of the illustrative tow vehicle of FIG. **4** and a trailer according to an illustrative embodiment of the present disclosure;

FIG. **6** is a perspective view of a trailer frame according to an illustrative embodiment of the present disclosure;

FIG. **7** is a perspective view of a portion of the trailer frame of FIG. **6**;

FIG. **8** is a detail perspective view of a portion of the trailer frame about section A of FIG. **7**;

FIG. **9***a* is a top view of a portion of a prior art trailer frame;

FIG. **9***b* is a top view of a portion of the trailer frame of FIG. **6**;

FIG. **10** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **11** is a perspective view of the portion of the frame of FIG. **10** including a front cap assembly coupled thereto;

FIG. **12** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **13** is a perspective view of the portion of the frame of FIG. **12** including a front cap assembly coupled thereto;

FIG. **14** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure; and

FIG. **15** is a perspective view of the portion of the frame of FIG. **14** including a front cap assembly coupled thereto.

Corresponding reference characters indicate corresponding parts throughout the several views. The exemplification set out herein illustrates embodiments of the travel trailer, and such exemplification is not to be construed as limiting the scope of the travel trailer in any manner.

DETAILED DESCRIPTION OF THE DRAWINGS

A front perspective view of an illustrative fifth wheel or travel trailer **2** is shown in FIG. **1**. The trailer shown in this view is commonly referred to as a fifth wheel trailer. This trailer **2**, as well as other trailer designs, generally comprises a compartment **4** that sits on a frame chassis **6** (see, e.g., FIGS. **6** through **15**) which are tied to a plurality of wheels **8**. This trailer **2** includes a dual deck design having a step **10** located near the front end **12** of trailer **2**. The step **10** allows the upper deck **16** of compartment **4** to extend over the bed of a tow vehicle **14** such as a pickup truck. (See also FIG. **2**.) Attached to upper deck **16** of trailer **2** is a hitch assembly

18. This hitch assembly 18 is located adjacent the front end 12 of trailer 2, as well. The hitch assembly 18 is configured to engage a mating hitch assembly, typically located on bed 22 of the vehicle 14. (See, e.g., FIG. 2.)

The forward most end of the compartment comprises an illustrative forward end cap 24. In this illustrative embodiment, end cap 24 comprises a forward face 26, recessed corner edges 28, 30 and side panels 32, 34. Illustratively, the forward face 26 is bowed outwardly from compartment 4 with its apogee located near the vertical center of the same, as shown in FIG. 1. Also, as one illustrative embodiment, the recessed corner edges 28, 30 follow a similar contour as forward face panel 26. This allows a portion of the compartment to extend forward of the rear end of passenger compartment 36 of tow vehicle 14. (See, e.g., FIG. 5.) In addition, at least a portion of the front corners of the trailer 2 are occupied by the recessed corner edges 28, 30. Clearance provided by recessed corner edges 28, 30 is particularly useful for fifth wheels and other trailers that include an upper deck 16 similar to that shown herein. Since the portion of the compartment located over upper deck 16 is adjacent the rear end of passenger compartment 36 on vehicle 14, limited distance between the two structures may exist. It is this limited distance that inhibits the turning radius of the vehicle 14. As shown in FIG. 1, the space formed by the inward-directed, arcuate profile corners, can receive a portion of compartment 36, thus, creating enhanced turn radiuses, as compared to conventional right-angle vertex cornered edges of conventional trailers. The distinction between the two corner types is illustratively indicated by reference numeral 38. Thus, recessed corner edges 28, 30 are directed inwardly toward the interior of compartment 4, the effective turn radius available for the trailer can be enhanced over conventional fifth wheel or other travel trailers having standard 90 degree corner edges.

It is appreciated that alternative embodiments of forward end cap 24, may include any number of shapes having inward-directed corners. Cap 24 may also be manufactured from a plurality of panels, or may be a monolithic molded or formed structure. Illustratively, in one embodiment, forward face 26 may comprise a separate forward panel, separate recessed, and/or even separate angled panels attached thereto, along with separate side panels attached thereto. It is further appreciated that in other illustrative embodiments, the recessed corner edges can be of varying shape, depth, contour, and angle to accommodate and increase the turning radius of the attached vehicle.

A top perspective detail view of recessed corner edge 30 of trailer 2 coupled to vehicle 14 which is engaged in a turn, is shown in FIG. 2. A cavity 42 produced by the contour of recessed corner edge 30 receives at least a portion of corner 44 of vehicle 14. As shown in this view, mating hitch assembly 20 is attached to bed 22 of vehicle 14 and is engaged to hitch assembly 18 to pivotably attach trailer 2 to vehicle 14. (See, also, FIG. 3.) This view demonstrates how such a turn would not be possible without recessed corner edge 30. Side wall 34, if extended more forwardly on trailer 2, along with front face 26 extending its width, a conventional right-angle corner edge would be formed that would become crushed during such a tight turn shown therein. From this view it is appreciated that the recessed corner edge 30 can be contoured as desired, so its cavity 43 receives a portion of the corner of the cab of the vehicle having any unique or conventional configuration. (See FIG. 3.) It is contemplated herein that the invention is not limited to the specific size, shape, and contour of the recessed portion. It can further be seen from this view how the arcuate contour of forward end cap 24 can increase the amount of available space in the compartment by being able to extend over at least a portion of passenger compartment 36 of vehicle 14. (See, also, FIG. 5.) This may be achieved either independently or in combination with recessed corner edges 28, 30.

Another top perspective detail view showing an opposite turn of vehicle 14 with respect to trailer 2, is shown in FIG. 3. This view demonstrates how recessed corner edge 28, similar to that shown with respect to recessed corner edge 30, can increase the turn radius of vehicle 14. Such a sharp turn, as depicted in this view, could not be achieved with a trailer having conventional right-angled corner edges.

To further illustrate, a top schematic view of tow vehicle 14 hitched to a prior art, conventionally-shaped trailer 46, is shown in FIG. 4. As vehicle 14 turns in direction 48, the corner 50 of prior art trailer 46 impacts rear corner 44 of passenger compartment 36 at a relatively shallow angle. This produces a relatively large crush zone as indicated by reference numeral 52 at impact 54. Because the forward corners of prior art trailer 46 include corners having right-angled edges as indicated by reference numerals 50 and 56, the turn radius is relatively small, as indicated by reference numeral 58.

In contrast, as shown in FIG. 5, the same vehicle 14 is shown making a turn with an illustrative embodiment of trailer 2 hitched thereto. As shown, when vehicle 14 turns in direction 48, the recessed corner edge 30 provides enough clearance to create a relatively large turn radius, indicated by reference numeral 60, and has a relatively small crush zone 62 at impact point 64. It is also appreciated from this view how the illustrative arcuate shape of forward end cap 24, as described with respect to FIG. 1, may enhance the available space within compartment 4. In this view it is shown that the forward edge 66 is recessed towards the interior of compartment 4 relative to the forward most point of forward end cap 24. In one illustrative embodiment this combination between the arcuate shape of forward end cap 24 and the recessed positioning of forward edge 66 of chassis 6 provides a compromise between increased interior space of compartment 4 and the enhanced turning radius as shown.

A perspective view of an illustrative embodiment of chassis 6 is shown in FIG. 6. Chassis 6 is illustratively a frame that the flooring and compartment are built upon. Such framing includes side frame members 68, 70 extending longitudinal from front to rear and are joined by additional side frame members 72, 74. In this illustrative embodiment, cross beams 76 extend between the side frame members 68 through 74. Shown in this illustrative embodiment are also slide-out frame members 78 and 80. As discussed with respect to FIG. 1, this trailer includes a step 10 that provides the upper deck 16, herein formed on the chassis by side frame members 82, 84 and structurally secured by cross beams 86. As shown herein, side frame members 82, 84 do not extend and attach directly to forward edge beam 88. Rather, angled braces 90 and 92 extend between frame members 82, 84 and forward edge beam 88 respectively, as shown herein. Angled braces 90, 92, thus, effectively eliminate the right-angled corner edges known to inhibit the turning radius of the vehicle relative to the trailer. It is contemplated that the precise angle formed between, for example, frame members 82 and angled brace 90, can be of any angle to allow a recess to form. As illustratively shown herein, the angle formed between the two structures is greater than 90 degrees. The same is illustratively the case with the angle between forward edge beam 88 and both

angled braces **90**, **92** as shown herein. Also shown are illustrative forward brace members **94**, **96** which serve to strengthen chassis **6**.

A perspective view of a portion of chassis **6** is shown in FIG. **7**. Specifically, shown is the upper deck portion **16** which includes side frame members **82**, **84**, and cross beams **86**. Forward edge beam **88** is shown attached to angled braces **90**, **92**, which are themselves attached to side frame members **82**, **84**, respectively. A detail view of a forward corner of upper deck **16** is shown in FIG. **8**. This view further illustrates the attachment of angled brace **90** forward edge beam **88**, and side frame member **82**. It can be appreciated from this view how beam **88** and side frame member **82** do not directly attach, thus eliminating the right-angle corner edge that would otherwise be formed by their attachment.

Top views of the upper deck of the travel trailer are shown in FIGS. **9***a* and *b*. Specifically, FIG. **9***a* is a prior art version of such an upper deck, whereas FIG. **9***b* depicts upper deck **16** as discussed with respect to FIGS. **6** through **8**. Comparing the structure of **9***a* to the structure of **9***b* much is similar except for the forward corners and the forward edge beams. For example, the prior art upper deck **94** uses side frame members **96**, **98** to attach to forward edge beam **100** to form corner right-angled edges **50**, **56**. (See, also, FIG. **4**.) It is these corner edges that can limit the turning radius of vehicle **14** for the reasons previously discussed. By comparison, such corner edges have been removed from upper deck **16**, as indicated by reference numerals **106**A, **104** in FIG. **9***b*.

Perspective views of another illustrative embodiment of an upper deck frame **106** are shown in FIGS. **10** and **11**. As shown in FIG. **10**, many of the side frame members **82**, **84**, as well as cross beams **86**, are the same or similar to that shown in the previous embodiments. Furthermore, forward edge beam **88** is also positioned in a comparable location as prior embodiments. This illustrative embodiment differs from the prior embodiments from the perspective that angled braces **90**, **92** are attached to the ends of frame members and beams **82**, **88** and **84**, **88**, respectively. For example, angled brace **90** is attached to the terminus **108** of side frame member **82**. Similarly, angled brace **90** is attached to terminus **110** of forward edge beam **88**. Angled brace **92** follows suit by attaching to side frame member **84** at terminus **112** and to forward edge beam **88** at terminus **114**. In this embodiment cross beams **116** and **120** illustratively provide structural support to the forward corners.

The perspective view of upper deck frame **106** in FIG. **11** shows an illustrative embodiment of forward end cap **24** attached thereto. The angled braces **90**, **92** accommodate the recessed corner edges **28**, **30**, as previously discussed. It is appreciated that the recessed corner edges may follow the contour of braces **90**, **92**, or they may, as shown herein, form a differently shaped recessed cavity. Further shown in this view are illustrative attachments **124**, **126** which are configured to be used to attach end cap **24** with compartment **4**. It is appreciated, however, that other means of attachment and/or sealing can be employed.

Perspective views of another illustrative embodiment of upper deck **130** of a trailer are shown in FIGS. **12** and **13**. As shown in FIG. **12**, upper deck **130** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is that angled braces **90**, **92** are removed completely which illustratively provides an even deeper recess within the forward corners of the deck **130**. As shown, cross beams **116**, **120** serve as the outer structure of deck **130** at the forward corners. Although cross beam **116** forms a right-angle attachment with side frame member **82**, and cross beam **120** does the same with forward edge beam **88**, frame member **82** does not attach to forward edge beam **88** to form a right-angled corner edge as disclosed in the prior art. Rather the right angle attachments disclosed in this illustrative embodiment are directed inwardly toward the interior of compartment **4**. Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **130** in FIG. **13**. It is, again, appreciated that the recessed corner edges can be of any useful depth and may be formed to conform to the shape of the cavities created by cross beams **116**, **120**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Perspective views of another illustrative embodiment of upper deck **140** of a trailer are shown in FIGS. **14** and **15**. As shown in FIG. **14**, upper deck **140** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is arcuate braces **142**, **144**. As shown, cross beams **116** and **120** still serve as structural supports adjacent the forward corners. Arcuate braces **142**, **144**, however, serve as the outer frame members at the forward corners, each attached to their respective frame members **82**, **84**, and both attached to forward edge beam **88**. The forward corners are still recessed as indicated by reference numerals **146**, **148** which depict conventional forward frame corners. (See, also, FIG. **9***a*.) Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **140** in FIG. **15**. It is, again, appreciated that the recessed corner edges **28**, **30** can be of any useful depth and may be configured to conform to the shape of the cavities created by arcuate braces **142**, **144**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Although the present disclosure has been described with reference to particular means, materials and embodiments, from the foregoing description, one skilled in the art can easily ascertain the essential characteristics of the present disclosure and various changes and modifications may be made to adapt the various uses and characteristics without departing from the spirit and scope of the present invention as set forth in the following claims.

What is claimed is:

1. A travel trailer chassis comprising:

a forward edge beam having a first end;

an outer side frame member substantially perpendicular to the forward edge beam, the outer side frame member having a forward end;

a first cross beam substantially perpendicular to the side frame member and connected to the forward end of the side frame member at a location rearward of the forward edge beam; and

a second cross beam substantially parallel to the outer side frame member and connected to the first cross beam and the first end of the forward edge beam.

2. The chassis according to claim **1**, wherein the outer side frame member, first cross beam, second cross beam and forward edge beam form an inwardly directed recess.

3. The chassis according to claim **2**, wherein the inwardly directed recess is a right angle.

* * * * *

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(12) **United States Patent**
Rhymer et al.

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(54) **TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS**

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(58) **Field of Classification Search** 280/441.2, 280/783, 789; 296/168, 24.31, 182.1, 186.1
See application file for complete search history.

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(57) **ABSTRACT**

A travel trailer configured to be coupled to and towed by a vehicle is provided. The travel trailer has a compartment that is attached to a chassis which includes a front end and a rear end. A plurality of wheels are attached to the chassis adjacent the rear end, and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess, directed inwardly toward the interior of the compartment, is located at each corner of the compartment. Cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

33 Claims, 11 Drawing Sheets

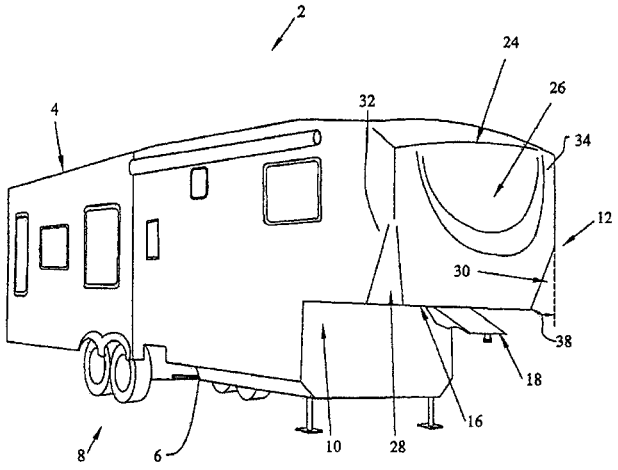

EXHIBIT 2

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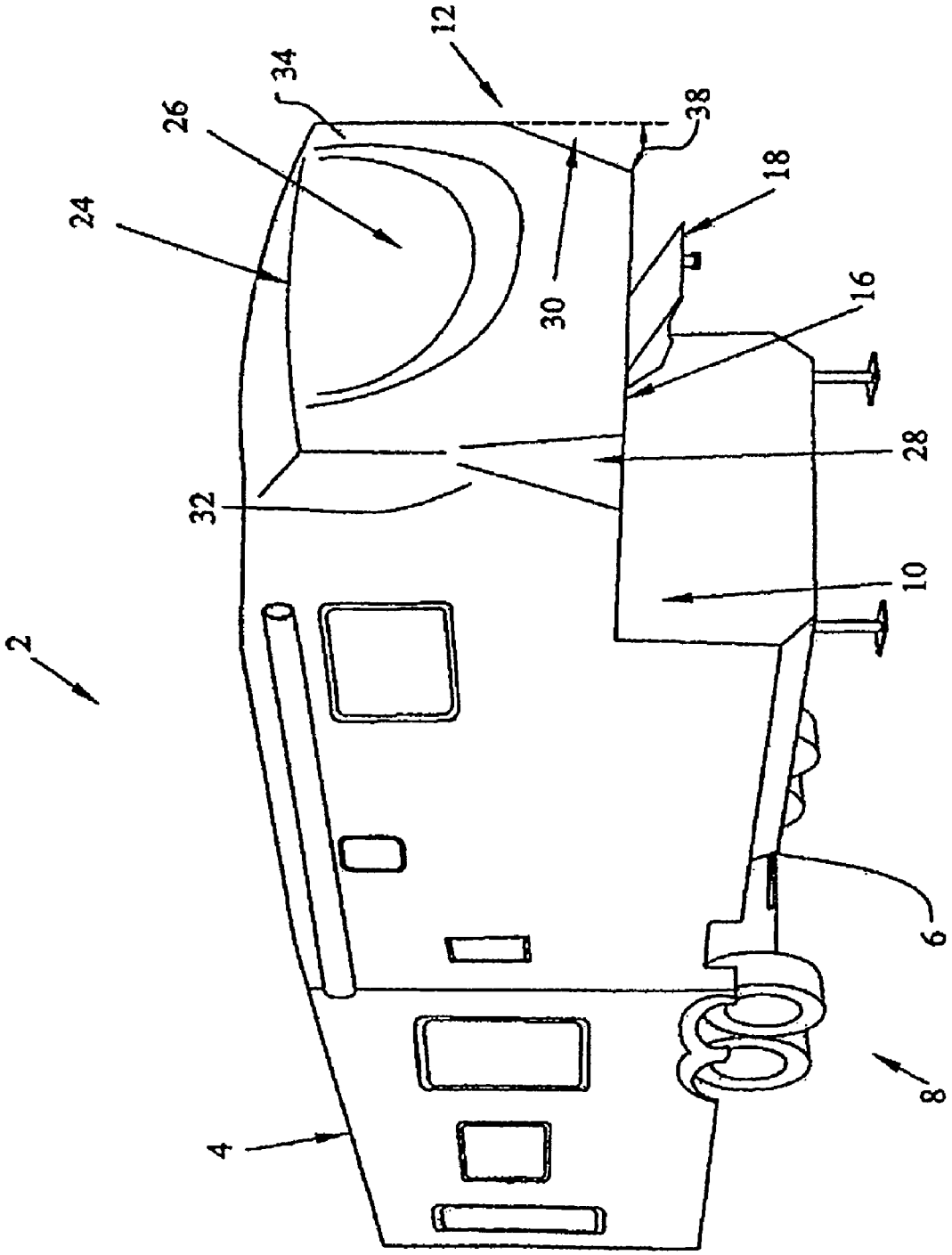

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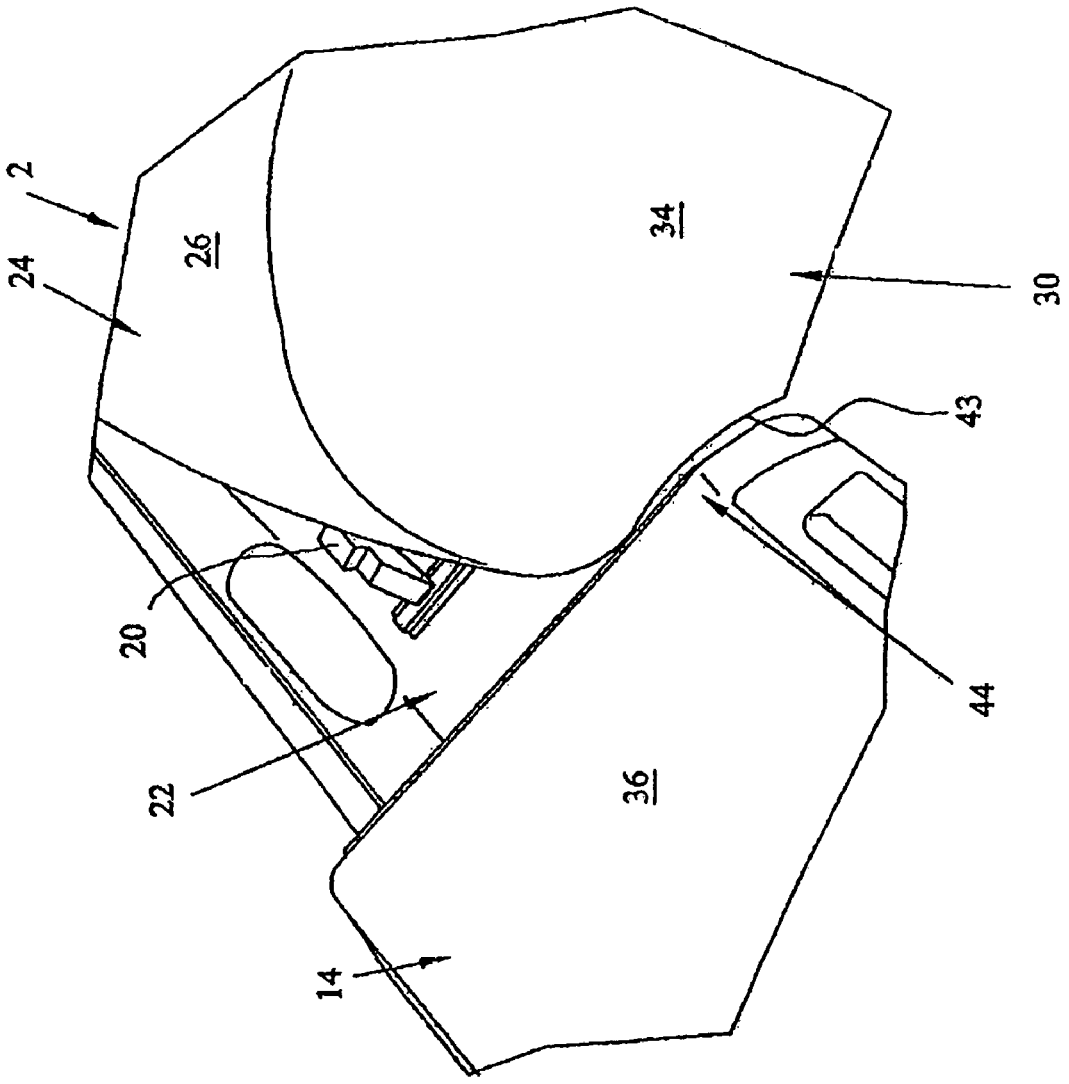


FIG. 2

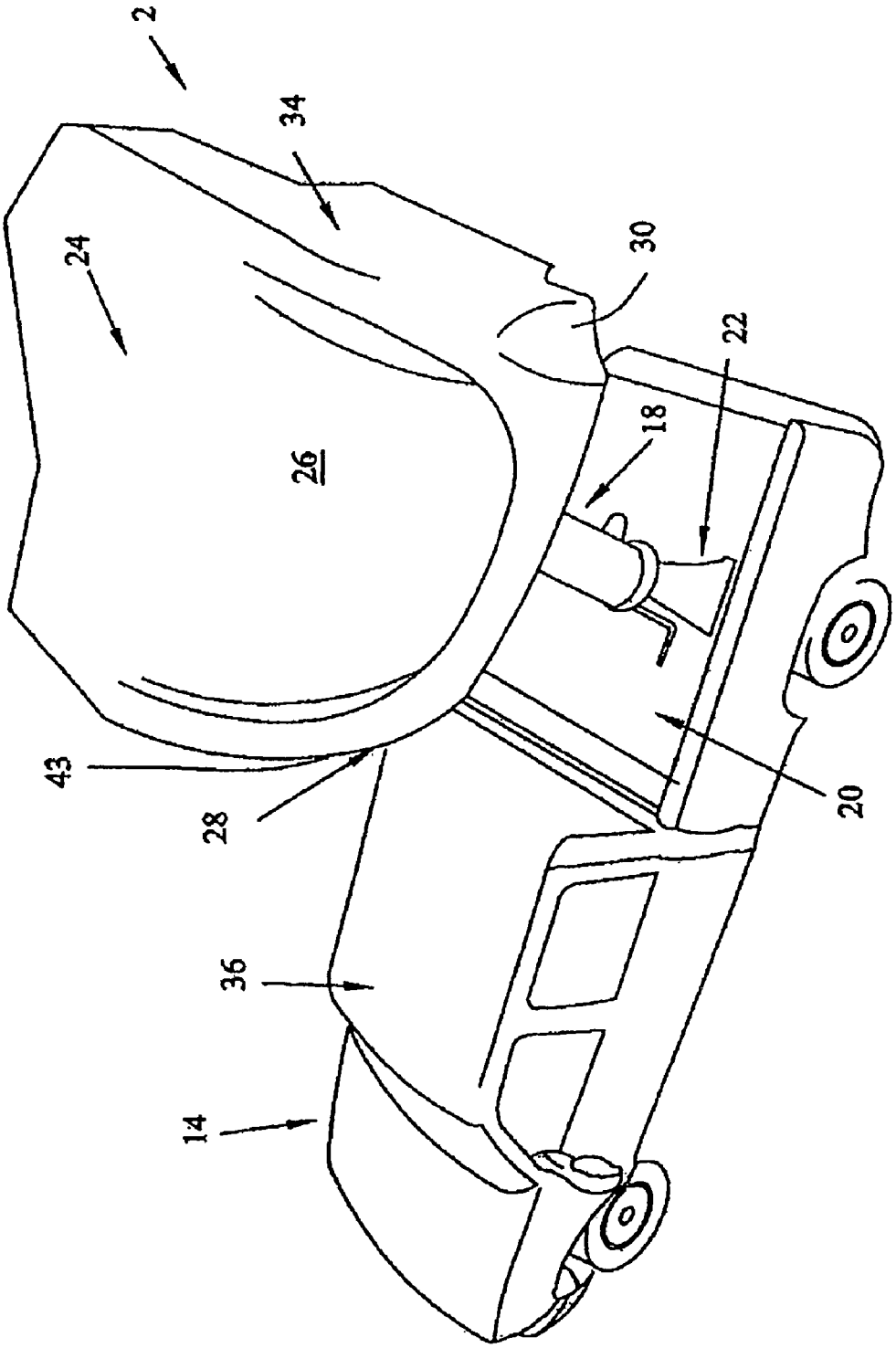


FIG. 3

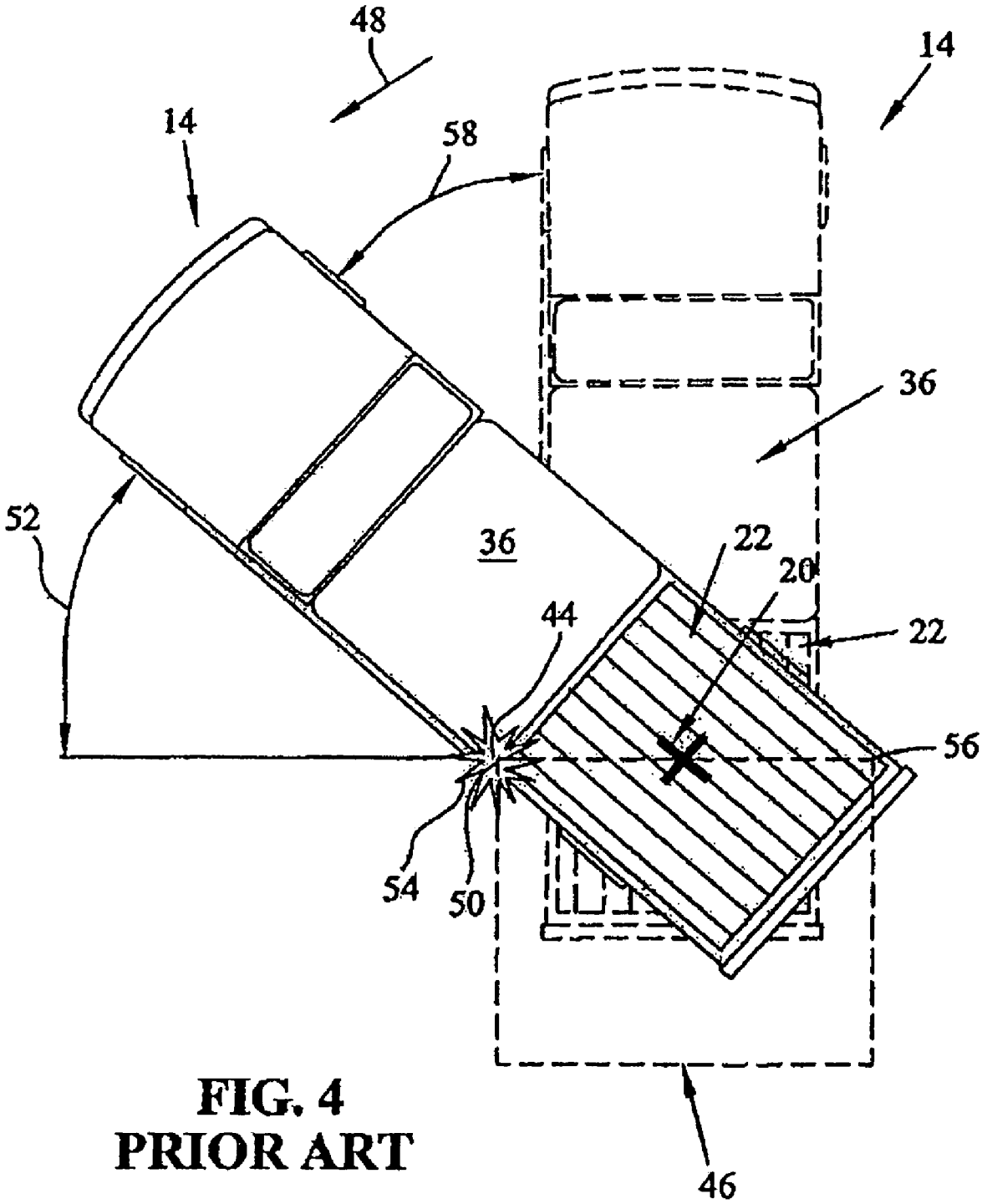


FIG. 4
PRIOR ART

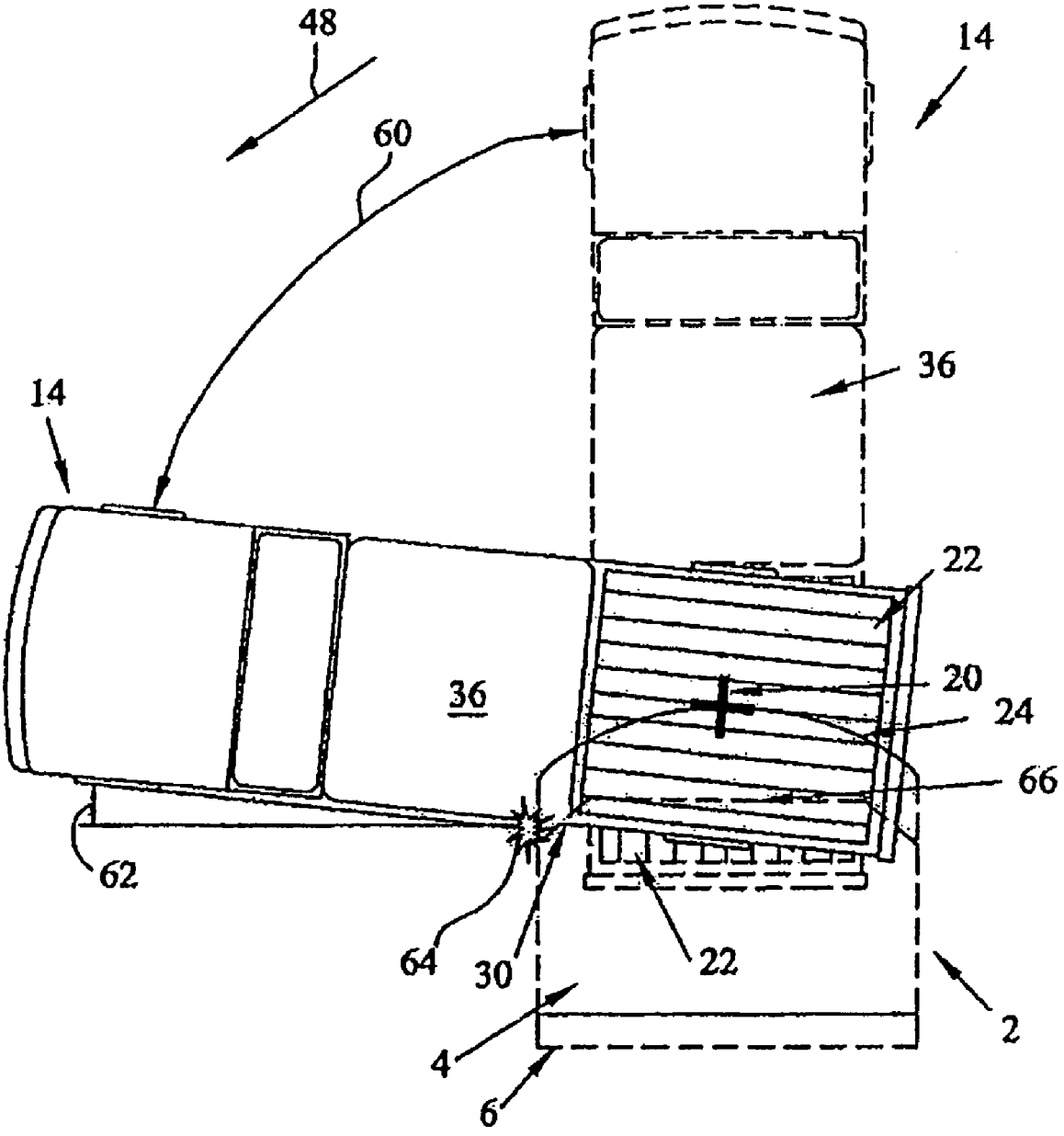


FIG. 5

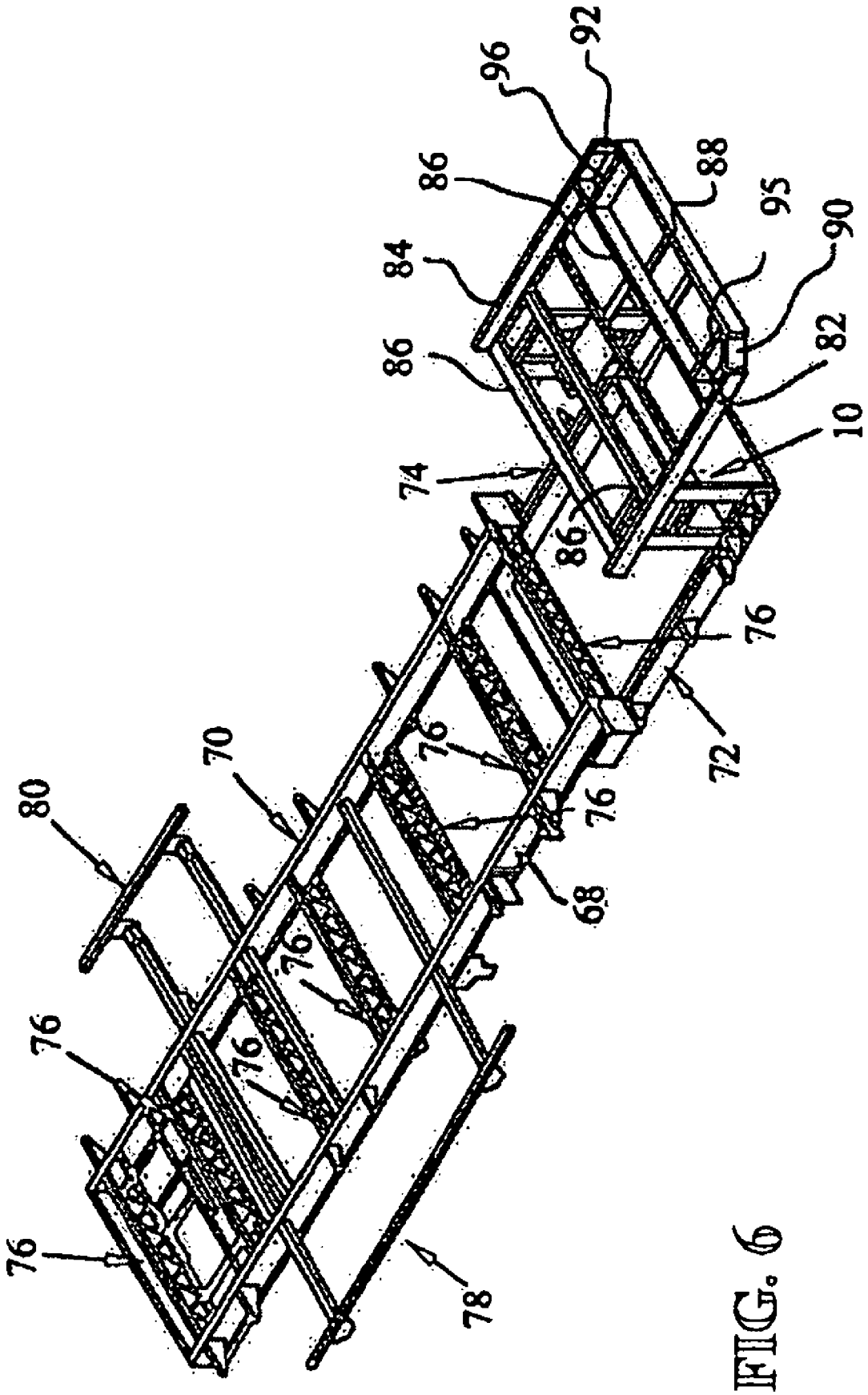


FIG. 6

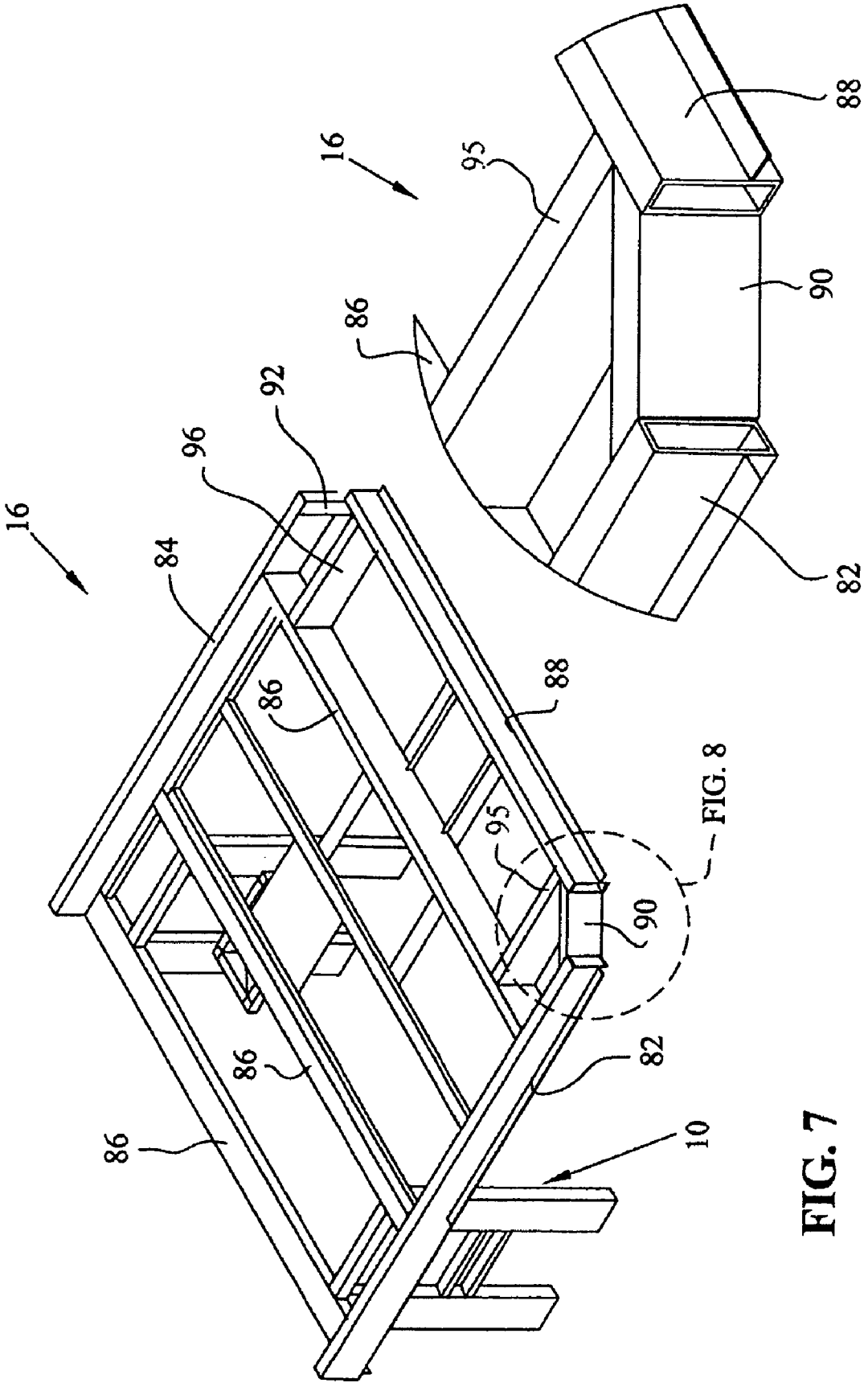
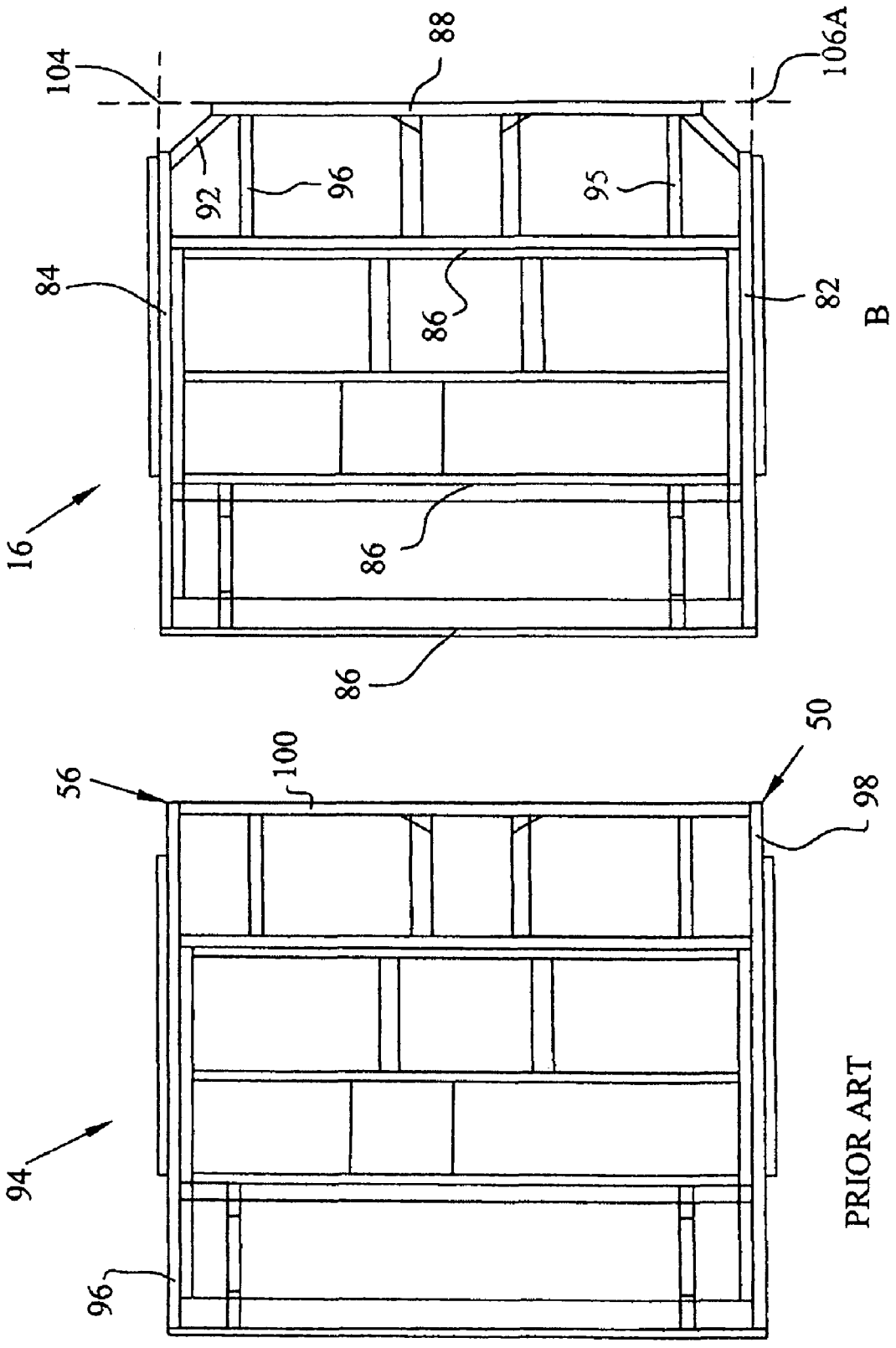


FIG. 7

FIG. 8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PRIOR ART
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FIG. 9

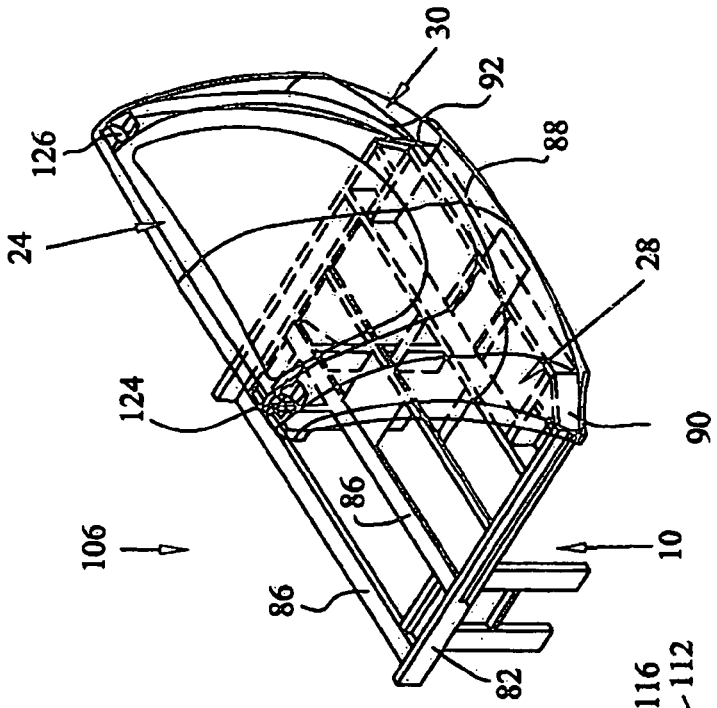
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FIG. 11

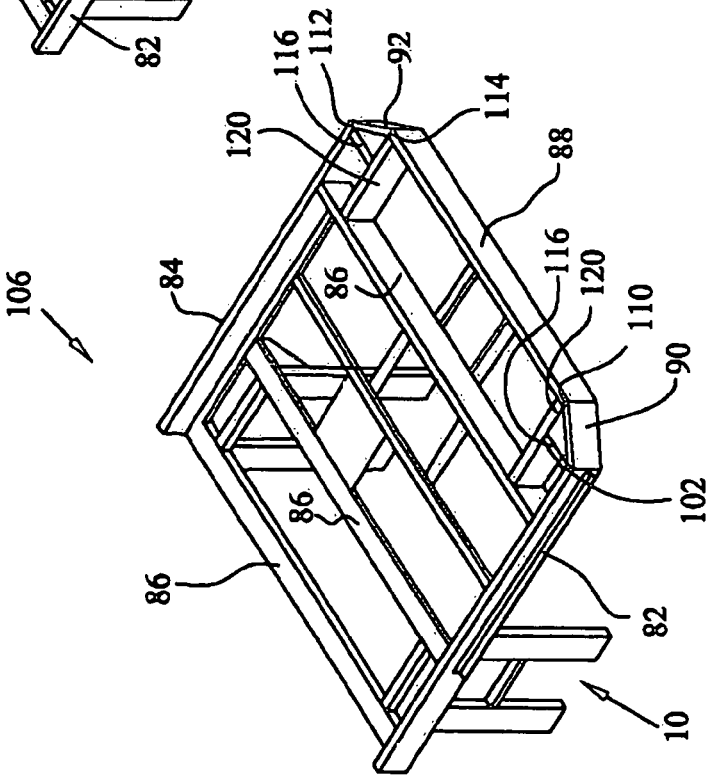
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FIG. 10

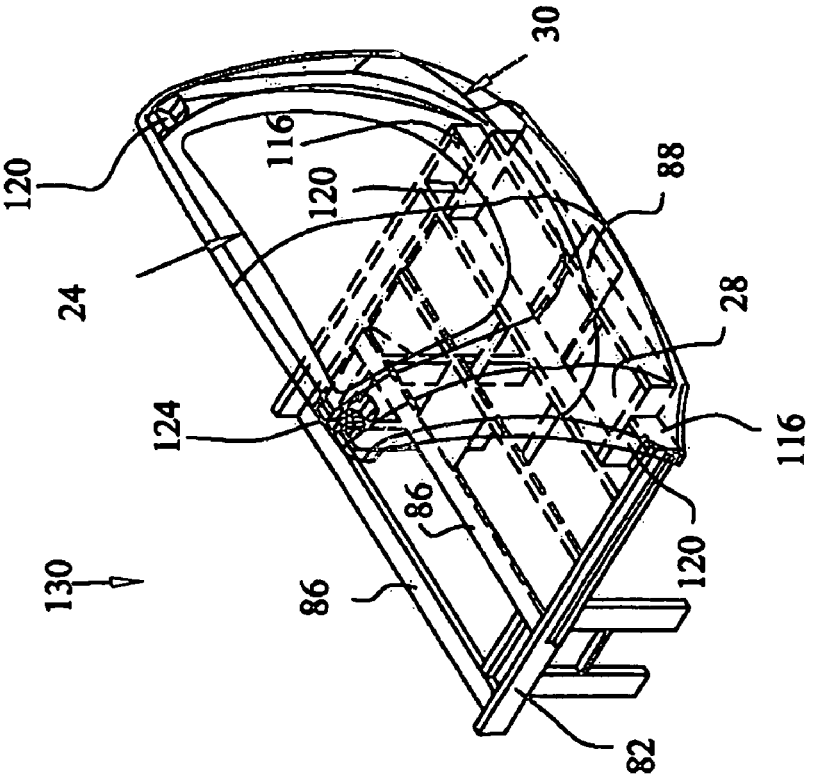
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FIG. 13

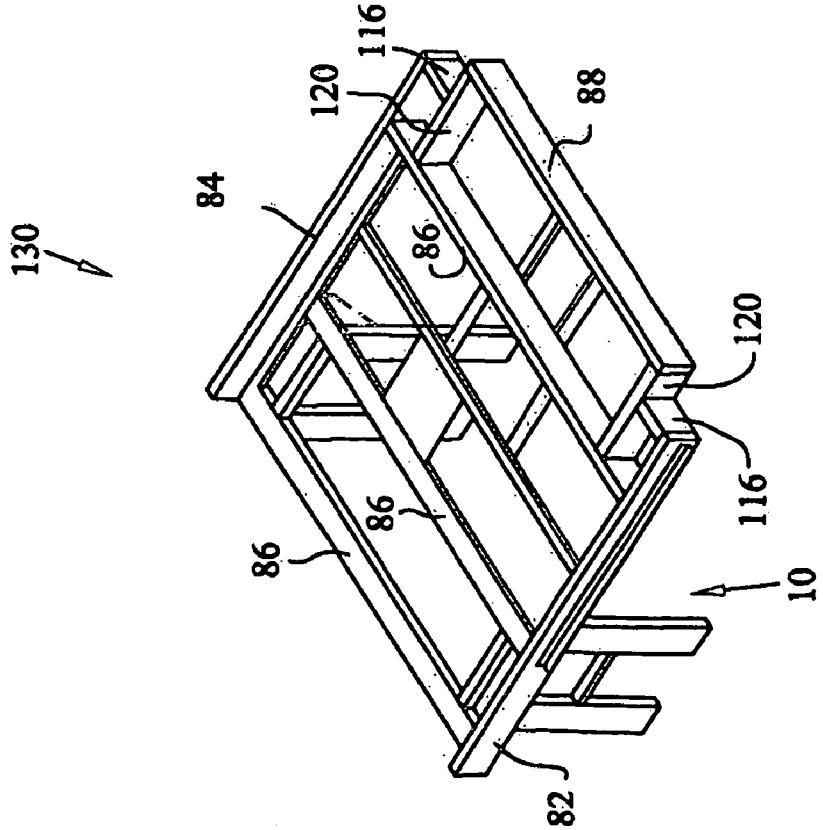
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FIG. 12

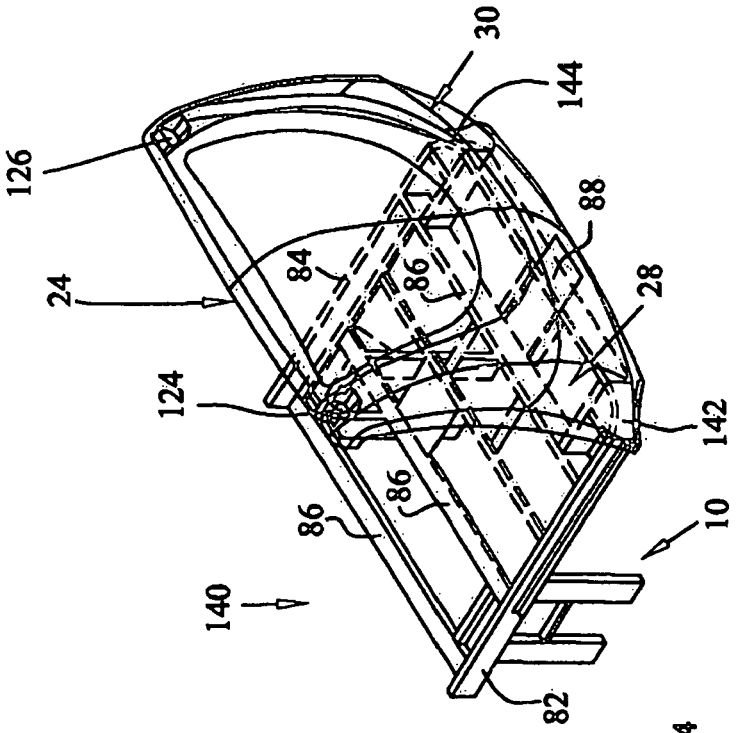
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FIG. 15

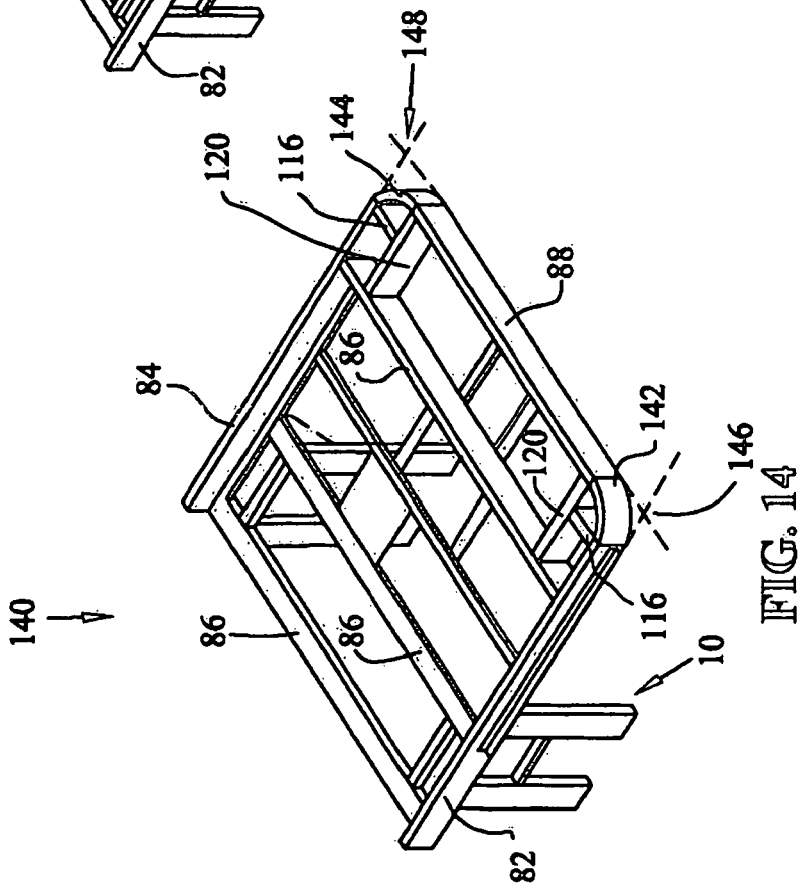
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FIG. 14

TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS

The present application is related to and claims priority to U.S. patent application Ser. No. 11/834,214, filed on Aug. 6, 2007, now U.S. Pat. No. 7,575,251, entitled TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS, which in turn claims priority from U.S. patent application Ser. No. 11/091,070, filed Mar. 28, 2005, now U.S. Pat. No. 7,278,650, entitled TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS, which in turn claims priority from U.S. Provisional Patent Application Ser. No. 60/557,302, filed on Mar. 29, 2004, entitled IMPROVED FIFTH WHEEL TRAILER. All prior applications are hereby expressly incorporated into the present application by reference.

BACKGROUND AND SUMMARY

The present disclosure relates generally to travel and fifth wheel-type trailers. In particular, the present disclosure is related to the configuration of such trailers that are hitched to, and pivotable relative to, an attached towing vehicle.

Travel trailers and fifth wheel trailers are commonly known and used as campers or used for hauling. Typically, fifth wheels are configured to be pivotably attached to pickup or similar type trucks. The bed of the pickup truck has a mating hitch attached thereto configured to receive a hitch located on the underside of the forward end of the fifth wheel. The fifth wheel often comprises an upper deck and a lower deck. The upper deck is typically located forward on the fifth wheel and is configured to extend over the rear of the pickup truck so the hitch can attach to the mating hitch on the truck's bed at a pivot location on the centerline of the trailer.

An issue that has arisen in recent years with fifth wheels, precipitated by the development and popularity of extended-cab pickup trucks. These extended-cab pickup trucks, which typically offer a second row of seating, extend the cab length often at the expense of the bed length. A consequence of this is that more pickup trucks now exist with shortened beds than in the past. Accordingly, the upper decks of conventional fifth wheels now occupy a greater portion of that shortened bed than in truck beds of the past. The less space that exists between the cab of a short bed truck and the forward end of the fifth wheel, the more impaired the turning radius of the truck can be.

Conventionally, the upper deck of a typical fifth wheel has a rectangular or parallelogram-shape footprint whose forward corner edges form right angles. The compartment extending upward therefrom is similarly cubicle and includes right-angled corner edges as well. These right-angled corner edges of the fifth wheel have a propensity to hit the rear corner of the cab of a tow vehicle if the turning radius of that vehicle becomes too great. As a result, the driver of the tow vehicle is required to either take broader turns or engage specialty hitches that extend the distance between the cab and the fifth wheel. These are not always desirable options because often there may not be available space to make a broad turn, and specialty hitches are cumbersome and expensive. Typically, these hitches are engaged before the turn and disengaged after the turn. It would, therefore, be beneficial to provide an alternative design of fifth wheel or travel trailer that is configured to increase the turning radius of the vehicle.

Accordingly, an illustrative embodiment of the present disclosure provides a travel trailer characterized by a chassis assembly coupled to a wheel assembly. A compartment is provided having at least one side wall and a forward wall. A hitch assembly is located adjacent the chassis assembly, and

the forward wall. The hitch assembly is configured to couple to a mating hitch on a towing vehicle. The travel trailer also comprises a panel located between the side and forward walls. The panel forms an angle between itself and at least the side wall that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the angle formed between the side wall and the panel reduces any right-angled attachment between the side and forward walls to improve the towing vehicle's turning radius relative to the travel trailer; the panel forms an angle between itself and forward wall that is greater than 90 degrees; the panel eliminates any right-angle attachment between the side and forward walls; and the chassis assembly comprises a recess at edges adjacent the panel.

Another illustrative embodiment of the travel trailer comprises a chassis, a wheel assembly, a hitch assembly, and an outer coupling rail. The chassis includes a front end and a rear end. The chassis also includes a front outer frame rail located substantially perpendicular to a side outer frame rail. The wheel assembly is coupled to the chassis adjacent the rear end. The hitch assembly is attached to the chassis adjacent the front end. The outer coupling rail extends between the front and side frame rails. The outer coupling rail forms an angle between itself and at least the side frame rail at a front edge of the travel trailer that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the coupling rail forming an angle between itself and the front frame rail that is greater than 90 degrees to improve the towing vehicle's turning radius relative to the travel trailer; the coupling rail eliminating a right-angle attachment between the side and front frame rails; and a compartment attached to the chassis at the front edge adjacent the outer coupling rail which comprises an inwardly oriented recess that extends from the chassis.

Another illustrative embodiment of the travel trailer comprises a chassis, a forward panel, at least one side panel, and a corner panel. The chassis assembly comprises a hitch assembly adjacent a front end of the trailer and a plurality of wheels adjacent a rear end of the trailer. The forward panel is located at the front end. The corner panel joins the forward and side panels but does not form a right-angled vertex between the forward and side panels. This allows an increased turning radius for the trailer as compared to forward and the side panels that join to form a right-angled vertex.

In the above and other illustrative embodiments, the travel trailer may also comprise: the corner panel forming a recess at a front edge of the travel trailer; the chassis assembly comprising a frame assembly having a corner rail located at a front corner of the frame that does not form a right-angled vertex at the front corner of the frame; and a compartment having right and left front corners, each of which is recessed inwardly to allow an increased turning radius for the trailer as compared to front edges having a right-angled vertex.

Another illustrative embodiment of the travel trailer comprises a chassis, a compartment, and a corner panel portion. The chassis comprises a hitch assembly adjacent a front end of the trailer and a plurality of wheels adjacent a rear end of the trailer. The compartment comprises at least a forward panel portion located at the front end and at least one side panel portion. The corner panel joins the forward and the side panels and recesses inwardly toward the interior of the compartment to allow an increased turning radius for the travel trailer as compared to forward and the side panels that join to form a right-angled vertex.

Another illustrative embodiment is a travel trailer for use with a towing vehicle. The towing vehicle has a mating hitch coupled thereto and is configured to haul the travel trailer. The

travel trailer further comprises a chassis and a hitch. The chassis itself comprises first and second longitudinally extending side frame members, forward and rearward cross-members, and a first brace. The first and second longitudinally extending side frame members are oriented substantially parallel to each other and located exteriorly on the chassis. The forward and rearward cross-members are oriented substantially perpendicular to the first and second side members. The forward cross-member is also located exteriorly on the chassis and whose end does not attach to a corresponding end of the first side member. The first brace is attached adjacent the ends of forward cross-member and the first side member, and is located exteriorly on the chassis, and is oriented non-parallel to both the forward cross-member and the first side member. The hitch is attached to a portion of the chassis and couples with the mating hitch on the towing vehicle.

In the above and other illustrative embodiments, the travel trailer may also comprise: the towing vehicle having a bed that has the mating hitch attached thereto, and wherein a portion of the chassis is located over the bed; a compartment attached to the chassis and at least one recessed corner edge located at a forward end of the trailer adjacent the first brace to allow an increased turning radius for the travel trailer; and a frame having angled corner edges adjacent the recesses at the front end of the compartment.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises, a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess is located at each corner edge of the compartment such that cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a coupling is attached to the chassis adjacent the front end. The front end of the chassis forms first and second corner edges that are recessed.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a chassis assembly, a hitch, a compartment and a cap. The chassis assembly includes front and rear ends. The hitch is attached to the chassis assembly adjacent the front end. The compartment is attached to the chassis assembly. The cap is located at the front end of the chassis and attached to the compartment. The cap has at least one front corner edge that includes a recess directed inward toward the compartment.

In the above and other illustrative embodiments, the travel trailer may also comprise: the cap further comprising a second front corner edge that also includes a recess directed inward toward the compartment; the space formed by the recesses being configured to receive a portion of the vehicle when engaged in a turn; the cap being a monolithic structure; and the cap being a plurality of structures.

Additional features and advantages of the travel trailer will become apparent to those skilled in the art upon consideration of the following detailed description of the illustrated embodiment exemplifying the best mode of carrying out the travel trailer as presently perceived.

BRIEF DESCRIPTION OF THE DRAWINGS

The present disclosure will be described hereafter with reference to the attached drawings which are given as non-limiting examples only, in which:

FIG. **1** is front perspective view of an illustrative trailer including recessed front corners according to an illustrative embodiment of the present disclosure;

FIG. **2** is a top perspective detail view of a front corner edge portion of the trailer and a rear cab portion of a tow vehicle engaged in a turn;

FIG. **3** is another top perspective detail view showing the other front corner edge portion of the trailer and the other rear cab portion of the tow vehicle engaged in a turn;

FIG. **4** is a top schematic view of an illustrative tow vehicle and a prior art trailer;

FIG. **5** is a top schematic view of the illustrative tow vehicle of FIG. **4** and a trailer according to an illustrative embodiment of the present disclosure;

FIG. **6** is a perspective view of a trailer frame according to an illustrative embodiment of the present disclosure;

FIG. **7** is a perspective view of a portion of the trailer frame of FIG. **6**;

FIG. **8** is a detail perspective view of a portion of the trailer frame about section A of FIG. **7**;

FIG. **9***a* is a top view of a portion of a prior art trailer frame;

FIG. **9***b* is a top view of a portion of the trailer frame of FIG. **6**;

FIG. **10** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **11** is a perspective view of the portion of the frame of FIG. **10** including a front cap assembly coupled thereto;

FIG. **12** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **13** is a perspective view of the portion of the frame of FIG. **12** including a front cap assembly coupled thereto;

FIG. **14** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure; and

FIG. **15** is a perspective view of the portion of the frame of FIG. **14** including a front cap assembly coupled thereto.

Corresponding reference characters indicate corresponding parts throughout the several views. The exemplification set out herein illustrates embodiments of the travel trailer, and such exemplification is not to be construed as limiting the scope of the travel trailer in any manner.

DETAILED DESCRIPTION OF THE DRAWINGS

A front perspective view of an illustrative fifth wheel or travel trailer **2** is shown in FIG. **1**. The trailer shown in this view is commonly referred to as a fifth wheel trailer. This trailer **2**, as well as other trailer designs, generally comprises a compartment **4** that sits on a frame chassis **6** (see, e.g., FIGS. **6** through **15**) which are tied to a plurality of wheels **8**. This trailer **2** includes a dual deck design having a step **10** located near the front end **12** of trailer **2**. The step **10** allows the upper deck **16** of compartment **4** to extend over the bed of a tow vehicle **14** such as a pickup truck. (See also FIG. **2**.) Attached to upper deck **16** of trailer **2** is a hitch assembly **18**. This hitch assembly **18** is located adjacent the front end **12** of trailer **2**, as well. The hitch assembly **18** is configured to engage a mating hitch assembly, typically located on bed **22** of the vehicle **14**. (See, e.g., FIG. **2**.)

The forward most end of the compartment comprises an illustrative forward end cap **24**. In this illustrative embodiment, end cap **24** comprises a front wall at the middle portion of the cap **24** referred to as forward face **26**, recessed corner edges **28**, **30** and side panels **32**, **34**. Recessed portions **28**, **30** extend upward from the lower edge of the upper deck **16** and each have a width at the lower edge that tapers with distance away from the lower edge. Illustratively, the forward face **26** is bowed outwardly from compartment **4** with its apogee located near the vertical center of the same, as shown in FIG. **1**. Also, as one illustrative embodiment, the recessed corner edges **28**, **30** follow a similar contour as forward face panel **26**. This allows a portion of the compartment to extend forward of the rear end of passenger compartment **36** of tow vehicle **14**. (See, e.g., FIG. **5**.) In addition, at least a portion of the front corners of the trailer **2** are occupied by the recessed corner edges **28**, **30**. Clearance provided by recessed corner edges **28**, **30** is particularly useful for fifth wheels and other trailers that include an upper deck **16** similar to that shown herein. Since the portion of the compartment located over planar, uppermost upper deck **16** is adjacent the rear end of passenger compartment **36** on vehicle **14**, limited distance between the two structures may exist. It is this limited distance that inhibits the turning radius of the vehicle **14**. As shown in FIG. **1**, the space formed by the inward directed, arcuate profile corners, can receive a portion of compartment **36**, thus creating enhanced turn radiuses, as compared to conventional right-angle vertex cornered edges of conventional trailers. The distinction between the two corner types is illustratively indicated by reference numeral **38**. Thus, recessed corner edges **28**, **30** are directed inwardly toward the interior of compartment **4**, the effective turn radius available for the trailer can be enhanced over conventional fifth wheel or other travel trailers having standard 90 degree corner edges.

It is appreciated that alternative embodiments of forward end cap **24** may include any number of shapes having inward directed corners. Cap **24** may also be manufactured from a plurality of panels, or may be a monolithic molded or formed structure. Illustratively, in one embodiment, forward face **26** may comprise a separate forward panel, separate recessed, and/or even separate angled panels attached thereto, along with separate side panels attached thereto. It is further appreciated that in other illustrative embodiments, the recessed corner edges can be of varying shape, depth, contour, and angle to accommodate and increase the turning radius of the attached vehicle.

A top perspective detail view of recessed corner edge **30** of trailer **2** coupled to vehicle **14** which is engaged in a turn, is shown in FIG. **2**. A cavity **42** produced by the contour of recessed corner edge **30** receives at least a portion of corner **44** of vehicle **14**. As shown in this view, mating hitch assembly **20** is attached to bed **22** of vehicle **14** and is engaged to hitch assembly **18** to pivotably attach trailer **2** to vehicle **14**. (See, also, FIG. **3**.) This view demonstrates how such a turn would not be possible without recessed corner edge **30**. Side wall **34**, if extended more forwardly on trailer **2**, along with front face **26** extending its width, a conventional right-angle corner edge would be formed that would become crushed during such a tight turn shown therein. From this view it is appreciated that the recessed corner edge **30** can be contoured as desired, so its cavity **43** receives a portion of the corner of the cab of the vehicle having any unique or conventional configuration. (See FIG. **3**.) It is contemplated herein that the invention is not limited to the specific size, shape, and contour of the recessed portion. It can further be seen from this view how the arcuate contour of forward end cap **24** can increase the amount of available space in the compartment by being able to extend over at least a portion of passenger compartment **36** of vehicle **14**. (See, also, FIG. **5**.) This may be achieved either independently or in combination with recessed corner edges **28**, **30**.

Another top perspective detail view showing an opposite turn of vehicle **14** with respect to trailer **2**, is shown in FIG. **3**. This view demonstrates how recessed corner edge **28**, similar to that shown with respect to recessed corner edge **30**, can increase the turn radius of vehicle **14**. Such a sharp turn, as depicted in this view, could not be achieved with a trailer having conventional right-angled corner edges.

To further illustrate, a top schematic view of tow vehicle **14** hitched to a prior art, conventionally shaped trailer **46**, is shown in FIG. **4**. As vehicle **14** turns in direction **48**, the corner **50** of prior art trailer **46** impacts rear corner **44** of passenger compartment **36** at a relatively shallow angle. This produces a relatively large crush zone as indicated by reference numeral **52** at impact **54**. Because the forward corners of prior art trailer **46** include corners having right-angled edges as indicated by reference numerals **50** and **56**, the turn radius is relatively small, as indicated by reference numeral **58**.

In contrast, as shown in FIG. **5**, the same vehicle **14** is shown making a turn with an illustrative embodiment of trailer **2** hitched thereto. As shown, when vehicle **14** turns in direction **48**, the recessed corner edge **30** provides enough clearance to create a relatively large turn radius, indicated by reference numeral **60**, and has a relatively small crush zone **62** at impact point **64**. As is also shown, the recessed portion **30** lies in a first plane and faces away from the pivot location of mating hitch assembly **20** in one direction and recessed portion **28** lies in a second plane and faces away from the pivot location in another direction. It is also appreciated from this view how the illustrative arcuate shape of forward end cap **24**, as described with respect to FIG. **1**, may enhance the available space within compartment **4**. In this view it is shown that the forward edge **66** is recessed towards the interior of compartment **4** relative to the forward most point of forward end cap **24**. In one illustrative embodiment this combination between the arcuate shape of forward end cap **24** and the recessed positioning of forward edge **66** of chassis **6** provides a compromise between increased interior space of compartment **4** and the enhanced turning radius as shown.

A perspective view of an illustrative embodiment of chassis **6** is shown in FIG. **6**. Chassis **6** is illustratively a frame that the flooring and compartment are built upon. Such framing includes side frame members **68**, **70** extending longitudinal from front to rear and are joined by additional side frame members **72**, **74**. In this illustrative embodiment, cross beams **76** extend between the side frame members **68** through **74**. Shown in this illustrative embodiment are also slide-out frame members **78** and **80**. As discussed with respect to FIG. **1**, this trailer includes a step **10** that provides the upper deck **16**, herein formed on the chassis by side frame members **82**, **84** and structurally secured by cross beams **86**. As shown herein, side frame members **82**, **84** do not extend and attach directly to forward edge member or beam **88**. Rather, angled braces **90** and **92** extend between frame members **82**, **84** and forward edge beam **88** respectively, as shown herein. Angled braces **90**, **92**, thus, effectively eliminate the right-angled corner edges known to inhibit the turning radius of the vehicle relative to the trailer. It is contemplated that the precise angle formed between, for example, frame members **82** and angled brace **90**, can be of any angle to allow a recess to form. As illustratively shown herein, the angle formed between the two structures is greater than 90 degrees. The same is illustratively the case with the angle between forward edge beam **88** and

both angled braces **90**, **92** as shown herein. Also shown are illustrative forward brace members **95**, **96** which serve to strengthen chassis **6**.

A perspective view of a portion of chassis **6** is shown in FIG. **7**. Specifically, shown is the upper deck portion **16** which includes side frame members **82**, **84**, and cross beams **86**. Forward edge beam **88** is shown attached to angled braces **90**, **92**, which are themselves attached to side frame members **82**, **84**, respectively. A detail view of a forward corner of upper deck **16** is shown in FIG. **8**. This view further illustrates the attachment of angled brace **90** forward edge beam **88**, and side frame member **82**. It can be appreciated from this view how beam **88** and side frame member **82** do not directly attach, thus eliminating the right-angle corner edge that would otherwise be formed by their attachment.

Top views of the upper deck of the travel trailer are shown in FIGS. **9***a* and *b*. Specifically, FIG. **9***a* is a prior art version of such an upper deck, whereas FIG. **9***b* depicts upper deck **16** as discussed with respect to FIGS. **6** through **8**. Comparing the structure of **9***a* to the structure of **9***b* much is similar except for the forward corners and the forward edge beams. For example, the prior art upper deck **94** uses side frame members **96**, **98** to attach to forward edge beam **100** to form corner right-angled edges **50**, **56**. (See, also, FIG. **4**.) It is these corner edges that can limit the turning radius of vehicle **14** for the reasons previously discussed. By comparison, such corner edges have been removed from upper deck **16**, as indicated by reference numerals **106**, **104** in FIG. **9***b*.

Perspective views of another illustrative embodiment of an upper deck frame **106** are shown in FIGS. **10** and **11**. As shown in FIG. **10**, many of the side frame members **82**, **84**, as well as cross beams **86**, are the same or similar to that shown in the previous embodiments. Furthermore, forward edge beam **88** is also positioned in a comparable location as prior embodiments. This illustrative embodiment differs from the prior embodiments from the perspective that angled braces **90**, **92** are attached to the ends of frame members and beams **82**, **88** and **84**, **88**, respectively. For example, angled brace **90** is attached to the terminus **108** of side frame member **82**. Similarly, angled brace **90** is attached to terminus **110** of forward edge beam **88**. Angled brace **92** follows suit by attaching to side frame member **84** at terminus **112** and to forward edge beam **88** at terminus **114**. In this embodiment cross beams **116** and **120** illustratively provide structural support to the forward corners.

The perspective view of upper deck frame **106** in FIG. **11** shows an illustrative embodiment of forward end cap **24** attached thereto. The angled braces **90**, **92** accommodate the recessed corner edges **28**, **30**, as previously discussed. As shown, the recessed corner edges **28**, **30**, which constitute lower corner portions of the cap **24** located at lower junctures connecting lower portions of the side walls and the front wall of the cap **24**, are recessed inwardly (as described above) with respect to upper corner portions of the cap **24** located at upper junctures connecting upper portions of the side walls and the front wall of the cap **24**. It is appreciated that the recessed corner edges may follow the contour of braces **90**, **92**, or they may, as shown herein, form a differently shaped recessed cavity. Further shown in this view are illustrative attachments **124**, **126** which are configured to be used to attach end cap **24** with compartment **4**. It is appreciated, however, that other means of attachment and/or sealing can be employed.

Perspective views of another illustrative embodiment of upper deck **130** of a trailer are shown in FIGS. **12** and **13**. As shown in FIG. **12**, upper deck **130** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is that angled braces **90**, **92** are removed completely which illustratively provides an even deeper recess within the forward corners of the deck **130**. As shown, cross beams **116**, **120** serve as the outer structure of deck **130** at the forward corners. Although cross beam **116** forms a right-angle attachment with side frame member **82**, and cross beam **120** does the same with forward edge beam **88**, frame member **82** does not attach to forward edge beam **88** to form a right-angled corner edge as disclosed in the prior art. Rather the right angle attachments disclosed in this illustrative embodiment are directed inwardly toward the interior of compartment **4**. Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **130** in FIG. **13**. It is, again, appreciated that the recessed corner edges can be of any useful depth and may be formed to conform to the shape of the cavities created by cross beams **116**, **120**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Perspective views of another illustrative embodiment of upper deck **140** of a trailer are shown in FIGS. **14** and **15**. As shown in FIG. **14**, upper deck **140** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is arcuate braces **142**, **144**. As shown, cross beams **116** and **120** still serve as structural supports adjacent the forward corners. Arcuate braces **142**, **144**, however, serve as the outer frame members at the forward corners, each attached to their respective frame members **82**, **84**, and both attached to forward edge beam **88**. The forward corners are still recessed as indicated by reference numerals **146**, **148** which depict conventional forward frame corners. (See, also, FIG. **9***a*.) Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **140** in FIG. **15**. It is, again, appreciated that the recessed corner edges **28**, **30** can be of any useful depth and may be configured to conform to the shape of the cavities created by arcuate braces **142**, **144**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Although the present disclosure has been described with reference to particular means, materials and embodiments, from the foregoing description, one skilled in the art can easily ascertain the essential characteristics of the present disclosure and various changes and modifications may be made to adapt the various uses and characteristics without departing from the spirit and scope of the present invention as set forth in the following claims.

What is claimed is:

1. A fifth wheel travel trailer for use with a pickup truck as a towing vehicle, the pickup truck having a bed with a mating hitch and a cab, the travel trailer including:

a chassis having a front end;

a hitch attached to the chassis adjacent the front end and configured to engage the mating hitch at a pivot location; and

a compartment having an upper deck and a pair of outer wall recessed portions located adjacent a front of the upper deck entirely rearward of the pivot location to provide clearance for a portion of the cab so as to permit the pickup truck to make a tighter turn without the cab striking the travel trailer.

2. The travel trailer of claim **1**, wherein the recessed portions extend downward and inward toward the compartment.

3. The travel trailer of claim **1**, wherein each of the recessed portions is bounded by a planar panel.

4. The travel trailer of claim 1, wherein the recessed portions are connected to one another by a middle portion which is larger than each of the recessed portions.

5. The travel trailer of claim 1, wherein one recessed portion faces away from the pivot location in a first direction and the other recessed portion faces away from the pivot location in a second direction that is different from the first direction.

6. The travel trailer of claim 1, wherein each of the recessed portions has a width at an edge of the upper deck that tapers with distance away from the edge.

7. The travel trailer of claim 1, wherein one recessed portion lies substantially in a first plane and the other recessed portion lies substantially in a second plane.

8. A fifth wheel travel trailer, including:

a compartment having a front end, a rear end, a floor and a single-level, planar uppermost deck located at the front end at a position higher than the floor, the uppermost deck having a forward edge;

an outer front wall and an outer first side wall surrounding at least a portion of the uppermost deck and defining a corner;

a hitch connected to the uppermost deck at a location at a position higher than the floor, the hitch being configured to couple to a mating hitch on a towing vehicle; and

a first panel located between the first side wall and the front wall, wherein the first panel forms a recess directed inwardly toward the interior of the compartment and is disposed rearward of the forward edge of the uppermost deck, the recess providing clearance for a portion of the towing vehicle so as to permit the towing vehicle to make a tighter turn without striking the travel trailer.

9. The travel trailer of claim 8, wherein the recess is formed in a portion of the corner.

10. The travel trailer of claim 8, wherein the recess is formed in a portion of the corner adjacent the uppermost deck.

11. The travel trailer of claim 8, wherein the first panel extends downward and inward from the corner.

12. The travel trailer of claim 8, wherein the first panel is planar.

13. The travel trailer of claim 8, wherein the first panel forms an angle between itself and the first side wall that is greater than 90 degrees.

14. The travel trailer of claim 8, wherein the first panel forms an angle between itself and the front wall that is greater than 90 degrees.

15. The travel trailer of claim 8, wherein the first panel extends upward from the uppermost deck.

16. The travel trailer of claim 8, further including a second side wall parallel to the first side wall and a second panel located between the second side wall and the front wall, the second panel forming a recess directed inwardly toward the interior of the compartment and disposed rearward of the forward edge of the uppermost deck.

17. The travel trailer of claim 16, wherein the front wall extends upward from the uppermost deck between the first panel and the second panel.

18. The travel trailer of claim 16, wherein the first and second panels face away from a centerline of the trailer in different directions.

19. A travel trailer towable by a pickup truck including a bed and a cab, the travel trailer including:

a compartment including a front end, a rear end, a floor and a deck located near the front end at a position higher than the floor, the deck having a forward edge;

an outer forward wall having a width at an interface with the forward edge;

an outer side wall; and

a panel forming a recess located between the forward wall and the side wall substantially rearward of the forward edge and having a width that is less than the width of the forward wall;

wherein the recess provides clearance for the pickup truck in order to allow the pickup truck to make a tighter turn without striking the trailer.

20. The travel trailer as set forth in claim 19 wherein the deck is configured to extend over at least a portion of the bed of the pickup truck when the trailer is towed by the pickup truck.

21. The travel trailer as set forth in claim 19 wherein the travel trailer is a fifth wheel travel trailer.

22. The travel trailer as set forth in claim 19 recess generally extends downward and inward from the forward wall.

23. The travel trailer as set forth in claim 19 wherein the panel is planar.

24. The travel trailer as set forth in claim 19 wherein the angle between the panel and the side wall is greater than 90 degrees.

25. The travel trailer as set forth in claim 19 wherein the angle between the panel and the forward wall is greater than 90 degrees.

26. The travel trailer as set forth in claim 19 further including a hitch connected to the deck.

27. The travel trailer as set forth in claim 26 further including a chassis attached to the compartment, wherein the hitch is attached to the chassis.

28. The travel trailer as set forth in claim 26 wherein the hitch is configured to couple to a mating hitch located in the bed of the pickup truck.

29. The travel trailer as set forth in claim 19, wherein the panel includes an apex adjacent the corner.

30. The travel trailer of claim 19, wherein the width of the panel is substantially less than one third an overall width of the deck.

31. The travel trailer of claim 19, wherein the width of the panel is less than one fourth an overall width of the deck.

32. The travel trailer of claim 19 wherein the panel extends upward from the deck.

33. The travel trailer of claim 32, wherein a width of the panel tapers with distance away from the deck.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,878,545 B2
APPLICATION NO. : 12/315894
DATED : February 1, 2011
INVENTOR(S) : Rhymer et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification

Column 1, line 4, "related to and claims priority to" should read --a continuation of--.

Column 1, line 8, "in turn claims priority from" should read --is a continuation of--.

Signed and Sealed this
Twenty-fifth Day of March, 2014

Michelle K. Lee

Michelle K. Lee
Deputy Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 7,878,545 B2
APPLICATION NO. : 12/315894
DATED : February 1, 2011
INVENTOR(S) : John Mitchell Rhymer, Douglas Martin Lantz and Scott James Tuttle

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Col. 10, Line 26, Claim 22, "Claim 19 recess generally" should read --Claim 19 wherein the recess generally--.

Signed and Sealed this
Eleventh Day of November, 2014

Michelle K. Lee

Michelle K. Lee
Deputy Director of the United States Patent and Trademark Office

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(12) **United States Patent**
Rhymer et al.

(10) **Patent No.: US 8,162,352 B2**
(45) **Date of Patent: Apr. 24, 2012**

(54) **TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS**

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(73) Assignee: **Heartland Recreational Vehicles, LLC**, Elkhart, IN (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(52) **U.S. Cl.** **280/789**; 280/441.2; 280/783; 296/168; 296/24.31; 296/182.1; 296/186.1

(58) **Field of Classification Search** 280/441.2, 280/783, 789; 296/168, 24.31, 182.1, 186.1
See application file for complete search history.

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(57) **ABSTRACT**

A travel trailer configured to be coupled to and towed by a vehicle is provided. The travel trailer has a compartment that is attached to a chassis which includes a front end and a rear end. A plurality of wheels are attached to the chassis adjacent the rear end, and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess, directed inwardly toward the interior of the compartment, is located at each corner of the compartment. Cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

47 Claims, 11 Drawing Sheets

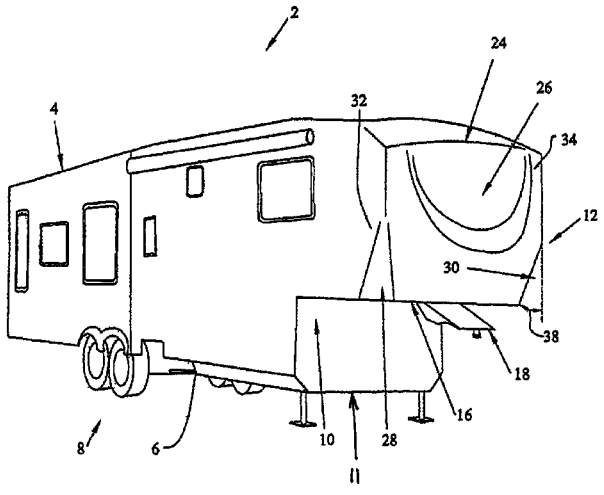

EXHIBIT 3

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Exhibit 4, Unsigned Aug. 29, 2008 letter to G. Gallagher from R. Fountain.
Exhibit 5, Unsigned Oct. 2, 2008 letter to G. Gallagher from R. Fountain.
Exhibit 6, Heartland's Information Disclosure Statement Letter of Jun. 23, 2005 to USPTO.
Exhibit 7, Heartland's Information Disclosure Statement Form of Dec. 5, 2008.
Exhibit 8, USPTO Interview Summary, Dec. 4, 2008, page 2.
Exhibit 9, Heartland's Information Disclosure Statement Letter of Dec. 5, 2008 to USPTO.
Exhibit 10, Heartland's Remarks section of Amendment After Final of Dec. 5, 2008.
Exhibit 11, USPTO Interview Summary, page 3 , Jan. 12, 2009.

Exhibit 12, USPTO Interview Summary, page 4, Jan. 12, 2009.
Exhibit 1, Eliminator color photos, 14 pages, date unknown.
Exhibit 2, Wheelbynet.com printout, New 2006 Forest River Eliminator w/Living Quarters Toy Haulers, Sep. 2, 2008, 2 pages.
Exhibit 3, Racingjunk.com printout, Race Ads/For Sale: 2006 32' Eliminator SS Loaded with A/C, Sep. 2, 2008, 3 pages.
Exhibit 4, Forest River, Inc. invoices for 8.5×48 Eliminator Gooseneck—Order date 2000, 3 pages.
Exhibit 5, Peter J. Liegl letter to Gerard T. Gallagher dated Jul. 11, 2005, 1 page.
Exhibit 6, Ryan M. Fountain letter to Gerard T. Gallagher dated Feb. 12, 2007, 1 page.
Exhibit 7, Ryan M. Fountain letter to Gerard T. Gallagher dated Aug. 29, 2008, 3 pages.
Exhibit 8, Ryan M. Fountain letter to Gerard T. Gallagher dated Oct. 2, 2008, 3 pages.
Exhibit 9, Forest River, Inc. Answer, Defenses, and Counterclaims, Case 3:08-cv-00490-RLM-CAN (*Heartland Recreational Vehicles, LLC* v. *Forest River, Inc.*), filed Nov. 17, 2008.
Exhibit 10, Roadmaster full print, 1 page, order date Jan. 18, 2002.
Exhibit 11, Cherokee color photo—paragraph 37 of Answer, 1 page, date unknown.
Exhibit 12, Cherokee yin plate (color photo)—paragraph 38 of Answer, 1 page, date unknown.
Schiller Trailer, 21 color copies of photographs (prior art to the present application).
Crown Imperial (Holiday Rambler), 3 color copies of photographs (prior art to the present application).
Photographs of Prior Art, Holiday'Rambler Trailer, taken Dec. 9, 2011 at 11558 SR 933, Osceola, Indiana.
Deposition of Michael Karl Schiller dated Sep. 16, 2011 (66 pages), with exhibits (47 pages.).

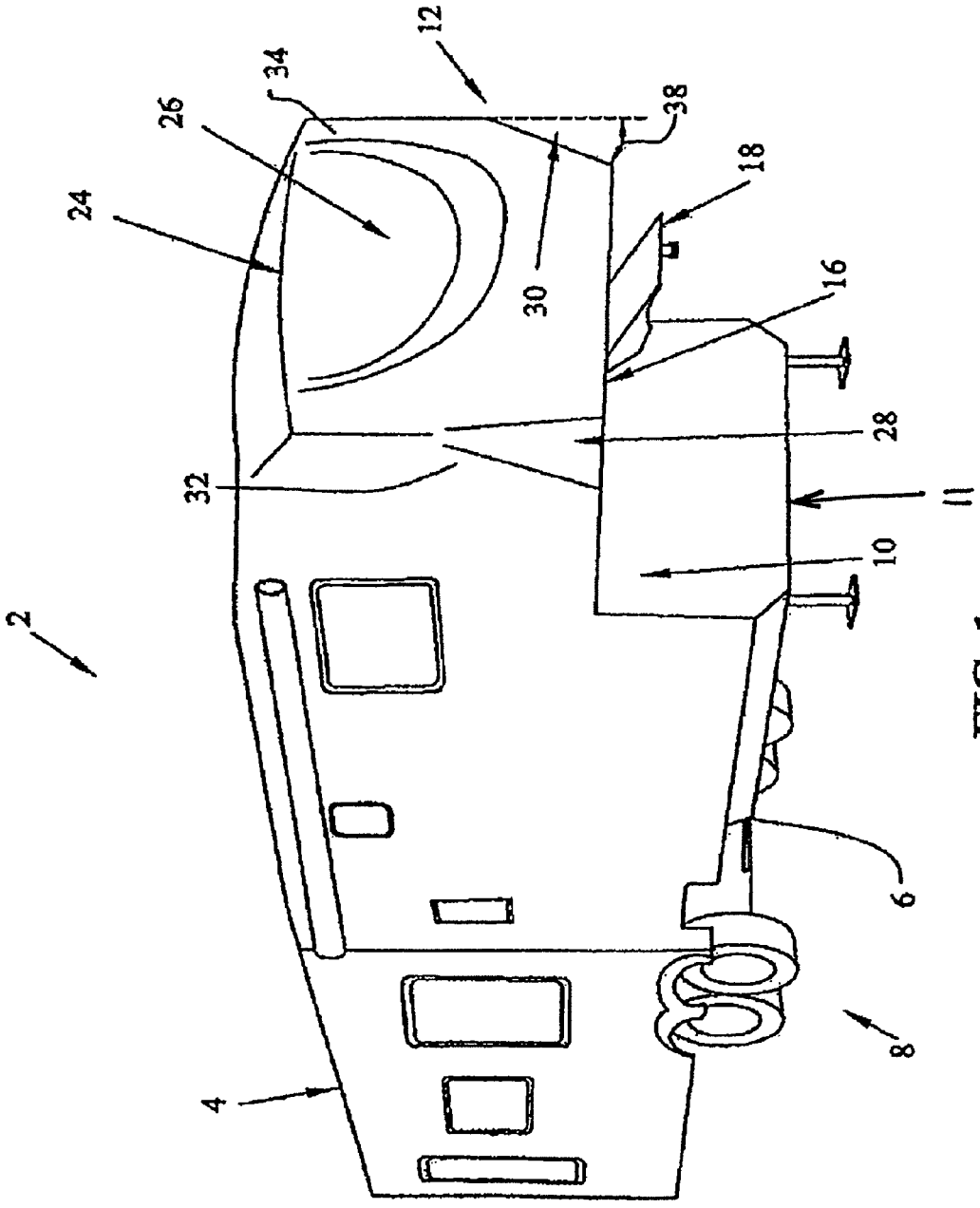

FIG. 1

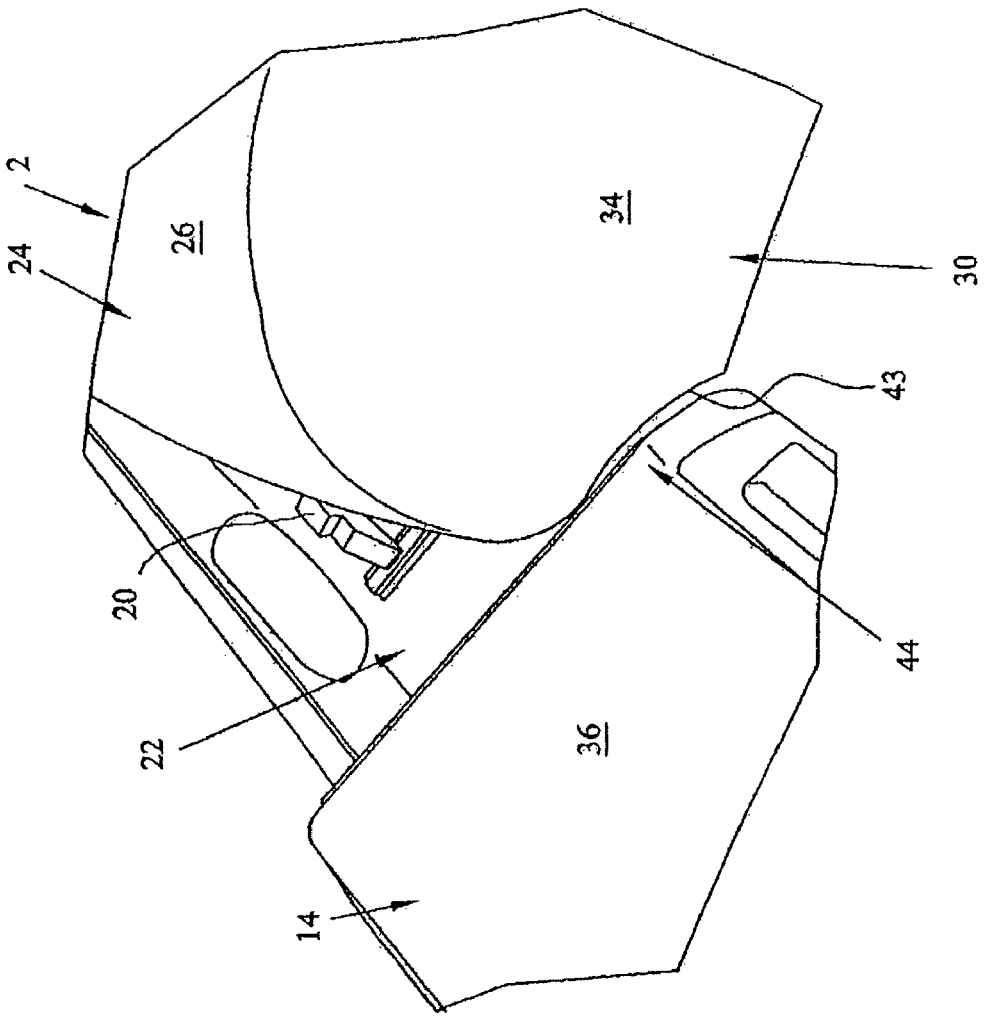

FIG. 2

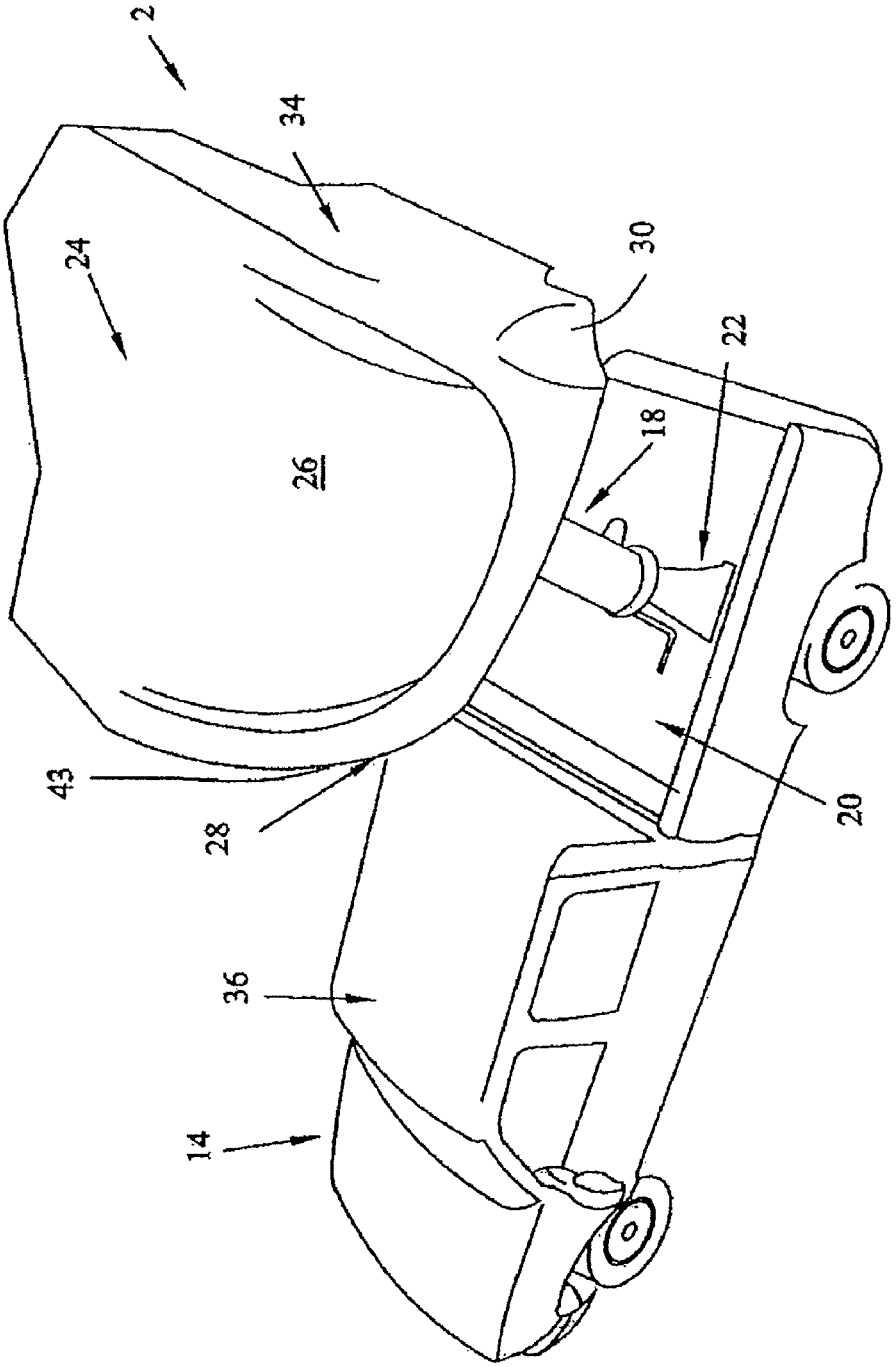

FIG. 3

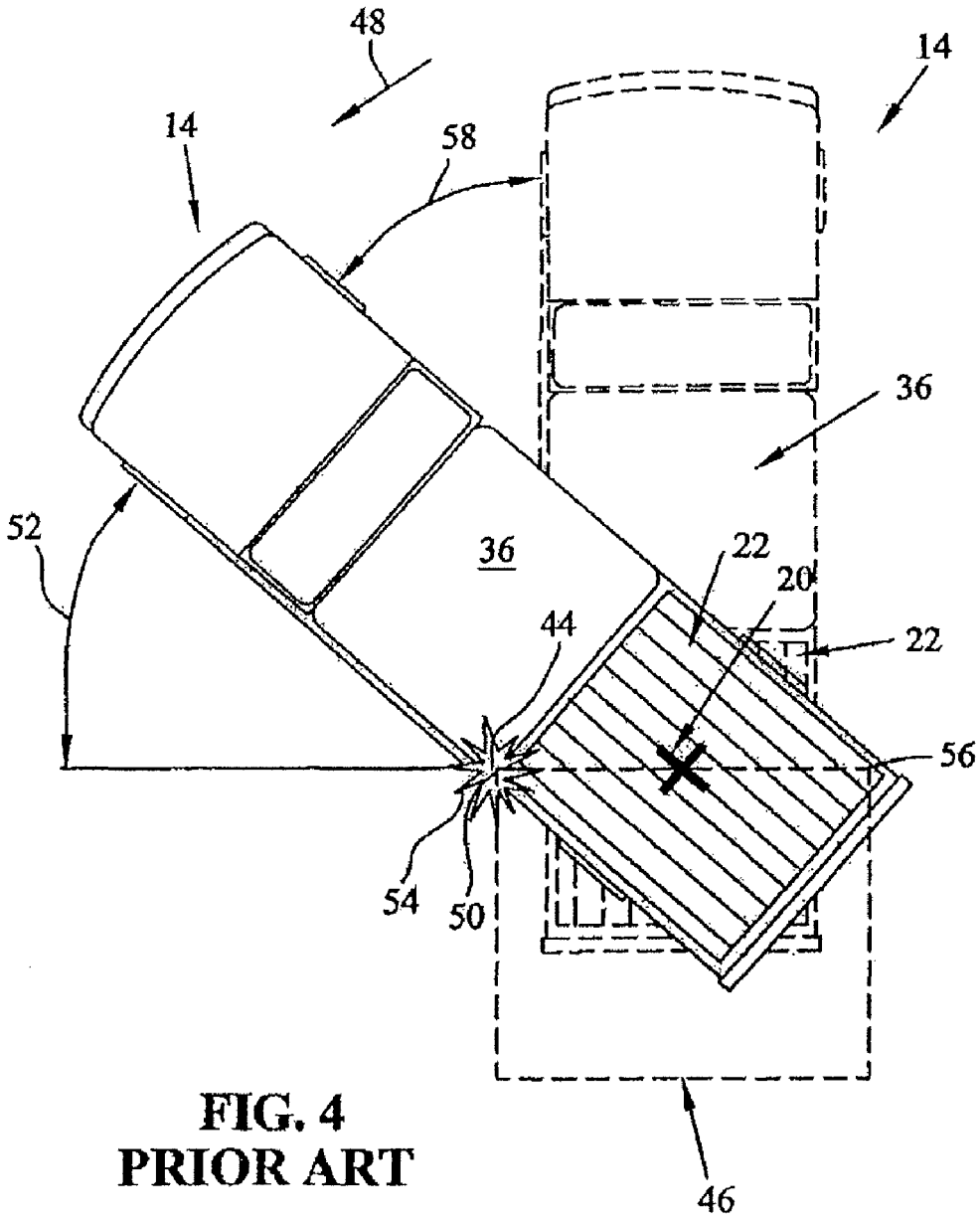

FIG. 4
PRIOR ART

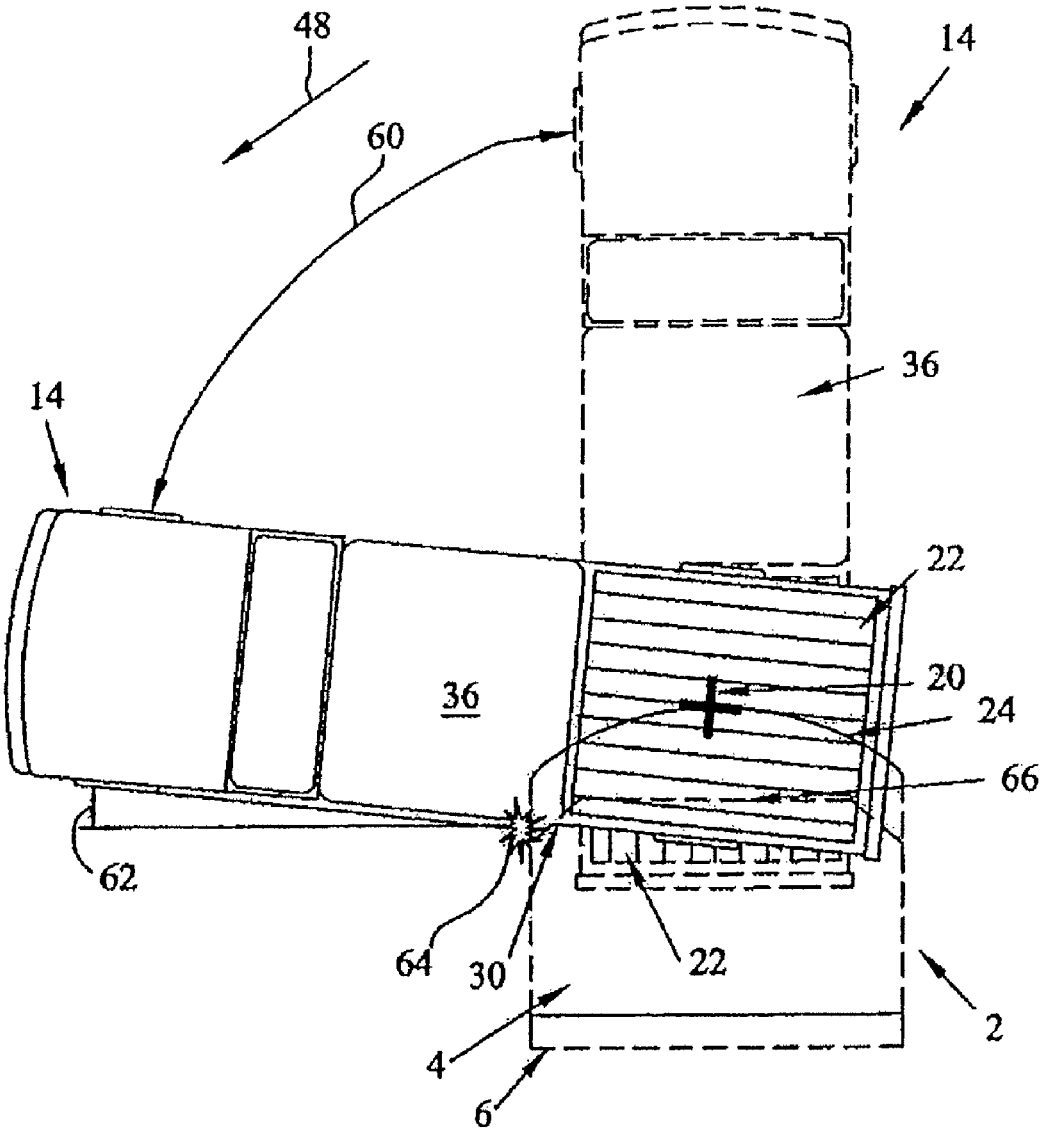

FIG. 5

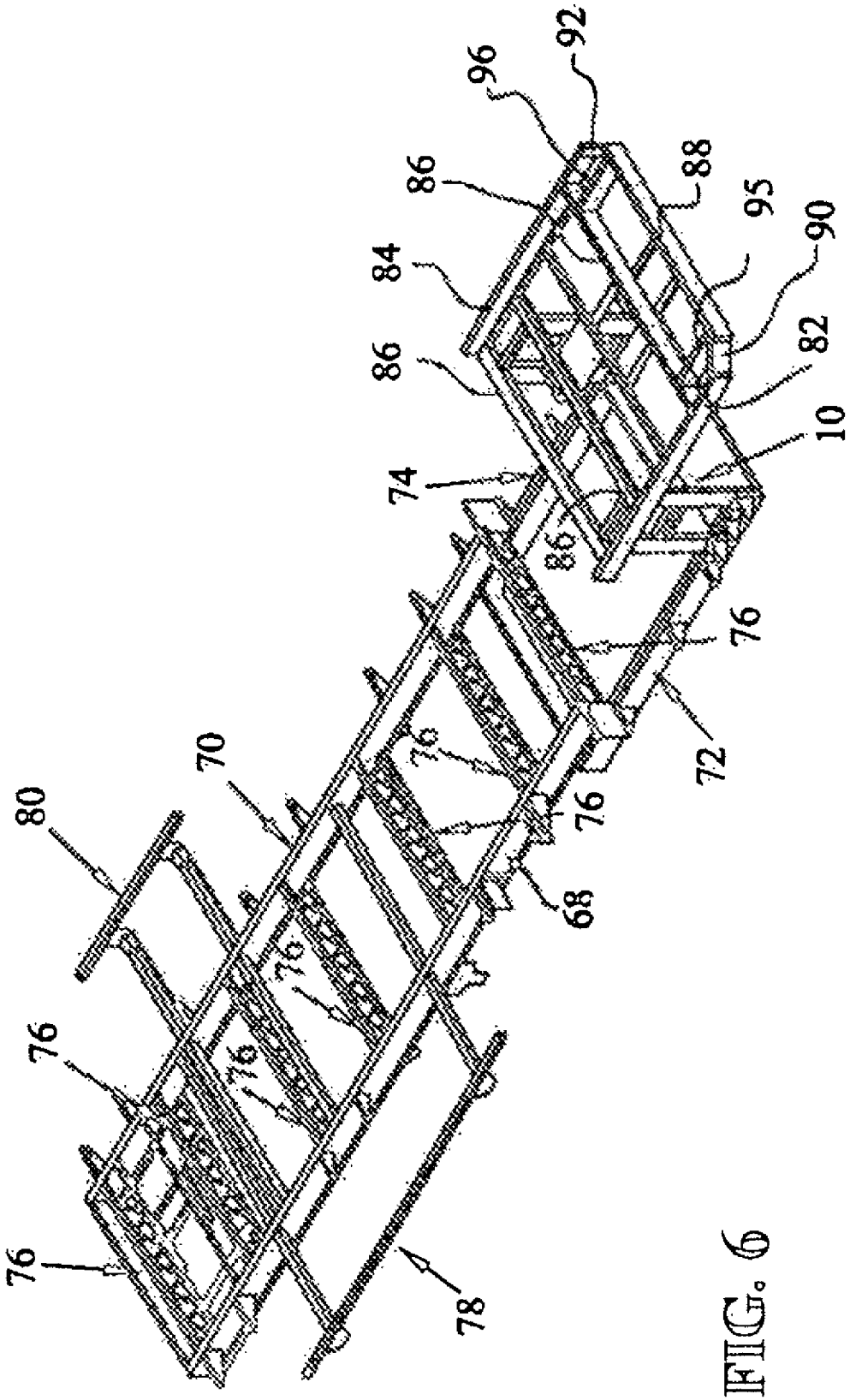

FIG. 6

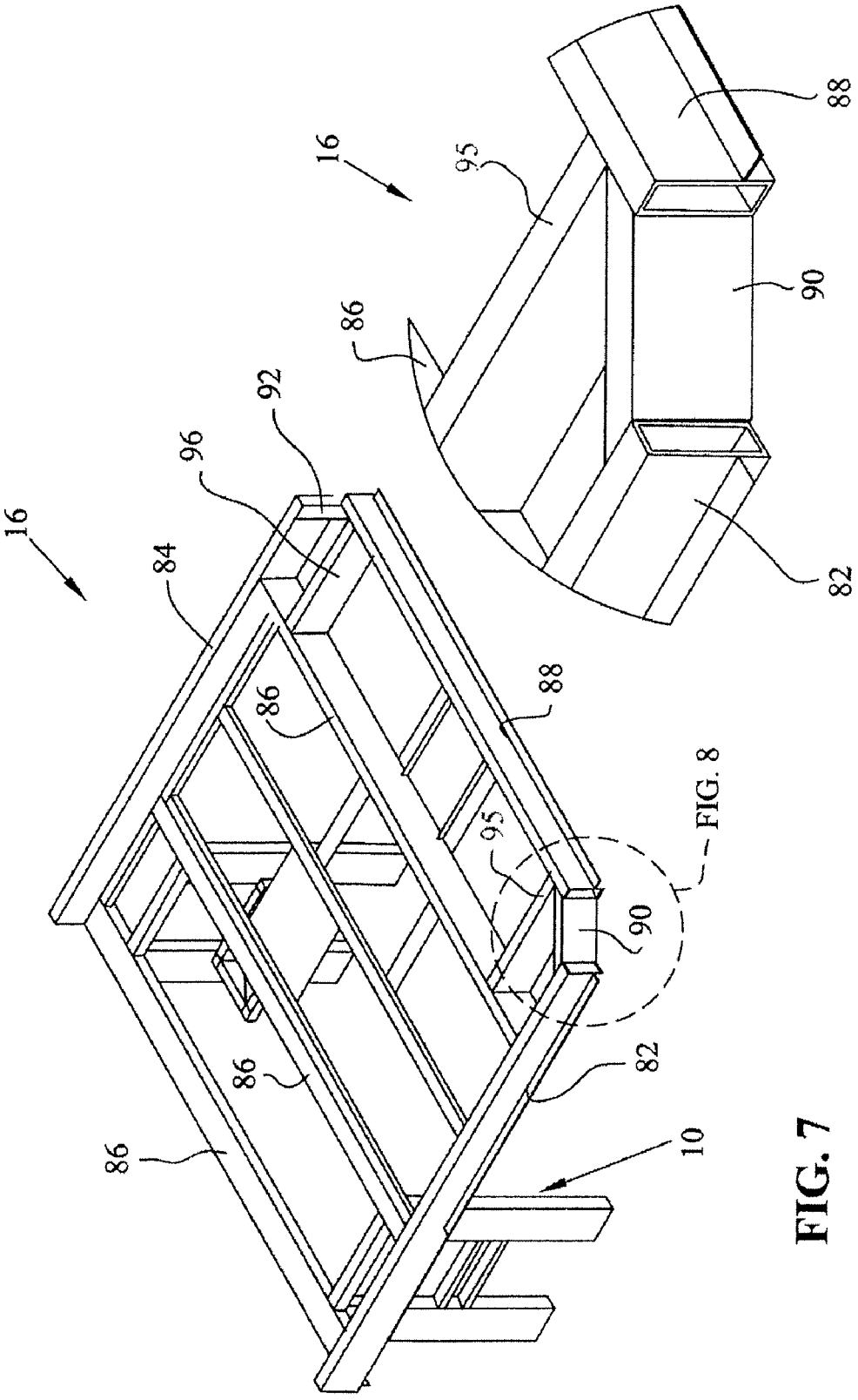

FIG. 7

FIG. 8

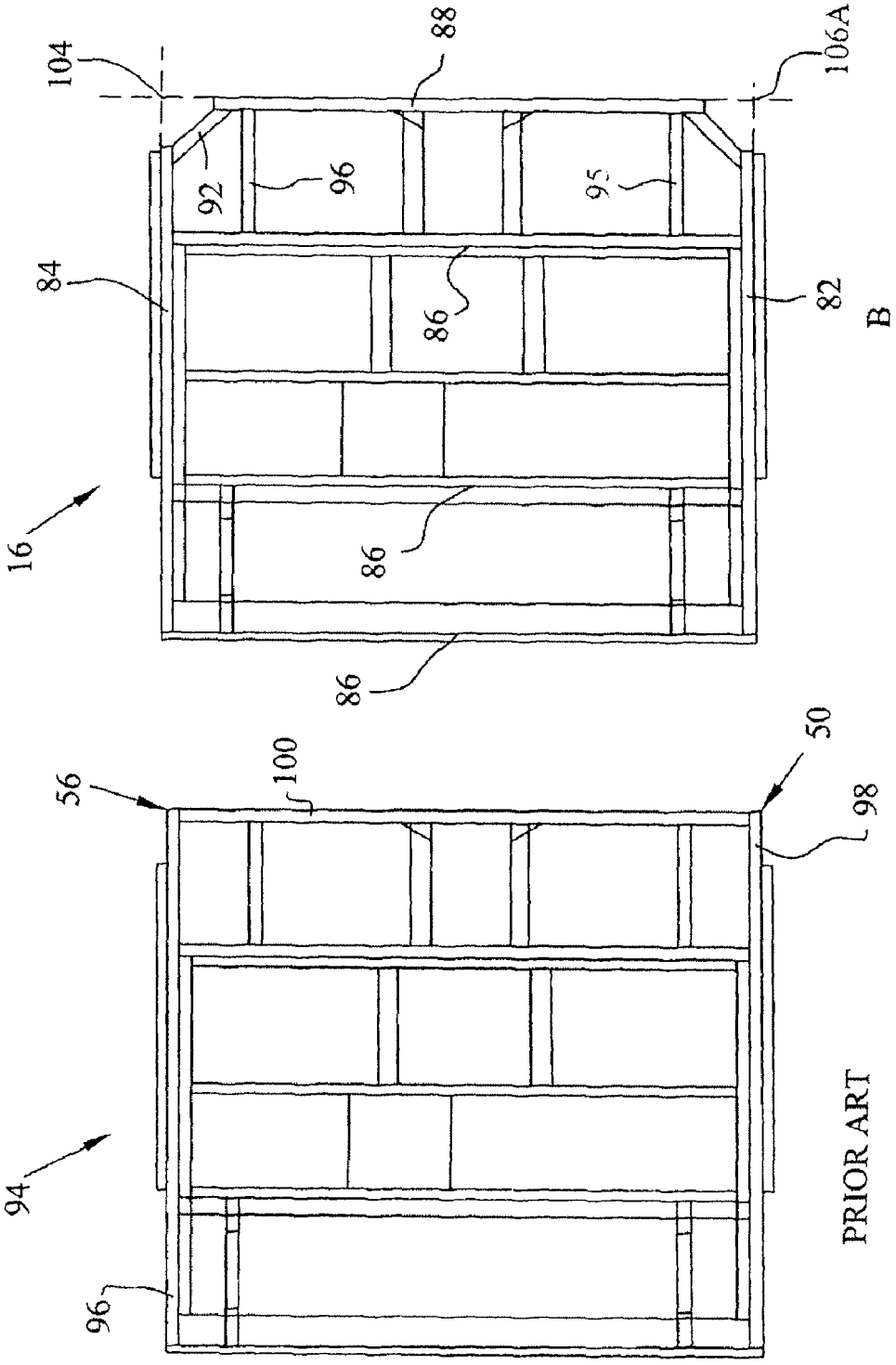
104
88
106A
92
96
95
84
86
82
B
16
86
86
56
100
50
98
94
96
PRIOR ART
A

FIG. 9

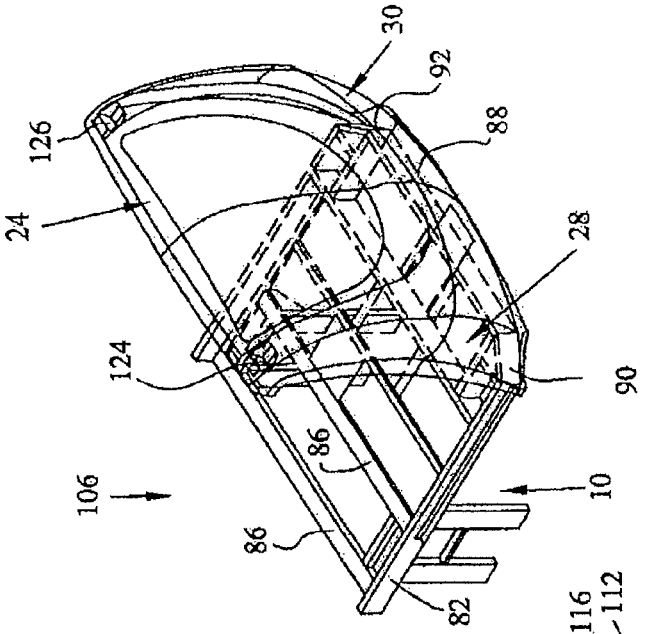
30
92
88
126
24
28
124
90
86
106
10
86
82

FIG. 11

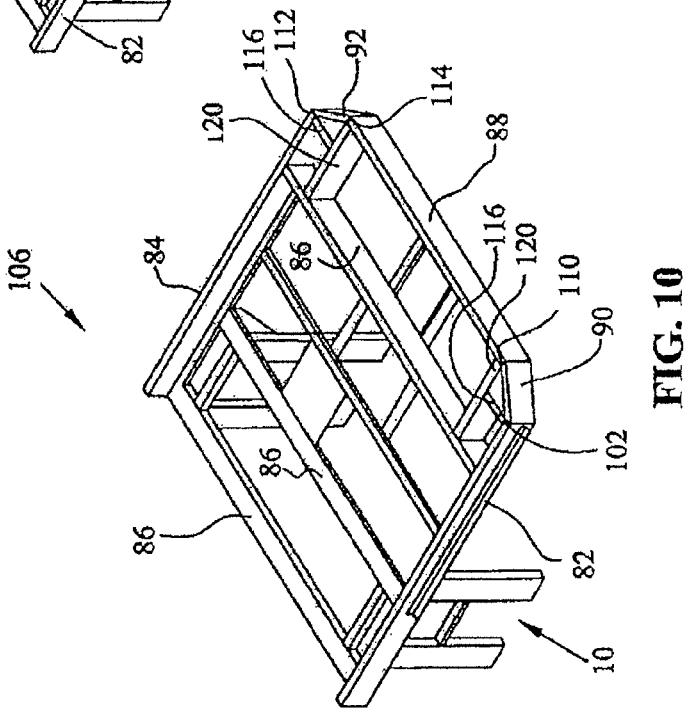
116
112
92
114
120
88
106
84
86
116
120
110
90
102
86
86
82
10

FIG. 10

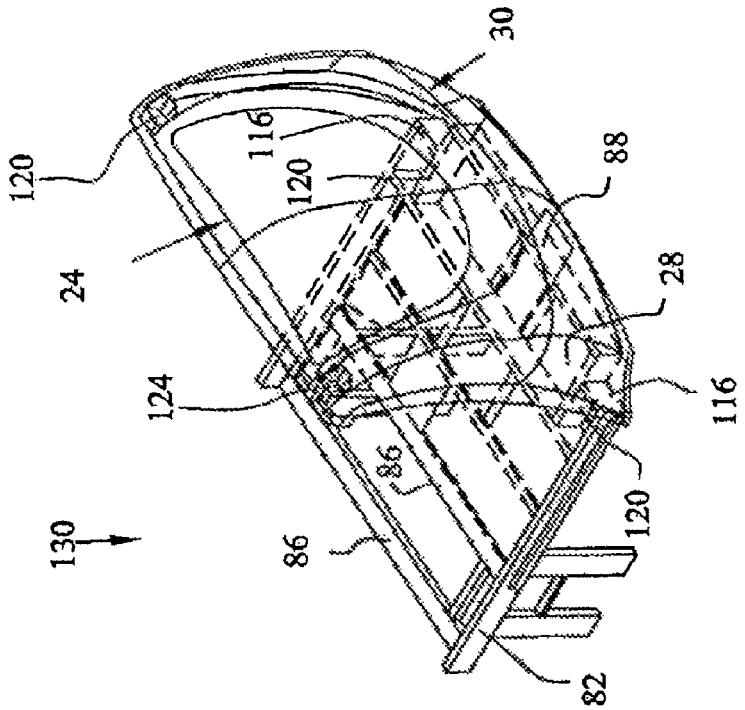
30
120
116
120
88
24
28
124
116
86
120
130
86
82

FIG. 13

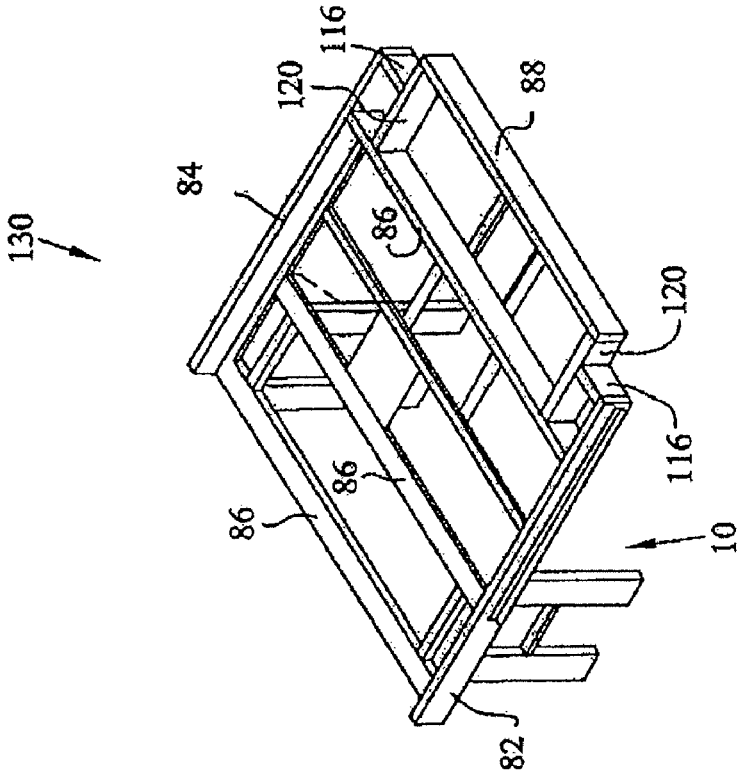
116
120
88
84
130
86
120
116
86
86
10
82

FIG. 12

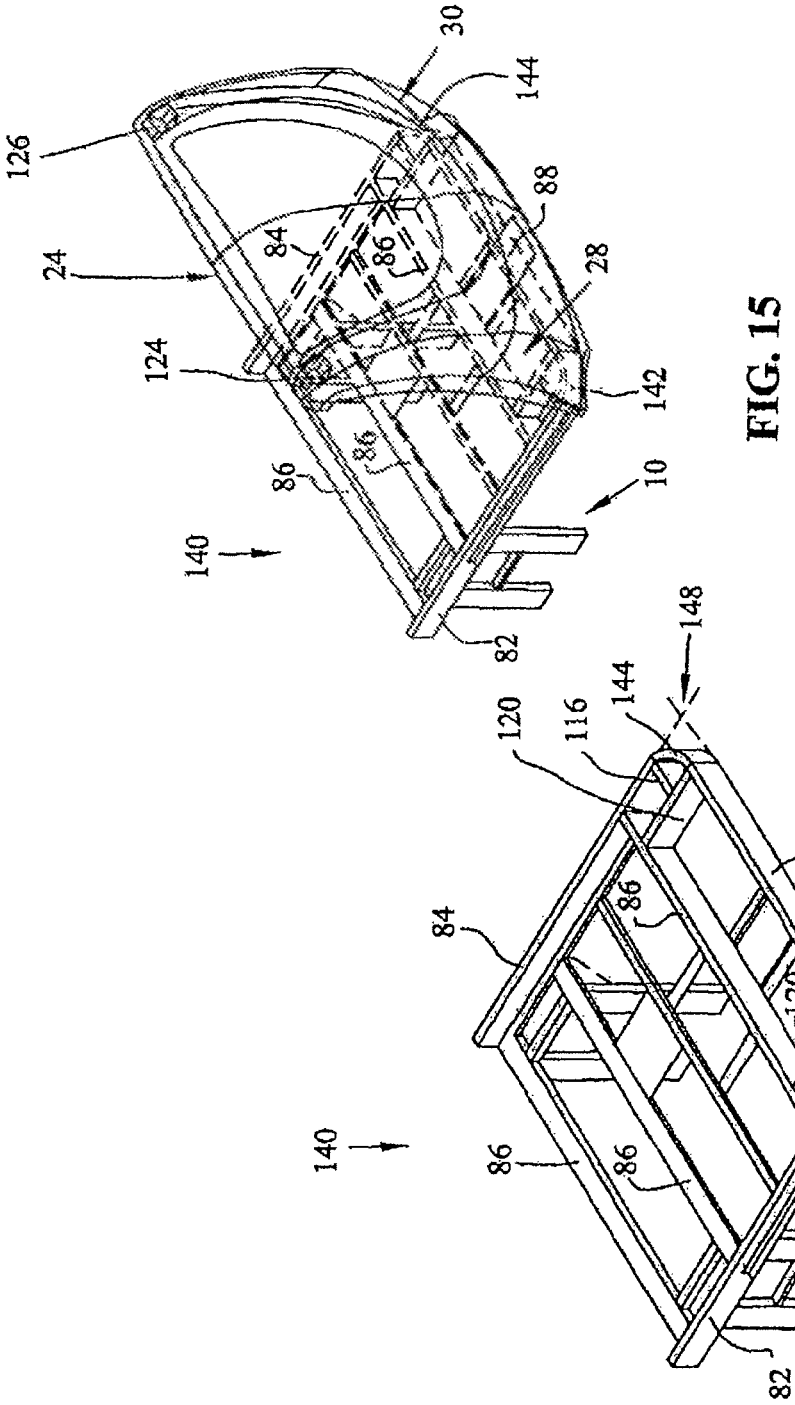
30
144
126
88
84
86
28
24
124
142
86
10
140
82
148
120
116
144
88
84
86
142
120
146
140
86
86
116
10
82

FIG. 15

FIG. 14

TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS

The present application is related to and claims priority to U.S. patent application Ser. No. 12/315,894, filed on Dec. 8, 2008, now U.S. Pat. No. 7,878,545, entitled TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS, which in turn claims priority from U.S. patent application Ser. No. 11/834,214, filed on Aug. 6, 2007, now U.S. Pat. No. 7,575,251, entitled TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS, which in turn claims priority from U.S. patent application Ser. No. 11/091,070, filed Mar. 28, 2005, now U.S. Pat. No. 7,278,650, entitled TRAVEL TRAILER HAVING IMPROVED TURNING RADIUS, which in turn claims priority from U.S. Provisional Patent Application Ser. No. 60/557,302, filed on Mar. 29, 2004, entitled IMPROVED FIFTH WHEEL TRAILER. All prior applications are hereby expressly incorporated into the present application by reference.

BACKGROUND AND SUMMARY

The present disclosure relates generally to travel and fifth wheel-type trailers. In particular, the present disclosure is related to the configuration of such trailers that are hitched to, and pivotable relative to, an attached towing vehicle.

Travel trailers and fifth wheel trailers are commonly known and used as campers or used for hauling. Typically, fifth wheels are configured to be pivotably attached to pickup or similar type trucks. The bed of the pickup truck has a mating hitch attached thereto configured to receive a hitch located on the underside of the forward end of the fifth wheel. The fifth wheel often comprises an upper deck and a lower deck. The upper deck is typically located forward on the fifth wheel and is configured to extend over the rear of the pickup truck so the hitch can attach to the mating hitch on the truck's bed at a pivot location on the centerline of the trailer.

An issue that has arisen in recent years with fifth wheels, precipitated by the development and popularity of extended-cab pickup trucks. These extended-cab pickup trucks, which typically offer a second row of seating, extend the cab length often at the expense of the bed length. A consequence of this is that more pickup trucks now exist with shortened beds than in the past. Accordingly, the upper decks of conventional fifth wheels now occupy a greater portion of that shortened bed than in truck beds of the past. The less space that exists between the cab of a short bed truck and the forward end of the fifth wheel, the more impaired the turning radius of the truck can be.

Conventionally, the upper deck of a typical fifth wheel has a rectangular or parallelogram-shape footprint whose forward corner edges form right angles. The compartment extending upward therefrom is similarly cubicle and includes right-angled corner edges as well. These right-angled corner edges of the fifth wheel have a propensity to hit the rear corner of the cab of a tow vehicle if the turning radius of that vehicle becomes too great. As a result, the driver of the tow vehicle is required to either take broader turns or engage specialty hitches that extend the distance between the cab and the fifth wheel. These are not always desirable options because often there may not be available space to make a broad turn, and specialty hitches are cumbersome and expensive. Typically, these hitches are engaged before the turn and disengaged after the turn. It would, therefore, be beneficial to provide an alternative design of fifth wheel or travel trailer that is configured to increase the turning radius of the vehicle.

Accordingly, an illustrative embodiment of the present disclosure provides a travel trailer characterized by a chassis assembly coupled to a wheel assembly. A compartment is provided having at least one side wall and a forward wall. A hitch assembly is located adjacent the chassis assembly, and the forward wall. The hitch assembly is configured to couple to a mating hitch on a towing vehicle. The travel trailer also comprises a panel located between the side and forward walls. The panel forms an angle between itself and at least the side wall that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the angle formed between the side wall and the panel reduces any right-angled attachment between the side and forward walls to improve the towing vehicle's turning radius relative to the travel trailer; the panel forms an angle between itself and forward wall that is greater than 90 degrees; the panel eliminates any right-angle attachment between the side and forward walls; and the chassis assembly comprises a recess at edges adjacent the panel.

Another illustrative embodiment of the travel trailer comprises a chassis, a wheel assembly, a hitch assembly, and an outer coupling rail. The chassis includes a front end and a rear end. The chassis also includes a front outer frame rail located substantially perpendicular to a side outer frame rail. The wheel assembly is coupled to the chassis adjacent the rear end. The hitch assembly is attached to the chassis adjacent the front end. The outer coupling rail extends between the front and side frame rails. The outer coupling rail forms an angle between itself and at least the side frame rail at a front edge of the travel trailer that is greater than 90 degrees.

In the above and other illustrative embodiments, the travel trailer may also comprise: the coupling rail forming an angle between itself and the front frame rail that is greater than 90 degrees to improve the towing vehicle's turning radius relative to the travel trailer; the coupling rail eliminating a right-angle attachment between the side and front frame rails; and a compartment attached to the chassis at the front edge adjacent the outer coupling rail which comprises an inwardly oriented recess that extends from the chassis.

Another illustrative embodiment of the travel trailer comprises a chassis, a forward panel, at least one side panel, and a corner panel. The chassis assembly comprises a hitch assembly adjacent a front end of the trailer and a plurality of wheels adjacent a rear end of the trailer. The forward panel is located at the front end. The corner panel joins the forward and side panels but does not form a right-angled vertex between the forward and side panels. This allows an increased turning radius for the trailer as compared to forward and the side panels that join to form a right-angled vertex.

In the above and other illustrative embodiments, the travel trailer may also comprise: the corner panel forming a recess at a front edge of the travel trailer; the chassis assembly comprising a frame assembly having a corner rail located at a front corner of the frame that does not form a right-angled vertex at the front corner of the frame; and a compartment having right and left front corners, each of which is recessed inwardly to allow an increased turning radius for the trailer as compared to front edges having a right-angled vertex.

Another illustrative embodiment of the travel trailer comprises a chassis, a compartment, and a corner panel portion. The chassis comprises a hitch assembly adjacent a front end of the trailer and a plurality of wheels adjacent a rear end of the trailer. The compartment comprises at least a forward panel portion located at the front end and at least one side panel portion. The corner panel joins the forward and the side panels and recesses inwardly toward the interior of the com-

partment to allow an increased turning radius for the travel trailer as compared to forward and the side panels that join to form a right-angled vertex.

Another illustrative embodiment is a travel trailer for use with a towing vehicle. The towing vehicle has a mating hitch coupled thereto and is configured to haul the travel trailer. The travel trailer further comprises a chassis and a hitch. The chassis itself comprises first and second longitudinally extending side frame members, forward and rearward cross-members, and a first brace. The first and second longitudinally extending side frame members are oriented substantially parallel to each other and located exteriorly on the chassis. The forward and rearward cross-members are oriented substantially perpendicular to the first and second side members. The forward cross-member is also located exteriorly on the chassis and whose end does not attach to a corresponding end of the first side member. The first brace is attached adjacent the ends of forward cross-member and the first side member, and is located exteriorly on the chassis, and is oriented non-parallel to both the forward cross-member and the first side member. The hitch is attached to a portion of the chassis and couples with the mating hitch on the towing vehicle.

In the above and other illustrative embodiments, the travel trailer may also comprise: the towing vehicle having a bed that has the mating hitch attached thereto, and wherein a portion of the chassis is located over the bed; a compartment attached to the chassis and at least one recessed corner edge located at a forward end of the trailer adjacent the first brace to allow an increased turning radius for the travel trailer; and a frame having angled corner edges adjacent the recesses at the front end of the compartment.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises, a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a hitch assembly is attached to the chassis adjacent the front end. The compartment at the front end of the chassis forms first and second corners. A recess is located at each corner edge of the compartment such that cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a compartment attached to a chassis that includes a front end and a rear end. A plurality of wheels is attached to the chassis adjacent the rear end and a coupling is attached to the chassis adjacent the front end. The front end of the chassis forms first and second corner edges that are recessed.

Another illustrative embodiment is a travel trailer configured to be coupled to, and towed by a vehicle. The travel trailer comprises a chassis assembly, a hitch, a compartment and a cap. The chassis assembly includes front and rear ends. The hitch is attached to the chassis assembly adjacent the front end. The compartment is attached to the chassis assembly. The cap is located at the front end of the chassis and attached to the compartment. The cap has at least one front corner edge that includes a recess directed inward toward the compartment.

In the above and other illustrative embodiments, the travel trailer may also comprise: the cap further comprising a second front corner edge that also includes a recess directed inward toward the compartment; the space formed by the recesses being configured to receive a portion of the vehicle when engaged in a turn; the cap being a monolithic structure; and the cap being a plurality of structures.

Additional features and advantages of the travel trailer will become apparent to those skilled in the art upon consideration of the following detailed description of the illustrated embodiment exemplifying the best mode of carrying out the travel trailer as presently perceived.

BRIEF DESCRIPTION OF THE DRAWINGS

The present disclosure will be described hereafter with reference to the attached drawings which are given as non-limiting examples only, in which:

FIG. **1** is front perspective view of an illustrative trailer including recessed front corners according to an illustrative embodiment of the present disclosure;

FIG. **2** is a top perspective detail view of a front corner edge portion of the trailer and a rear cab portion of a tow vehicle engaged in a turn;

FIG. **3** is another top perspective detail view showing the other front corner edge portion of the trailer and the other rear cab portion of the tow vehicle engaged in a turn;

FIG. **4** is a top schematic view of an illustrative tow vehicle and a prior art trailer;

FIG. **5** is a top schematic view of the illustrative tow vehicle of FIG. **4** and a trailer according to an illustrative embodiment of the present disclosure;

FIG. **6** is a perspective view of a trailer frame according to an illustrative embodiment of the present disclosure;

FIG. **7** is a perspective view of a portion of the trailer frame of FIG. **6**;

FIG. **8** is a detail perspective view of a portion of the trailer frame about section A of FIG. **7**;

FIG. **9***a* is a top view of a portion of a prior art trailer frame;

FIG. **9***b* is a top view of a portion of the trailer frame of FIG. **6**;

FIG. **10** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **11** is a perspective view of the portion of the frame of FIG. **10** including a front cap assembly coupled thereto;

FIG. **12** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure;

FIG. **13** is a perspective view of the portion of the frame of FIG. **12** including a front cap assembly coupled thereto;

FIG. **14** is a perspective view of a portion of a trailer frame according to another illustrative embodiment of the present disclosure; and

FIG. **15** is a perspective view of the portion of the frame of FIG. **14** including a front cap assembly coupled thereto.

Corresponding reference characters indicate corresponding parts throughout the several views. The exemplification set out herein illustrates embodiments of the travel trailer, and such exemplification is not to be construed as limiting the scope of the travel trailer in any manner.

DETAILED DESCRIPTION OF THE DRAWINGS

A front perspective view of an illustrative fifth wheel or travel trailer **2** is shown in FIG. **1**. The trailer shown in this view is commonly referred to as a fifth wheel trailer. This trailer **2**, as well as other trailer designs, generally comprises a compartment **4** that sits on a frame chassis **6** (see, e.g., FIGS. **6** through **15**) which are tied to a plurality of wheels **8**. This trailer **2** includes a dual deck design having a step **10** located near the front end **12** of trailer **2** between a lower deck **11** and

an upper deck **16**. The step **10** allows the upper deck **16** of compartment **4** to extend over the bed of a tow vehicle **14** such as a pickup truck. (See also FIG. **2**.) Attached to upper deck **16** of trailer **2** is a hitch assembly **18**. This hitch assembly **18** is located adjacent the front end **12** of trailer **2**, as well. The hitch assembly **18** is configured to engage a mating hitch assembly, typically located on bed **22** of the vehicle **14**. (See, e.g., FIG. **2**.)

The forward most end of the compartment comprises an illustrative forward end cap **24**. In this illustrative embodiment, end cap **24** comprises a front wall at the middle portion of the cap **24** referred to as forward face **26**, recessed corner edges **28**, **30** and side panels **32**, **34**. Recessed portions **28**, **30** extend upward from the lower edge of the upper deck **16** and each have a width at the lower edge that tapers with distance away from the lower edge. Illustratively, the forward face **26** is bowed outwardly from compartment **4** with its apogee located near the vertical center of the same, as shown in FIG. **1**. Also, as one illustrative embodiment, the recessed corner edges **28**, **30** follow a similar contour as forward face panel **26**. This allows a portion of the compartment to extend forward of the rear end of passenger compartment **36** of tow vehicle **14**. (See, e.g., FIG. **5**.) In addition, at least a portion of the front corners of the trailer **2** are occupied by the recessed corner edges **28**, **30**. Clearance provided by recessed corner edges **28**, **30** is particularly useful for fifth wheels and other trailers that include an upper deck **16** similar to that shown herein. Since the portion of the compartment located over planar, uppermost upper deck **16** is adjacent the rear end of passenger compartment **36** on vehicle **14**, limited distance between the two structures may exist. It is this limited distance that inhibits the turning radius of the vehicle **14**. As shown in FIG. **1**, the space formed by the inward directed, arcuate profile corners, can receive a portion of compartment **36**, thus creating enhanced turn radiuses, as compared to conventional right-angle vertex cornered edges of conventional trailers. The distinction between the two corner types is illustratively indicated by reference numeral **38**. Thus, recessed corner edges **28**, **30** are directed inwardly toward the interior of compartment **4**, the effective turn radius available for the trailer can be enhanced over conventional fifth wheel or other travel trailers having standard 90 degree corner edges.

It is appreciated that alternative embodiments of forward end cap **24** may include any number of shapes having inward directed corners. Cap **24** may also be manufactured from a plurality of panels, or may be a monolithic molded or formed structure. Illustratively, in one embodiment, forward face **26** may comprise a separate forward panel, separate recessed, and/or even separate angled panels attached thereto, along with separate side panels attached thereto. It is further appreciated that in other illustrative embodiments, the recessed corner edges can be of varying shape, depth, contour, and angle to accommodate and increase the turning radius of the attached vehicle.

A top perspective detail view of recessed corner edge **30** of trailer **2** coupled to vehicle **14** which is engaged in a turn, is shown in FIG. **2**. A cavity **42** produced by the contour of recessed corner edge **30** receives at least a portion of corner **44** of vehicle **14**. As shown in this view, mating hitch assembly **20** is attached to bed **22** of vehicle **14** and is engaged to hitch assembly **18** to pivotably attach trailer **2** to vehicle **14**. (See, also, FIG. **3**.) This view demonstrates how such a turn would not be possible without recessed corner edge **30**. Side wall **34**, if extended more forwardly on trailer **2**, along with front face **26** extending its width, a conventional right-angle corner edge would be formed that would become crushed during such a tight turn shown therein. From this view it is appreciated that the recessed corner edge **30** can be contoured as desired, so its cavity **43** receives a portion of the corner of the cab of the vehicle having any unique or conventional configuration. (See FIG. **3**.) It is contemplated herein that the invention is not limited to the specific size, shape, and contour of the recessed portion. It can further be seen from this view how the arcuate contour of forward end cap **24** can increase the amount of available space in the compartment by being able to extend over at least a portion of passenger compartment **36** of vehicle **14**. (See, also, FIG. **5**.) This may be achieved either independently or in combination with recessed corner edges **28**, **30**.

Another top perspective detail view showing an opposite turn of vehicle **14** with respect to trailer **2**, is shown in FIG. **3**. This view demonstrates how recessed corner edge **28**, similar to that shown with respect to recessed corner edge **30**, can increase the turn radius of vehicle **14**. Such a sharp turn, as depicted in this view, could not be achieved with a trailer having conventional right-angled corner edges.

To further illustrate, a top schematic view of tow vehicle **14** hitched to a prior art, conventionally shaped trailer **46**, is shown in FIG. **4**. As vehicle **14** turns in direction **48**, the corner **50** of prior art trailer **46** impacts rear corner **44** of passenger compartment **36** at a relatively shallow angle. This produces a relatively large crush zone as indicated by reference numeral **52** at impact **54**. Because the forward corners of prior art trailer **46** include corners having right-angled edges as indicated by reference numerals **50** and **56**, the turn radius is relatively small, as indicated by reference numeral **58**.

In contrast, as shown in FIG. **5**, the same vehicle **14** is shown making a turn with an illustrative embodiment of trailer **2** hitched thereto. As shown, when vehicle **14** turns in direction **48**, the recessed corner edge **30** provides enough clearance to create a relatively large turn radius, indicated by reference numeral **60**, and has a relatively small crush zone **62** at impact point **64**. As is also shown, the recessed portion **30** lies in a first plane and faces away from the pivot location of mating hitch assembly **20** in one direction and recessed portion **28** lies in a second plane and faces away from the pivot location in another direction. It is also appreciated from this view how the illustrative arcuate shape of forward end cap **24**, as described with respect to FIG. **1**, may enhance the available space within compartment **4**. In this view it is shown that the forward edge **66** is recessed towards the interior of compartment **4** relative to the forward most point of forward end cap **24**. In one illustrative embodiment this combination between the arcuate shape of forward end cap **24** and the recessed positioning of forward edge **66** of chassis **6** provides a compromise between increased interior space of compartment **4** and the enhanced turning radius as shown.

A perspective view of an illustrative embodiment of chassis **6** is shown in FIG. **6**. Chassis **6** is illustratively a frame that the flooring and compartment are built upon. Such framing includes side frame members **68**, **70** extending longitudinal from front to rear and are joined by additional side frame members **72**, **74**. In this illustrative embodiment, cross beams **76** extend between the side frame members **68** through **74**. Shown in this illustrative embodiment are also slide-out frame members **78** and **80**. As discussed with respect to FIG. **1**, this trailer includes a step **10** that provides the upper deck **16**, herein formed on the chassis by side frame members **82**, **84** and structurally secured by cross beams **86**. As shown herein, side frame members **82**, **84** do not extend and attach directly to forward edge member or beam **88**. Rather, angled braces **90** and **92** extend between frame members **82**, **84** and forward edge beam **88** respectively, as shown herein. Angled braces **90**, **92**, thus, effectively eliminate the right-angled

corner edges known to inhibit the turning radius of the vehicle relative to the trailer. It is contemplated that the precise angle formed between, for example, frame members **82** and angled brace **90**, can be of any angle to allow a recess to form. As illustratively shown herein, the angle formed between the two structures is greater than 90 degrees. The same is illustratively the case with the angle between forward edge beam **88** and both angled braces **90**, **92** as shown herein. Also shown are illustrative forward brace members **95**, **96** which serve to strengthen chassis **6**.

A perspective view of a portion of chassis **6** is shown in FIG. **7**. Specifically, shown is the upper deck portion **16** which includes side frame members **82**, **84**, and cross beams **86**. Forward edge beam **88** is shown attached to angled braces **90**, **92**, which are themselves attached to side frame members **82**, **84**, respectively. A detail view of a forward corner of upper deck **16** is shown in FIG. **8**. This view further illustrates the attachment of angled brace **90** forward edge beam **88**, and side frame member **82**. It can be appreciated from this view how beam **88** and side frame member **82** do not directly attach, thus eliminating the right-angle corner edge that would otherwise be formed by their attachment.

Top views of the upper deck of the travel trailer are shown in FIGS. **9***a* and *b*. Specifically, FIG. **9***a* is a prior art version of such an upper deck, whereas FIG. **9***b* depicts upper deck **16** as discussed with respect to FIGS. **6** through **8**. Comparing the structure of **9***a* to the structure of **9***b* much is similar except for the forward corners and the forward edge beams. For example, the prior art upper deck **94** uses side frame members **96**, **98** to attach to forward edge beam **100** to form corner right-angled edges **50**, **56**. (See, also, FIG. **4**.) It is these corner edges that can limit the turning radius of vehicle **14** for the reasons previously discussed. By comparison, such corner edges have been removed from upper deck **16**, as indicated by reference numerals **106**, **104** in FIG. **9***b*.

Perspective views of another illustrative embodiment of an upper deck frame **106** are shown in FIGS. **10** and **11**. As shown in FIG. **10**, many of the side frame members **82**, **84**, as well as cross beams **86**, are the same or similar to that shown in the previous embodiments. Furthermore, forward edge beam **88** is also positioned in a comparable location as prior embodiments. This illustrative embodiment differs from the prior embodiments from the perspective that angled braces **90**, **92** are attached to the ends of frame members and beams **82**, **88** and **84**, **88**, respectively. For example, angled brace **90** is attached to the terminus **108** of side frame member **82**. Similarly, angled brace **90** is attached to terminus **110** of forward edge beam **88**. Angled brace **92** follows suit by attaching to side frame member **84** at terminus **112** and to forward edge beam **88** at terminus **114**. In this embodiment cross beams **116** and **120** illustratively provide structural support to the forward corners.

The perspective view of upper deck frame **106** in FIG. **11** shows an illustrative embodiment of forward end cap **24** attached thereto. The angled braces **90**, **92** accommodate the recessed corner edges **28**, **30**, as previously discussed. As shown, the recessed corner edges **28**, **30**, which constitute lower corner portions of the cap **24** located at lower junctures connecting lower portions of the side walls and the front wall of the cap **24**, are recessed inwardly (as described above) with respect to upper corner portions of the cap **24** located at upper junctures connecting upper portions of the side walls and the front wall of the cap **24**. It is appreciated that the recessed corner edges may follow the contour of braces **90**, **92**, or they may, as shown herein, form a differently shaped recessed cavity. Further shown in this view are illustrative attachments **124**, **126** which are configured to be used to attach end cap **24** with compartment **4**. It is appreciated, however, that other means of attachment and/or sealing can be employed.

Perspective views of another illustrative embodiment of upper deck **130** of a trailer are shown in FIGS. **12** and **13**. As shown in FIG. **12**, upper deck **130** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is that angled braces **90**, **92** are removed completely which illustratively provides an even deeper recess within the forward corners of the deck **130**. As shown, cross beams **116**, **120** serve as the outer structure of deck **130** at the forward corners. Although cross beam **116** forms a right-angle attachment with side frame member **82**, and cross beam **120** does the same with forward edge beam **88**, frame member **82** does not attach to forward edge beam **88** to form a right-angled corner edge as disclosed in the prior art. Rather the right angle attachments disclosed in this illustrative embodiment are directed inwardly toward the interior of compartment **4**. Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **130** in FIG. **13**. It is, again, appreciated that the recessed corner edges can be of any useful depth and may be formed to conform to the shape of the cavities created by cross beams **116**, **120**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Perspective views of another illustrative embodiment of upper deck **140** of a trailer are shown in FIGS. **14** and **15**. As shown in FIG. **14**, upper deck **140** is similar in several respects to the prior embodiments, including side frame members **82**, **84**, as well as cross beams **86** extending there across. The distinction from the previous embodiments is arcuate braces **142**, **144**. As shown, cross beams **116** and **120** still serve as structural supports adjacent the forward corners. Arcuate braces **142**, **144**, however, serve as the outer frame members at the forward corners, each attached to their respective frame members **82**, **84**, and both attached to forward edge beam **88**. The forward corners are still recessed as indicated by reference numerals **146**, **148** which depict conventional forward frame corners. (See, also, FIG. **9***a*.) Similar to the previous embodiments, forward end cap **24** is shown attached to upper deck **140** in FIG. **15**. It is, again, appreciated that the recessed corner edges **28**, **30** can be of any useful depth and may be configured to conform to the shape of the cavities created by arcuate braces **142**, **144**. Conversely, as shown herein, recessed corner edges **28**, **30** may also take a differing recess shape than the cavities formed by cross beams **116**, **120**.

Although the present disclosure has been described with reference to particular means, materials and embodiments, from the foregoing description, one skilled in the art can easily ascertain the essential characteristics of the present disclosure and various changes and modifications may be made to adapt the various uses and characteristics without departing from the spirit and scope of the present invention as set forth in the following claims.

What is claimed is:

1. A fifth wheel travel trailer, including:

a compartment having a front end, a rear end, a floor and a deck located at the front end at a position higher than the floor;

a hitch connected to the deck at a location higher than the floor, the hitch being configured to couple to a mating hitch on a towing vehicle;

an outer front wall located adjacent the deck;

an outer side wall located adjacent the deck and connected to the front wall to form a corner;

a panel located between the side wall and the front wall at the corner; and

a chassis having a forwardmost edge member at the front end of the compartment and a side frame member positioned relative to the forwardmost edge member to define a recess, the panel being directed inwardly at an acute angle relative to vertical from the corner toward the interior of the compartment and upwardly from the forwardmost edge member, the panel providing clearance for a portion of the towing vehicle so as to permit the towing vehicle to make a tighter turn without striking the travel trailer.

2. The travel trailer of claim **1**, wherein the panel is planar.

3. The travel trailer of claim **1**, wherein the panel forms an angle between itself and the side wall that is greater than 90 degrees.

4. The travel trailer of claim **1**, wherein the panel forms an angle between itself and the front wall that is greater than 90 degrees.

5. The travel trailer of claim **1**, wherein the panel extends above the deck.

6. The travel trailer of claim **1**, wherein the hitch couples to the mating hitch at a pivot location, the panel being located substantially rearward of the pivot location.

7. The travel trailer of claim **6**, wherein the panel is located entirely rearward of the pivot location.

8. The travel trailer of claim **1**, further including a cap attached to the compartment, the cap including a middle portion extending upwardly from the forwardmost edge member.

9. The travel trailer of claim **8**, wherein the middle portion is disposed forward of the forwardmost edge member.

10. The travel trailer of claim **1**, wherein the panel has a width that is less than one half an overall width of the deck.

11. The travel trailer of claim **1**, wherein the panel has a width that tapers with distance away from the forwardmost edge member.

12. The travel trailer of claim **1**, wherein the panel has a width that varies with vertical distance from the deck.

13. The travel trailer of claim **1**, wherein the recess is located rearward of the forwardmost edge member.

14. A fifth wheel travel trailer, including:

a compartment having a front end, a rear end, a floor and a deck located at the front end at a position higher than the floor;

a hitch connected to the deck at a location higher than the floor, the hitch being configured to couple to a mating hitch on a towing vehicle;

an outer front wall located adjacent the deck;

an outer side wall located adjacent the deck and connected to the front wall to form a corner;

a panel located between the side wall and the front wall at the corner; and

a chassis having a forwardmost edge member at the front end of the compartment and a side frame member positioned relative to the forwardmost edge member to define a recess, the panel being directed inwardly toward the interior of the compartment and upwardly from the forwardmost edge member, the panel providing clearance for a portion of the towing vehicle so as to permit the towing vehicle to make a tighter turn without striking the travel trailer,

wherein the forwardmost edge member is located between the hitch and the panel.

15. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:

a chassis having a forwardmost edge member;

a compartment defining

a first interior space having a first deck and a first interior height above the first deck, and

a second interior space having a second deck and a second interior height above the second deck,

the second deck being disposed higher than the first deck; and

a cap attached the compartment, the cap including a pair of recessed portions extending upwardly from the forwardmost edge member, and positioned rearward of the forwardmost edge member, to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

16. The fifth wheel travel trailer of claim **15**, wherein the second interior height is greater than one half the first interior height.

17. The fifth wheel travel trailer of claim **15**, wherein the chassis includes a frame that defines the second deck, the frame having corners at a front end of the compartment, the pair of recessed portions being received by cavities formed at the corners of the frame.

18. The fifth wheel travel trailer of claim **17**, further including a hitch connected to the frame and configured to couple to a mating hitch attached to bed of the towing vehicle.

19. The fifth wheel travel trailer of claim **15**, wherein the recessed portions extend inward toward the second interior space.

20. The fifth wheel travel trailer of claim **15**, wherein the recessed portions are disposed between a side wall of the trailer and forward surface of the trailer.

21. The fifth wheel travel trailer of claim **15**, wherein the chassis also includes a side frame member positioned relative to the forwardmost edge member to define a recess for receiving a recessed portion of the cap.

22. The fifth wheel travel trailer of claim **21**, further including a hitch attached to the chassis and coupled to a mating hitch on the vehicle at a pivot location, the recessed portions being located substantially rearward of the pivot location.

23. The fifth wheel travel trailer of claim **22**, wherein the recessed portions are located entirely rearward of the pivot location.

24. The fifth wheel travel trailer of claim **15**, wherein the cap further includes a middle portion extending upwardly from the forwardmost edge member between the recessed portions, the middle portion being disposed forward of the forwardmost edge member.

25. The fifth wheel travel trailer of claim **15**, further including a pair of sidewalls positioned on opposite sides of the second deck, each recessed portion being positioned adjacent a different one of the pair of sidewalls.

26. The fifth wheel travel trailer of claim **15**, wherein one recessed portion faces away from a centerline of the trailer in one direction and the other recessed portion faces away from the centerline in another, different direction.

27. The fifth wheel travel trailer of claim **15**, wherein each recessed portion has a width that is less than one half an overall width of the second deck.

28. The fifth wheel travel trailer of claim **27**, wherein the width of each recessed portion tapers with distance away from the forwardmost edge member.

29. The fifth wheel travel trailer of claim **15**, wherein each recessed portion has a width that varies with vertical distance from the second deck.

30. The fifth wheel travel trailer of claim 15, wherein each recessed portion is an inward directed corner.

31. The fifth wheel travel trailer of claim 15, wherein the pair of recessed portions are positioned entirely rearward of the forwardmost edge member.

32. The fifth wheel travel trailer of claim 15, wherein the recessed portions are substantially planar.

33. A fifth wheel travel trailer, including:

a compartment having a front end, a rear end, a floor and a deck located at the front end at a position higher than the floor;

a hitch connected to the deck at a location higher than the floor, the hitch being configured to couple to a mating hitch on a towing vehicle at a pivot location;

an outer front wall located adjacent the deck rearward of the pivot location;

an outer side wall located adjacent the deck and connected to the front wall to form a corner;

a panel located between the side wall and the front wall at the corner; and

a chassis having a forwardmost edge member at the front end of the compartment and a side frame member positioned relative to the forwardmost edge member to define a recess, the panel being received by the recess and providing clearance for a portion of the towing vehicle so as to permit the towing vehicle to make a tighter turn without striking the travel trailer.

34. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:

a chassis having a forwardmost edge;

a hitch attached to the chassis and coupled to a mating hitch on the vehicle at a pivot location;

a compartment defining

a first interior space having a first deck and a first interior height above the first deck, and

a second interior space having a second deck and a second interior height above the second deck,

the second deck being disposed higher than the first deck; and

a cap attached to the compartment, the cap including a middle portion disposed rearward of the pivot location and a pair of recessed portions extending upwardly from the forwardmost edge, and positioned rearward of the forwardmost edge to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

35. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:

a compartment defining a first interior space having a first deck and a second interior space having a second, uppermost deck positioned higher than the first deck;

a cap at a front end of the compartment, the cap including an outer front wall extending upwardly from the uppermost deck and a pair of opposite outer side walls extending upwardly from the uppermost deck;

upper portions of the sidewalls being connected to the front wall at respective upper junctures each forming an upper corner portion;

lower portions of the side walls being connected to the front wall at respective lower junctures each forming a lower corner portion between the front wall and a respective sidewall; and

a hitch attached to the uppermost deck and coupled to a mating hitch on the vehicle at a pivot location;

the lower corner portions being located entirely rearward of the pivot location and recessed inwardly of the respective upper corner portions when viewed vertically to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

36. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:

a compartment defining a first interior space having a first deck and a second interior space having a second, uppermost deck positioned higher than the first deck; and

a cap at a front end of the compartment, the cap including an outer front wall extending upwardly from the uppermost deck and a pair of opposite outer side walls extending upwardly from the uppermost deck;

upper portions of the sidewalls being connected to the front wall at respective upper junctures each forming an upper corner portion;

lower portions of the side walls being connected to the front wall at respective lower junctures each forming a lower corner portion between the front wall and a respective sidewall, the lower corner portions being recessed inwardly of the respective upper corner portions when viewed vertically to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

37. The fifth wheel travel trailer of claim 36, wherein each of the lower corner portions tapers in an upward direction.

38. The fifth wheel travel trailer of claim 36, wherein each of the lower corner portions are located rearward of a front edge of the uppermost deck.

39. The fifth wheel travel trailer of claim 36, further including a hitch attached to the uppermost deck and coupled to a mating hitch on the vehicle at a pivot location, the lower corner portions located rearward of the pivot location.

40. The fifth wheel travel trailer of claim 39, wherein the lower corner portions are located entirely rearward of the pivot location.

41. The fifth wheel travel trailer of claim 36, further including a chassis having a forward edge member and a side frame member positioned relative to the forward edge member to define a recess for receiving a lower corner portion of the cap.

42. The fifth wheel travel trailer of claim 36, wherein the lower corner portions are substantially planar.

43. The fifth wheel travel trailer of claim 36, wherein the lower corner portions extend above the uppermost deck.

44. The fifth wheel travel trailer of claim 36, wherein the lower corner portions extend inward toward the second interior space.

45. The fifth wheel travel trailer of claim 36, wherein the outer front wall of the cap is disposed forward of a forwardmost edge member of the uppermost deck.

46. The fifth wheel travel trailer of claim 36, wherein the lower corner portions each have a width that is less than one half an overall width of the uppermost deck.

47. The fifth wheel travel trailer of claim 46, wherein the width of each lower corner portion tapers with vertical distance away from the uppermost deck.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 8,162,352 B2
APPLICATION NO. : 12/967836
DATED : April 24, 2012
INVENTOR(S) : John M. Rhymer, Douglas M. Lantz and Scott J. Tuttle

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification
In column 1, line 4, “related to and claims priority to” should read --a continuation of--.
In column 1, line 8, “in turn claims priority from” should read --is a continuation of--.
In column 1, lines 11-12, “in turn claims priority from” should read --is a continuation of--.
In column 1, line 15, “in turn claims priority from” should read --claims the benefit of--.

Signed and Sealed this
Nineteenth Day of November, 2013

Teresa Stanek Rea

Teresa Stanek Rea
Deputy Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE

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PATENT NO. : 8,162,352 B2
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INVENTOR(S) : John M. Rhymer, Douglas M. Lantz and Scott J. Tuttle

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Specification

In column 1, lines 17-19, "All prior applications are hereby expressly incorporated into the present application by reference." should be deleted in its entirety.

Signed and Sealed this
Second Day of September, 2014

Michelle K. Lee

Michelle K. Lee
Deputy Director of the United States Patent and Trademark Office

A New Level of Luxury
A Publication of
Heartland Recreational Vehicles, LLC
28868 Paul Dr.
ELKHART, INDIANA 46514

FROM THE HEARTLAND

THE NEXT GENERATION OF 5TH WHEELS

LANDMARK

LANDMARK'S PATENT PENDING DESIGN PROVIDES 30% MORE TURNING RADIUS!

Designed for today's extended cab, short bed pick-up trucks!

THE PROBLEM:

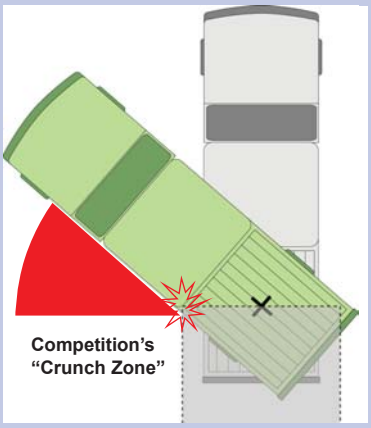
Today's short bed pick-up trucks with extended cab areas (also referred to as crew cabs) are becoming more and more popular. A lot of their popularity stems from the fact that standard bed pick-ups have become so large, especially with extended cab areas, that they cannot fit into most residential garages, or even into a standard parking space. While the new short bed truck configurations with extended cabs offer increased seating capacity and comfort, they have become problematic when being used as tow vehicles for 5th wheel trailers.

You'll NEVER see this tight of a turning radius with an extended cab short bed truck - unless it's a LANDMARK!

The shorter truck beds have resulted in a decreased distance between the cab of the truck and the front fiberglass cap of the 5th wheel they are towing. This has significantly diminished the turning radius of the truck when the 5th wheel is attached or being towed.

Because of this diminished turning radius, there have been a number of incidents where 5th wheel owners who tow with short bed pick-up trucks have turned or backed up too sharply, causing the cab of their truck to hit the corner of their 5th wheel in the fiberglass front cap area – resulting in extensive damage to both the fiberglass cap of the 5th wheel and the cab of the truck.

Warnings and informative articles regarding this situation are now commonplace in industry publications, Rving magazines, consumer web sites and manufacturer's materials.



THE SOLUTION:

Heartland Recreational Vehicles, LLC has engineered a unique new LANDMARK 5th wheel which dramatically improves the turning radius of today's short bed pick-up trucks with extended cabs when attached to a 5th wheel trailer. This revolutionary concept involves both rethinking how the 5th wheel is designed from the ground up, as well as how its fiberglass front cap design flows in relationship to the frame. The result is a 30% increased turning radius when attached to a short bed pick-up truck with an extended cab, allowing LANDMARK owners the ability to confidently back into any tight camping space, day or night.

JACK KNIFE?

NO! This truck is NOT jack knifed... It's just executing a nice, tight turn while attached to the revolutionary new LANDMARK 5th wheel featuring a Patent Pending front end design!

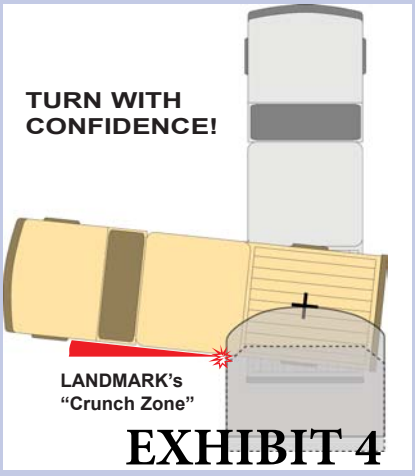


EXHIBIT 4

CANYON TRAIL

Fifth Wheels and Travel Trailers

YELLOWSTONE RV

EXHIBIT 5

CANYON TRAIL

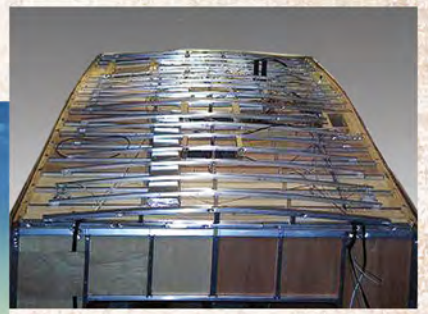
Inside and out, top to bottom, seen and unseen, your new Canyon Trail is built and equipped like no other. Shown below, a few of the many standard features and options that create our unique combination of luxurious style and top-quality construction. Ask your Dealer for details.

Our unique 'Rock Wall' Entertainment Center, featured in several floor plans.

Residential stainless double-bowl sink with high-arch pull-out sprayer faucet.

Central control panel with light and slide switches, tank monitors, awning, water heater and pump controls.

Unique XLT Extended Hitch Pin for maximum turning clearance on short bed trucks; optional ABS Hitch Cover.



Welded square-tube aluminum frame is strong, lightweight and durable.

Optional electric fireplace adds warmth on chilly mornings and charm anytime.

Multi-burner gas range highlighted with optional pencil-tile backsplash.

"Soft Rainfall" oversized shower head featured in Premium Edition Models.

Seamless 12" deep ABS storage chest under bed helps keep items clean and odor-free.

Huge pass-through basement with fold-down bulkhead wall to separate and organize cargo.

Multi-source, multi-speaker sound and video system with DVD, USB and SD memory card slots.

Keyfob actuator for optional keyless remote security system.

Optional countertop glass vessel wash basin and brushed stainless steel tap, featured in Premium Edition Models.

Heated and insulated basement keeps bath and bedroom floor warmer.

Rear mount 2" hitch receiver for small trailer or bumper gear rack.

33FRLQ "Atrium" Room with Rock Wall Entertainment Center

No One Gives You More

Stunning elegance. Extraordinary convenience. Your needs anticipated and met; your expectations exceeded. That's the legacy of Canyon Trail.

More than a feast for the senses though, your Canyon Trail is a cozy refuge; a rock-solid outpost of security and rugged durability.

Our unique combination of luxurious style and top-quality construction makes every Canyon Trail an unbeatable value.

From our economical new Sport Series to our premium Executive Edition, Canyon Trail has a Fifth Wheel or Travel Trailer that is perfect for you.

Extraordinary Fifth Wheels and Travel Trailers

33FRLQ Kitchen

Optional J-Lounge

Advanced Profile

Giving you a combination level of luxury and spaciousness unseen anywhere else, Canyon Trail Advanced Profile Floor Plans provide full-profile headroom and comfort using a unique chassis with sophisticated on-the-road performance, precise maneuverability, and all the storage space you've always wanted.

Sumptuous Master Suite Bedroom Slide with Mirrored Closet Doors.

Stylish and functional Island Kitchen with Standard Light Maple Cabinetry and Optional Solid Surface Countertops. Model 36FBQS shown.

Unique full-width Master Bath in the Model 36FBQS.

Free-Standing Dinette in Optional Dark Cherry.

Sun-Filled 36FBQS with Air Mattress Sofa and optional Leather Recliners.

The Advanced Profile platform is ideal for the most luxurious and innovative ideas in the Fifth Wheel industry, from cabinetry to electronics, floor plans to furnishings.

XLT Series

Your Short Bed Pickup is the ideal tow vehicle for our specially engineered XLT Series Fifth Wheels. With a lower profile, lightweight aluminum-frame, aerodynamic fiberglass front cap, and our exclusive extended hitch pin, you can enjoy Canyon Trail quality and easy towing to a friendly campground near you or a wilderness escape across the continent.

Luxurious full size Queen Bed and huge Wardrobe Slide are standard in every XLT Floor Plan.

Sun-filled Atrium Slide with Freestanding Dinette and overstuffed Leather-Touch Recliner - shown in the Model 27FRET.

Our impressive "Rock Wall" Entertainment Center with optional Electric Fireplace; one of the many ways to entertain family and friends in your 27FRET.

XLT Kitchens are functional and stylish, with generous counters, plenty of cabinets, and top quality appliances. 27FRET shown.

You can settle for less from other manufacturers - but with the Canyon Trail XLT Series, you don't have to!

Luxury Trailers

Your search for a truly rugged, truly luxurious travel trailer is over: Canyon Trail has put everything it knows about building the world's best Fifth Wheels in to its unique Luxury Travel Trailers. If you want Canyon Trail quality in a flat-floor towable, you've found it!

The Island Kitchen you've always wanted, adorned with hardwood cabinetry - The perfect stage for preparing casual family meals and enteraining friends. Model 32TBHT shown.

Sport Series

The perfect starting point for a better life, the economical new Sport Series means you can own a Fifth Wheel with a heritage of luxurious quality. With the new Sport Series, it doesn't cost more to step up to legendary Canyon Trail quality

- It costs LESS!

Our Luxury Travel Trailers feature gracefully appointed interiors, subtly stylish decors, and ingenious floor plans built with the rock-solid construction advantages of Canyon Trail.

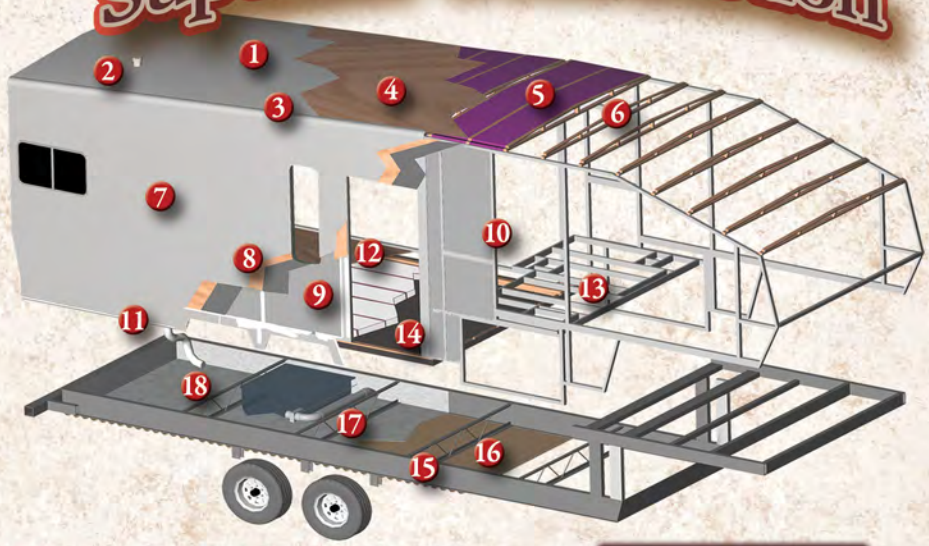
Kitchen, Dining Area and Living Room work together in the 32TBHT.

Invite the young campers to join you. Several floor plans feature Bunk Rooms ready for the latest electronic toys.

USDC IN/ND case 3:15-cv-00131-JD-CAN document 1 filed 03/25/15 page 83 of 114

26FRKW Rear Kitchen in Burlridge Maple

Superior Construction



Yellowstone owners enjoy skilled craftsmanship combined with the latest innovations in materials and construction.

26FRKW Living Area with optional Hide-A-Bed Sofa

Optional Freestanding Dinette Table & Chairs

Standard Queen Bed with Headboard

ROOF

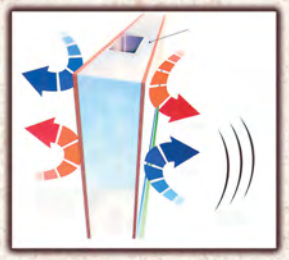
1. Crowned Roof improves drainage
2. Attic Vent for improved moisture control
3. Seamless One-Piece Rubber Roof w/12-Year Warranty
4. 1/2" Roof Decking
5. Thick Blanket of Fiberglass Insulation (R-14 standard, R-28 w/optional Extreme Weather Protection Package)
6. 5" Bowed Roof Trusses, 16" on center

SIDEWALL

7. Vacuum Bonded Sidewall
8. Thick Composite Waterproof Panel Backer
9. High-Density Block Foam Insulation (R-14 w/Thermal Barrier Construction
10. Welded Aluminum Wall Studs
11. Full Radius Fender Skirt Metal

FLOOR & SUB-BASEMENT

12. 5/8" Seamless Floor Decking
13. 3" Floor Joists, 14" on center
14. Protective Vapor Barrier
15. 8" to 12" I-Beam Corrosion-Coated Main Rails
16. 100% Enclosed & Heated Underbelly with Heated Basement & Heated Rotocast Tanks
17. Spaced Rod & Angle w/Z-Bar Supports
18. R-32 Enclosed Heated Holding Tank Space



EXTREME WEATHER PROTECTION (Optional)

Upgrade your Canyon Trail to true four-season capability

ROOF: R-28

* Fiberglass batts, continuous triple layer vapor barrier, attic vents, and radiant reflective film for up to R-28 depending on outside temperature

WALLS: R-14

* 2 lb. density polystyrene in composite sidewalls; endwalls w/fiberglass batts

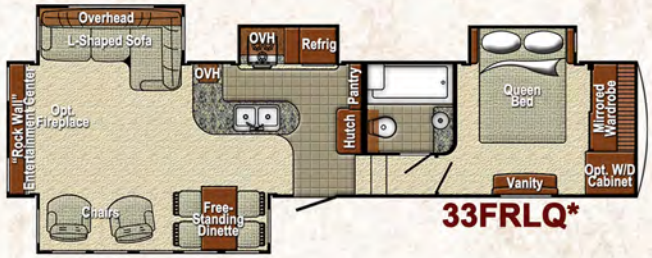
FLOOR: R-32

* Batt insulation in floor cavity, double ply vapor barrier w/97% reflectivity, R-32 heated holding tank area, fully enclosed heated basement, tanks & dump valves, R-14 thermal foil under bath & bedroom floor decks, Canyon Trail exclusive insulated R-14 frame rails to reduce thermal conduction

Advanced Profile

Full-Profile Fifth Wheels with 6'5" Bedroom ceilings, enormous storage space

30FRLW



33FRLQ*

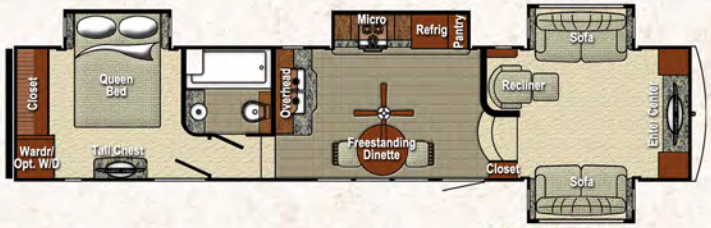
32FRBW

34FRSI*

32FBHT

36FBQS*

33FSBI



36FLRB*

33FRET

37RBDS

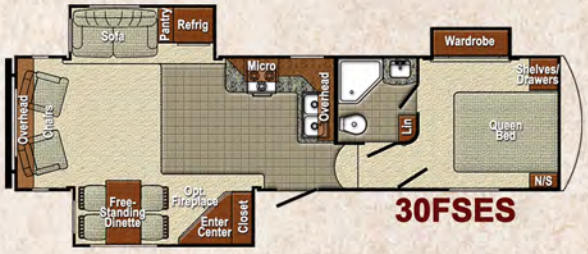
*Shown with Premium Edition Bathroom

XLT Series

Low-Profile Fifth Wheels for your Short Bed Pickup

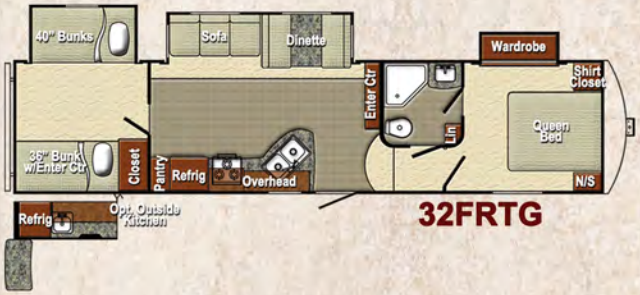
27FREL

27FRET



30FSES

31FBHS

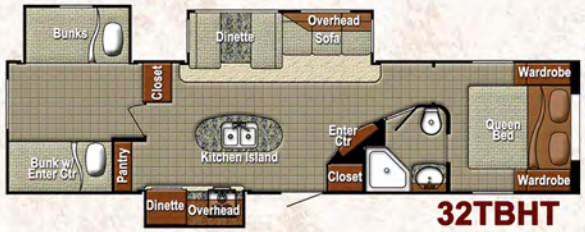


32FRTG

Luxury Trailers

Flat-floor Luxury Trailers built to rugged Canyon Trail Fifth Wheel standards

265BHS

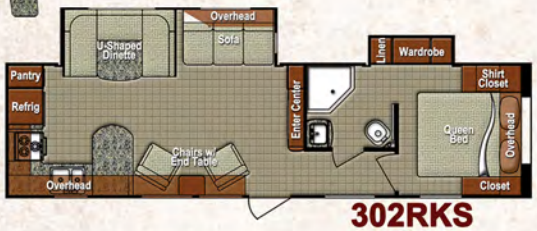


32TBHT

288RLS

34TRLW

301RKS



302RKS

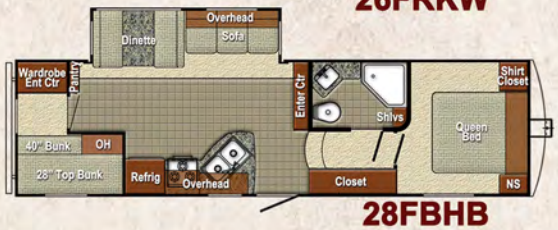
321TBS

Sport Series

Our most-affordable Fifth Wheels, Half-Ton towable; economical fun

25FRLW

26FRKW



28FBHB

Decor Choices

Yellowstone RV Interior Designers have done their work, providing you with beautiful, stylish, premium-quality interior decor choices.

Fabrics

Countertops

Cabinetry

Flooring

Standard Features

	ADV	XLT	SPT	TT
Interior				
Legacy Plus Stain & Cold Proof Vinyl	•	•	•	•
Multi-Colored Carpet w/3/8" Pad (LR/BR)	•	•	•	•
Steel Header Over Slide Rooms	•	•	•	•
"Leather Touch" Ceiling Panels	•	•	•	•
Hardwood Cabinet Trim	•	•	•	•
Bayridge Maple Cabinet Doors & Drawers	•	•	•	•
Crown Molding Trim at Ceiling	•	•	•	•
Laminate Countertops	•	•	•	•
Slide Out Facia - Bayridge w/Accent	•	•	•	•
Brushed Nickel Cabinet Hardware	•	•	•	•
Mocha Diamond Tile Backsplash	•	•	•	•
Framed Bath & Bedroom Doors	•	•	•	
Trash Can (Kitchen)	•	•		
Decorative Glass Door Inserts			•	•
Bronze Wave Glass Door Inserts	•	•		
Recessed Shoe Box (Bdrm Closet)	•			
Wood Shelf w/Valet Rod in BR Closet	•			
Heating, Cooling & Plumbing	ADV	XLT	SPT	TT
Water Heater By-Pass Valve	•	•	•	•
Whole Coach Water Purifier Filter	•	•	•	•
Black Tank Flush	•	•	•	•
Water Management System	•	•	•	•
Wall Mount Fire Extinguisher	•	•	•	•
"Max Vent" Slider Windows	•	•	•	•
E/Z Winterization System	•	•	•	
6 Gal Gas/Electric DSI Water Heater		•	•	•
35,000 BTU Furnace	•	•		
30,000 BTU Furnace			•	•
Heat Duct for Basement Area	•	•	•	
Second A/C Prep w/Power Vent (BR)	•			
Bath	ADV	XLT	SPT	TT
Medicine Cabinet - Bayridge Maple	•	•	•	•
Lavatory Sink - Parchment	•	•	•	•
Power Bath Vent	•	•	•	•
32" x 32" Parchment Shower Pan & Surround w/Neo Angle Glass Door	•	•	•	•
Heat & A/C Duct in Bath Area	•	•	•	•
Toilet Topper Cabinet	•	•		
Bronze Bath Hardware (Towel Ring, TP Holder)	•	•		
Electrical	ADV	XLT	SPT	TT
Cable/Satellite Ready Dual RG6 Coax	•	•	•	•
Bedside 110V Outlet	•	•	•	•
12V DVD/CD/AM/FM Stereo System w/7 Round Speakers	•	•	•	•
Exterior 110V GFI Outlet (Doorside)	•	•	•	•
65 Amp Power Convertor	•			

	ADV	XLT	SPT	TT
Electrical (continuted)				
Individual Slide Controls at Entry	•	•	•	•
12V Storage Compartment Light (Doorside)	•	•	•	•
Exterior Lights (Patio)	•	•	•	•
Convenience Switch Center w/Door	•	•	•	•
Wall Monitor Panel	•	•	•	•
Smoke Detector	•	•	•	•
Combo LP/CO Detector	•	•	•	•
Dinette Light in Main Slide Out	•	•	•	•
Winegard Digital Antenna	•	•	•	•
Hitch Light	•	•	•	
30 Amp Service w/45 Amp Convertor			•	•
Basememt TV Prep w/110V & Coax Connection	•	•		
50 Amp Service w/Detachable Cord	•			
Exterior Battery Compartment (Holds 2 Batteries)	•			
Battery Disconnect Switch	•			
Furnishings	ADV	XLT	SPT	TT
Pantry w/Shelves (Most Models)	•	•	•	•
Fabric Valances w/Drapes in Bedroom	•	•	•	•
Jack Knife Sofa	•	•	•	•
Booth Dinette	•	•	•	•
Decorative Fabric Headboard (N/A 36FBQS)	•	•	•	
60" x 74" Queen Bed, Bedspread & Pillows			•	•
Swivel Rockers (N/A Bunk Models)		•	•	•
Flip Down Fabric Headboard w/Storage			•	•
12" Deep ABS Lined Under Bed Storage w/Lift Assist Struts	•			
Pots & Pans Drawer	•	•		
4 Drawer Dresser in BR	•			
Bookshelf Over Bedroom Headboard	•			
Dual Euro Chairs w/Ottoman (N/A Bunk Models)	•			
60" x 80" Innerspring Mattress, Bedspread & Pillows				
Comfort Bunk Mats (Bunk Models)	•	•	•	•
Appliances	ADV	XLT	SPT	TT
6 cu. ft. Refrigerator	•	•	•	•
Wood Panel Refrigerator Door Inserts	•	•	•	•
Range Hood w/Light	•	•	•	•
3-Burner Range w/16" Oven & Auto Ignition	•	•	•	•
High Arching Dual Lever Faucet (Kit.)	•	•	•	•
Residential Sized Stainless Steel Sink	•	•	•	
(2) Black Sink Covers	•	•		

	ADV	XLT	SPT	TT
Exterior				
Textured Gel Coat Fiberglass Exterior	•	•	•	•
Synthetic Composite Fiberglass Wall Backing IPO Luan	•	•	•	•
Patio Awning	•	•	•	•
Radius Skirt Metal	•	•	•	•
Insulated Basement Storage Door	•	•	•	•
In Bumper Sewer Hose Storage	•	•	•	•
Electric Slide Room Mechanisms	•	•	•	•
30" x 72" Radius Entry Door w/Deadbolt Lock	•	•	•	•
Radius Triple Entry Steps	•	•	•	•
Security light	•	•	•	•
6'2" Height (Main Slide Room)	•	•	•	•
E-Z Lube Axles	•	•	•	•
Front Fiberglass Cap w/LED Docking & Clearance Lights (E-Z Turn)	•	•	•	
Rear Stabilizer Jacks	•	•	•	
Felt Liner (Basement Area)	•	•	•	
Fully Insulated Bulkhead & Gooseneck	•	•	•	
Aluminum Wall & Floor Frameing	•	•	•	
15" Radial Tires w/White Mod Rims			•	•
Dedicated Battery Storage	•	•	•	
(2) 30# LP Bottles w/ Auto Change	•	•		•
(2) 20# LP Bottles w/Auto Change		•		
2" Hitch Receiver	•	•		
Roof Ladder	•	•		
Slam Latch Cargo Doors	•	•		
Fold Down Bulkhead Wall in Basement (N/A Gen/Gen Prep)	•	•		
Outside Convenience Center	•	•		
Metal Roof Trusses	•	•		
Extended Hitch Pin for Short Bed Pickup Trucks		•	•	
Extended Hitch Pin	•			
Aluminum Bumper Wrap	•			
Crank Down Tire Carrier w/Spare Tire	•			
Undermount Spare Tire		•		
6000 lb. Axles	•			
Equa Flex Suspension	•			
Wardrobe Slide in Bedroom		•		
Battery Tray on Hitch			•	•
Safety Chains on Hitch			•	•

Sport Series Only Options

- Spare Tire & Carrier
- 26" LED TV w/Swing Arm
- Rear Ladder
- Wardrobe Slide w/Side Aisle Bath

Options & Packages

Camping with Comfort Package
(Required on Advanced Profile & XLT)

- Six-Sided All Metal Construction (Sidewalls and Upper Deck on Sport)
- Pleated Fabric Shades
- Premium Coil Queen Mattress
- Black Framed Tinted Safety Glass Windows
- Microwave Oven
- 13,500 BTU Air Conditioner
- Swing-Away Grab Handle at Entry Door
- Exterior Speakers
- Outside Shower
- Skylight in Shower
- Porcelain Toilet
- Ball Bearing Drawer Guides w/Full Extension
- Enclosed/Heated Underbelly & Valves
- Propane Quick Connect
- Snap Pins on Front Jack Legs (FW)
- TV Swing Arm Bracket (LR)

Convenience Group
(Optional on Advanced Profile & XLT only)

- 16" Radial Tires w/White Modular Rims
- 10 Gal. Gas/Elec. DSI Water Htr. (N/A XLT)
- 12V Fan in Bedroom & Kitchen
- Extreme Weather Protection Package
- 15,000 BTU Air Conditioner (LR)
- Max Vent Fan in Kitchen (Adv. Pro.)
- Ceiling Fan (N/A XLT & Bunk Models)
- 8 cu. ft. Refrigerator w/6 Panel Inserts
- Quick Release TV Bracket in Bdrm (Adv. Pro.)
- Washer/Dryer Prep (Adv. Pro.)
- Cedar Lined Closet (Adv. Pro.)
- Linen Closet in Bath (N/A w/Premium Pkg.)
- Halogen Lights in place of Pancake Lights
- Upgrade Dinette Light
- Deluxe Kitchen Faucet w/Pull-Out Sprayer
- Battery Disconnect (XLT)
- Fold-Down Bulkhead Wall (XLT)
- Aluminum Bumper Wrap (XLT)

Aztec Edition Luxury Package
(Optional on Advanced Profile & XLT only)

- Champagne High Gloss Exterior
- Painted Front Cap, Wheel Wells & Skirt Metal
- Leather-Touch Hide-A-Bed Sofa (XLT)
- Air Mattress Hide-A-Bed Sofa (Adv. Pro.)
- Leather-Touch Recliners IPO Euro Chairs (N/A Bunk Models)
- Hidden Security Safe
- ABS Hitch Pin Cover
- Color Matched Power Awning
- 16" Aluminum Wheels
- Pillow-Top Mattress
- Freestanding Dinette w/4 Chairs
- Cabinet over Bed (Adv. Pro.)

Additional Options

Premium Edition Enhancement Package
(Optional on Advanced Profile only)

- Solid-Surface Bath Lavatory w/Vessel Sink
- Decorative Overhead Bar Light
- One pc. Fiberglass Shower in place of Neo-Angle Shower
- Solid Surface Kitchen Countertops
- Electric Fireplace (N/A w/Bunks)
- Full View Entry Door w/Keyless Entry & Shade
- Central Vacuum System
- Pencil-Tile Backsplash in Kitchen & Bath
- Wood Framed Closet Doors
- 30" Microwave Oven

- Generator Prep
- 5.5 kW Onan Generator
- 12V Heat Pads for Holding Tanks
- Thermal Pane Windows
- 42,000 BTU Furnace Upgrade
- Mor/Ryde Heavy Duty Pin Box
- Slide Room Awning Toppers
- 4-Point Fully Automatic Leveling Jacks
- Power Rear Stabilizer Jacks
- Fiberglass Molded Rear End Cap
- Exterior Kitchen (Bunk Models only)
- 12 Cu. Ft. 4-Door Refrigerator (33FRET, 33FSBI, 33FRLQ, 34FRSI, 36FBQS, 36 FLRB)
- 30" Over-the-Range Convection Microwave
- 42" LCD TV (LR) (33FRET, 33FSBI, 33FRLQ, 34FRSI, 36FBQS, 36 FLRB)
- 32" LCD TV
- 26" LCD TV (TTs & Sport Models)
- 19" LCD TV w/DVD (Bedroom)
- "Sit'n Play" Sofa or Kids Kube (Bunk Models)
- Pillowtop King Bed (70" x 80")
- Wood Plank Vinyl Flooring
- Dark Cherry Stained Cabinetry
- 5-Function Wireless Remote Control
- "Champagne" Filon Exterior Fiberglass
- Mega Booth in place of Dinette & Sofa
- Bedroom Inside/Outside TV Bracket

Popular Travel Trailer Options

- Stove Cover
- Shower in place of Tub
- Power Front & Rear Stabilizer Jacks
- Swing-Away Grab Handle for Rear Door
- Power Front Tongue Jack
- Glass Shower Enclosure
- Bumper-Mount Fold-Down Bike Rack
- Fully Enclosed & Heated Underbelly

Ask your Canyon Trail Dealer about all the options you can choose to make your new Canyon Trail perfect for your lifestyle.

Specifications

Advanced Profile

	30FRLW	32FRBW	32FBHT	33FSBI	33FRET	33FRLQ	34FRSI	36FBQS	36FLRB	37RBDS
Length Overall	34'1"	36'2"	36'	36'8"	36'8"	37'7"	36'8"	40'	40'	41'
Width	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"
Ext. Height w/A/C	12'10"	12'5"	12'7"	12'10"	12'10"	12'9"	12'10"	12'11"	12'11"	12'7"
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	15'	16'	18'	15'	15'	16'	15'	18'	21'	18'
GVWR (lbs)	14,250	12,430	14,020	14,310	14,080	14,210	14,310	14,730	TBA	14,050
Dry Weight (lbs)	9,610	9,728	9,697	10,310	9,963	10,512	10,310	11,941	TBA	11,860
Hitch Weight (lbs)	2,250	2,030	2,020	2,310	2,080	2,210	2,310	2,730	TBA	2,050
Cargo Carry. Cap. (lbs)	3,100	2,642	4,263	3,940	4,057	3,638	3,940	2,609	TBA	2,130
Fresh Water (gal)	60	60	60	60	60	60	60	60	60	60
Grey Water (gal)	80	80	80	80	80	80	80	80	80	80
Black Water (gal)	40	40	80	40	40	40	40	80	40	80
Axle Rating (lbs/axle)	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Tire Size	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	225/80R15	225/80R15	235/80R16
Furnace (BTUs)	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	10	10	10	10	10	10	10	10	10	10

XLT Series

	27FREL	27FRET	30FSES	31FBHS	32FRTG
Length Overall	29'11"	31'1"	33'11"	35'7"	37'3"
Width	96"	96"	96"	96"	96"
Ext. Height w/A/C	11'9"	11'6"	12'1"	12'	12'5"
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	19'	14'	14'	17'	15'
GVWR (lbs)	9,900	10,790	12,240	12,140	11,960
Dry Weight (lbs)	7,601	8,762	8,718	9,487	8,644
Hitch Weight (lbs)	1,390	1,990	1,840	1,740	1,560
Cargo Carry. Cap. (lbs)	2,239	1,968	2,462	2,593	3,256
Fresh Water (gal)	60	60	60	60	60
Grey Water (gal)	80	80	80	80	80
Black Water (gal)	40	40	40	80	40
Axle Rating (lbs/axle)	4,400	4,400	5,200	5,200	5,200
Tire Size	225/75R15	225/75R15	235/80R16	235/80R16	225/75R16
Furnace (BTUs)	35,000	35,000	35,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	6	6	6	6	6

Sport Series

	25FRLW	26FRKW	28FBHB
Length Overall	29'10"	29'1"	31'6"
Width	96"	96"	96"
Ext. Height w/A/C	11'10"	12'1"	12'4"
Main Slide Height	6'2"	6'2"	6'2"
Awning Size	15'	17'	15'
GVWR (lbs)	9,900	9,900	9,900
Dry Weight (lbs)	7,140	7,550	7,610
Hitch Weight (lbs)	1,440	1,440	1,320
Cargo Carry. Cap. (lbs)	3,040	2,290	2,290
Fresh Water (gal)	45	60	60
Grey Water (gal)	40	80	80
Black Water (gal)	40	40	40
Axle Rating (lbs/axle)	4,400	4,400	4,400
Tire Size	225/75R15	225/75R15	225/75R15
Furnace (BTUs)	30,000	30,000	30,000
LP Capacity (lbs)	2 x 20	2 x 20	2 x 20
Water Heater Cap. (gal)	6	6	6

Luxury Travel Trailers

	265BHS	288RLS	301RKS	302RKS	321TBS	32TBHT	34TRLW
Length Overall	29'11"	32'3"	33'7"	34'8"	35'8"	37'10"	37'7"
Width	96"	96"	96"	96"	96"	96"	96"
Ext. Height w/A/C	11'6"	10'9"	11'6"	11'6"	10'9"	11'5"	12'
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	17	19	16	18	15	13'	17'
GVWR (lbs)	9,580	9,630	11,356	11,420	11,250	11,290	13,420
Dry Weight (lbs)	5,770	6,930	6,870	7,420	7,850	9,041	9,119
Hitch Weight (lbs)	780	930	950	1,020	850	890	1,420
Cargo Carry. Cap. (lbs)	1,825	4,400	3,187	2,400	3,300	2,209	4,241
Fresh Water (gal)	54	54	54	54	54	60	60
Grey Water (gal)	37	74	37	37	37	80	80
Black Water (gal)	37	37	37	37	37	40	40
Axle Rating (lbs/axle)	4,400	4,400	5,200	5,200	5,200	5,200	6,000
Tire Size	225/75R15	225/75R15	225/75R15	225/75R15	225/75R15	225/75R15	235/80R16
Furnace (BTUs)	30,000	30,000	30,000	30,000	30,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	6	6	6	6	6	10	6

Specifications are approximate and subject to change. For actual measurements, check the weight sticker in your unit.

More than sixty years of experience, quality and innovation are Standard Features of your new Canyon Trail.

Visit www.yellowstonervs.com or scan the code to see the latest pictures, specifications and floorplans.

With a rich history dating back to 1948, Yellowstone RV, known for superior insulation, great storage and innovative floor plans, became part of one of the largest family-owned independent manufacturers in North American in 1987. Located in the heart of Amish country, the Yellowstone facilities are a self-contained part of a 200 acre complex using state-of-the-art production technology.

Yellowstone employees receive ongoing quality and innovation training, fostering the most creative culture in the RV industry. Coupled with the drive to improve is the desire to retain the legacy of craftsmanship that reaches deep into Yellowstone history.

The carefully balanced combination of history and innovation makes Yellowstone RV the premier manufacturer of high-quality, high-style fifth wheels and travel trailers, distributed throughout North America by a network of independent Dealers who are trained and focused on exceeding customer expectations.

Compare and you will see the exceptional value of premium quality and uncompromising customer service you get with Canyon Trail.

24 MONTH WARRANTY
ON STRUCTURAL & ELECTRICAL COMPONENTS

Our exclusive Yellowstone RV Warranty gives you double the protection with two years of coverage on key structural components of your new Canyon Trail. That extended protection is also offered to Canyon Trail Owners by many of the manufacturers that supply compoenents for Sedona units, including the refrigerator, antenna, furnace, water heater, air conditioner, awning, range, microwave and more. See the Official Warranty for details and restrictions.

EZ TURN
AERO-DYNAMIC DESIGN FOR SAFER AND EASIER TURNING

BUILT IN NORTH AMERICA
NORTH AMERICAN MATERIAL CONTENT
88%-92% DEPENDING ON MODEL

YELLOWSTONE RV

Experience a Yellowstone RV in person at an Authorized Yellowstone RV Dealer near you. For Dealer locations, floor plans, features and options, visit www.YellowstoneRVs.com. Yellowstone RV is a division of Sea Hawk Recreational Vehicles, Inc. and Gulf Stream Coach, Inc. Yellowstone RV reserves the right to change or modify pricing, floor plans, specifications, features, options, dimensions and materials without notice or obligation. Images may vary from the actual plans available and may include options, equipment, products, features and materials that may be additional cost options.While every effort is made to prevent typographical errors, we are not responsible for errors and/or omissions. (c) 2013 Yellowstone RV, LLC Nappanee, IN #SED012013

Your Authorized Canyon Trail Dealer:

SEDONA

Fifth Wheels and Travel Trailers

YELLOWSTONE RV

EXHIBIT 6

SEDONA

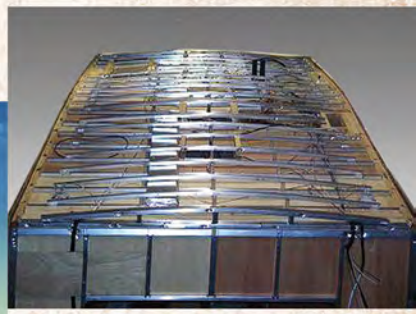
Inside and out, top to bottom, seen and unseen, your new Sedona is built and equipped like no other. Shown below, a few of the many standard features and options that create our unique combination of luxurious style and top-quality construction. Ask your Dealer for details.

Our unique 'Rock Wall' Entertainment Center, featured in several floor plans.

Residential stainless double-bowl sink with high-arch pull-out sprayer faucet.

Central control panel with light and slide switches, tank monitors, awning, water heater and pump controls.

Unique XLT Extended Hitch Pin for maximum turning clearance on short bed trucks; optional ABS Hitch Cover.



Welded square-tube aluminum frame is strong, lightweight and durable.

Optional electric fireplace adds warmth on chilly mornings and charm anytime.

Multi-burner gas range highlighted with optional pencil-tile backsplash.

"Soft Rainfall" oversized shower head featured in Premium Edition Models.

Seamless 12" deep ABS storage chest under bed helps keep items clean and odor-free.

Huge pass-through basement with fold-down bulkhead wall to separate and organize cargo.

Multi-source, multi-speaker sound and video system with DVD, USB and SD memory card slots.

Keyfob actuator for optional keyless remote security system.

Optional countertop glass vessel wash basin and brushed stainless steel tap, featured in Premium Edition Models.

Heated and insulated basement keeps bath and bedroom floor warmer.

Rear mount 2" hitch receiver for small trailer or bumper gear rack.

33FRLQ "Atrium" Room with Rock Wall Entertainment Center

No One Gives You More

Stunning elegance. Extraordinary convenience. Your needs anticipated and met; your expectations exceeded. That's the legacy of Sedona.

More than a feast for the senses though, your Sedona is a cozy refuge; a rock-solid outpost of security and rugged durability.

Our unique combination of luxurious style and top-quality construction makes every Sedona an unbeatable value.

From our economical new Sport Series to our premium Executive Edition, Sedona has a Fifth Wheel or Travel Trailer that is perfect for you.

Extraordinary Fifth Wheels and Travel Trailers

33FRLQ Kitchen

Optional J-Lounge

Advanced Profile

Giving you a combination level of luxury and spaciousness unseen anywhere else, Sedona Advanced Profile Floor Plans provide full-profile headroom and comfort using a unique chassis with sophisticated on-the-road performance, precise maneuverability, and all the storage space you've always wanted.

Sumptuous Master Suite Bedroom Slide with Mirrored Closet Doors.

Stylish and functional Island Kitchen with Standard Light Maple Cabinetry and Optional Solid Surface Countertops. Model 36FBQS shown.

Unique full-width Master Bath in the Model 36FBQS.

Free-Standing Dinette in Optional Dark Cherry.

Sun-filled 36FBQS with Air Mattress Sofa and optional Leather Recliners.

The Advanced Profile platform is ideal for the most luxurious and innovative ideas in the Fifth Wheel industry, from cabinetry to electronics, floor plans to furnishings.

XLT Series

Your Short Bed Pickup is the ideal tow vehicle for our specially engineered XLT Series Fifth Wheels. With a lower profile, lightweight aluminum-frame, aerodynamic fiberglass front cap, and our exclusive extended hitch pin, you can enjoy Sedona quality and easy towing to a friendly campground near you or a wilderness escape across the continent.

Luxurious full size Queen Bed and huge Wardrobe Slide are standard in every XLT Floor Plan.

Sun-filled Atrium Slide with Freestanding Dinette and overstuffed Leather-Touch Recliner - Shown in the Model 27FRET.

Our impressive "Rock Wall" Entertainment Center with optional Electric Fireplace; one of the many ways to entertain family and friends in your 27FRET.

XLT Kitchens are functional and stylish, with generous counters, plenty of cabinets, and top quality appliances. 27FRET shown.

You can settle for less from other manufacturers - but with the Sedona XLT Series, you don't have to!

Luxury Trailers

Your search for a truly rugged, truly luxurious travel trailer is over: Sedona has put everything it knows about building the world's best Fifth Wheels in to its unique Luxury Travel Trailers. If you want Sedona quality in a flat-floor towable, you've found it!

The Island Kitchen you've always wanted, adorned with hardwood cabinetry - The perfect stage for preparing casual family meals and enteraining friends. Model 32TBHT shown.

Sport Series

The perfect starting point for a better life, the economical new Sport Series means you can own a Fifth Wheel with a heritage of luxurious quality. With the new Sport Series, it doesn't cost more to step up to legendary Sedona quality

- It costs LESS!

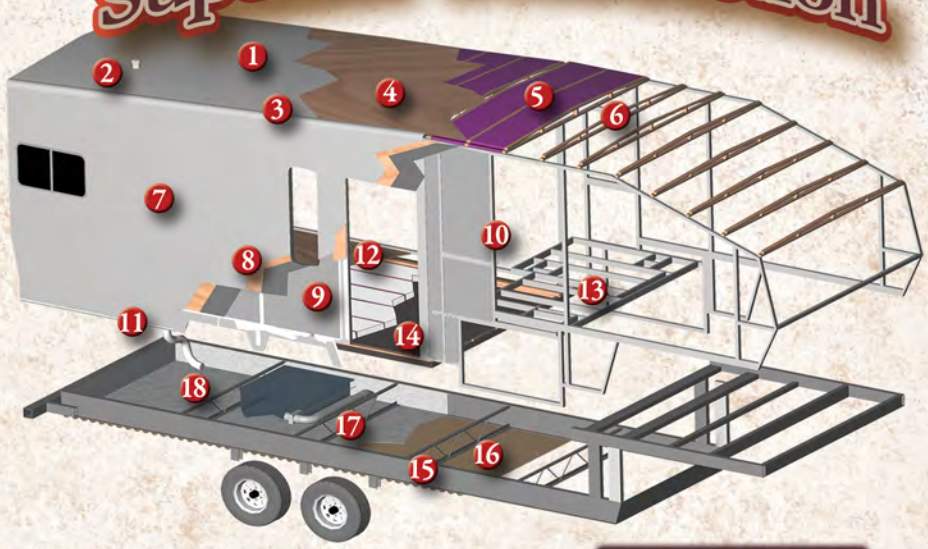
Our Luxury Travel Trailers feature gracefully appointed interiors, subtly stylish decors, and ingenious floor plans built with the rock-solid construction advantages of Sedona.

Kitchen, Dining Area and Living Room work together in the 32TBHT.

Invite the young campers to join you. Several floor plans feature Bunk Rooms ready for the latest electronic toys.


26FRKW Rear Kitchen in Bayridge Maple

Superior Construction



Yellowstone owners enjoy skilled craftsmanship combined with the latest innovations in materials and construction.


26FRKW Living Area with optional Hide-A-Bed Sofa


Optional Freestanding Dinette Table & Chairs


Standard Queen Bed with Headboard

ROOF

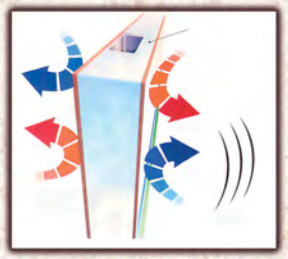
1. Crowned Roof improves drainage
2. Attic Vent for improved moisture control
3. Seamless One-Piece Rubber Roof w/12-Year Warranty
4. 1/2" Roof Decking
5. Thick Blanket of Fiberglass Insulation (R-14 standard, R-28 w/optional Extreme Weather Protection Package)
6. 5" Bowed Roof Trusses, 16" on center

SIDEWALL

7. Vacuum Bonded Sidewall
8. Thick Composite Waterproof Panel Backer
9. High-Density Block Foam Insulation (R-14 w/Thermal Barrier Construction
10. Welded Aluminum Wall Studs
11. Full Radius Fender Skirt Metal

FLOOR & SUB-BASEMENT

12. 5/8" Seamless Floor Decking
13. 3" Floor Joists, 14" on center
14. Protective Vapor Barrier
15. 8" to 12" I-Beam Corrosion-Coated Main Rails
16. 100% Enclosed & Heated Underbelly with Heated Basement & Heated Rotocast Tanks
17. Spaced Rod & Angle w/Z-Bar Supports
18. R-32 Enclosed Heated Holding Tank Space



EXTREME WEATHER PROTECTION (Optional)

Upgrade your Sedona to true four-season capability

ROOF: R-28

* Fiberglass batts, continuous triple layer vapor barrier, attic vents, and radiant reflective film for up to R-28 depending on outside temperature

WALLS: R-14

* 2 lb. density polystyrene in composite sidewalls; endwalls w/fiberglass batts

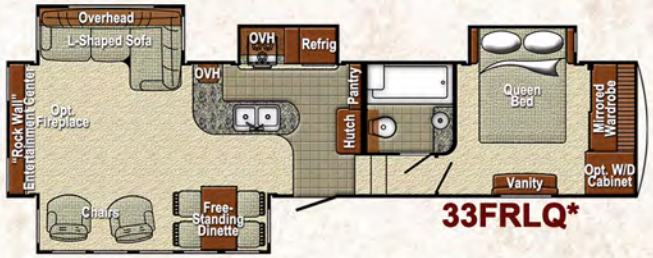
FLOOR: R-32

* Batt insulation in floor cavity, double ply vapor barrier w/97% reflectivity, R-32 heated holding tank area, fully enclosed heated basement, tanks & dump valves, R-14 thermal foil under bath & bedroom floor decks, Sedona exclusive insulated R-14 frame rails to reduce thermal conduction

Advanced Profile

Full-Profile Fifth Wheels with 6'5" Bedroom ceilings, enormous storage space

30FRLW



33FRLQ*

32FRBW

34FRSI*

32FBHT

36FBQS*

33FSBI

36FLRB*

33FRET

37RBDS

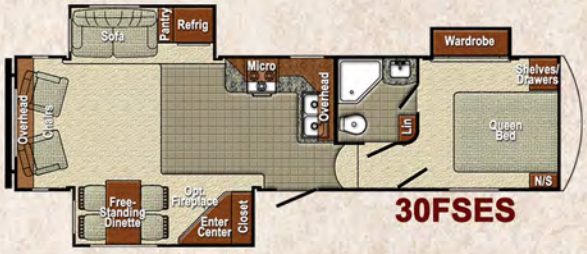
*Shown with Premium Edition Bathroom

XLT Series

Low-Profile Fifth Wheels for your Short Bed Pickup

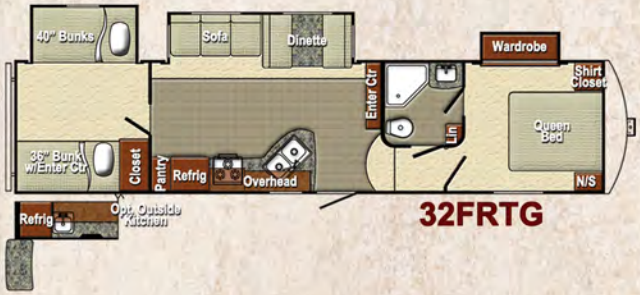
27FREL

27FRET



30FSES

31FBHS

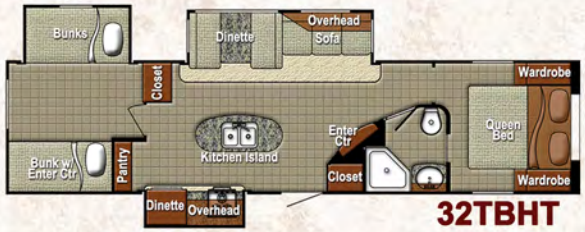


32FRTG

Luxury Trailers

Flat-floor Luxury Trailers built to rugged Sedona Fifth Wheel standards

265BHS

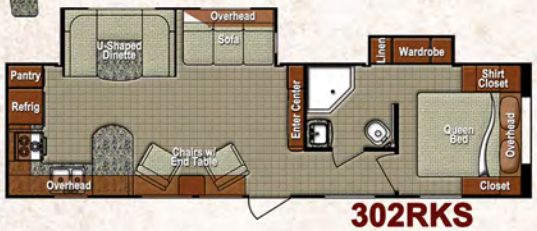


32TBHT

288RLS

34TRLW

301RKS



302RKS

321TBS

Sport Series

Our most-affordable Fifth Wheels, Half-Ton towable; economical fun

25FRLW

26FRKW

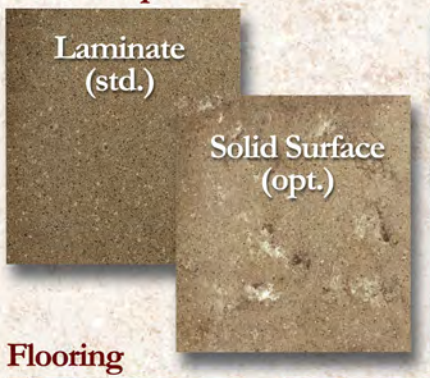
28FBHB

Decor Choices

Yellowstone RV Interior Designers have done their work, providing you with beautiful, stylish, premium-quality interior decor choices.

Fabrics

Countertops



Cabinetry

Flooring

Standard Features

	ADV	XLT	SPT	TT
Interior				
Legacy Plus Stain & Cold Proof Vinyl	•	•	•	•
Multi-Colored Carpet w/3/8" Pad (LR/BR)	•	•	•	•
Steel Header Over Slide Rooms	•	•	•	•
"Leather Touch" Ceiling Panels	•	•	•	•
Hardwood Cabinet Trim	•	•	•	•
Bayridge Maple Cabinet Doors & Drawers	•	•	•	•
Crown Molding Trim at Ceiling	•	•	•	•
Laminate Countertops	•	•	•	•
Slide Out Facia - Bayridge w/Accent	•	•	•	•
Brushed Nickel Cabinet Hardware	•	•	•	•
Mocha Diamond Tile Backsplash	•	•	•	•
Framed Bath & Bedroom Doors	•	•	•	
Trash Can (Kitchen)	•	•		
Decorative Glass Door Inserts			•	•
Bronze Wave Glass Door Inserts	•	•		
Recessed Shoe Box (Bdrm Closet)	•			
Wood Shelf w/Valet Rod in BR Closet	•			
Heating, Cooling & Plumbing	ADV	XLT	SPT	TT
Water Heater By-Pass Valve	•	•	•	•
Whole Coach Water Purifier Filter	•	•	•	•
Black Tank Flush	•	•	•	•
Water Management System	•	•	•	•
Wall Mount Fire Extinguisher	•	•	•	•
"Max Vent" Slider Windows	•	•	•	•
E/Z Winterization System	•	•	•	
6 Gal Gas/Electric DSI Water Heater		•	•	•
35,000 BTU Furnace	•	•		
30,000 BTU Furnace			•	•
Heat Duct for Basement Area	•	•	•	
Second A/C Prep w/Power Vent (BR)	•			
Bath	ADV	XLT	SPT	TT
Medicine Cabinet - Bayridge Maple	•	•	•	•
Lavatory Sink - Parchment	•	•	•	•
Power Bath Vent	•	•	•	•
32" x 32" Parchment Shower Pan & Surround w/Neo Angle Glass Door	•	•	•	•
Heat & A/C Duct in Bath Area	•	•	•	•
Toilet Topper Cabinet	•	•		
Bronze Bath Hardware (Towel Ring, TP Holder)	•	•		
Electrical	ADV	XLT	SPT	TT
Cable/Satellite Ready Dual RG6 Coax	•	•	•	•
Bedside 110V Outlet	•	•	•	•
12V DVD/CD/AM/FM Stereo System w/7 Round Speakers	•	•	•	•
Exterior 110V GFI Outlet (Doorside)	•	•	•	•
65 Amp Power Convertor	•			

	ADV	XLT	SPT	TT
Electrical (continuted)				
Individual Slide Controls at Entry	•	•	•	•
12V Storage Compartment Light (Doorside)	•	•	•	•
Exterior Lights (Patio)	•	•	•	•
Convenience Switch Center w/Door	•	•	•	•
Wall Monitor Panel	•	•	•	•
Smoke Detector	•	•	•	•
Combo LP/CO Detector	•	•	•	•
Dinette Light in Main Slide Out	•	•	•	•
Winegard Digital Antenna	•	•	•	•
Hitch Light	•	•	•	
30 Amp Service w/45 Amp Convertor			•	•
Basememt TV Prep w/110V & Coax Connection	•	•		
50 Amp Service w/Detachable Cord	•	•		
Exterior Battery Compartment (Holds 2 Batteries)	•	•		
Battery Disconnect Switch	•	•		
Furnishings	ADV	XLT	SPT	TT
Pantry w/Shelves (Most Models)	•	•	•	•
Fabric Valances w/Drapes in Bedroom	•	•	•	•
Jack Knife Sofa	•	•	•	•
Booth Dinette	•	•	•	•
Decorative Fabric Headboard (N/A 36FBQS)	•	•	•	
60" x 74" Queen Bed, Bedspread & Pillows			•	•
Swivel Rockers (N/A Bunk Models)			•	•
Flip Down Fabric Headboard w/Storage			•	•
12" Deep ABS Lined Under Bed Storage w/Lift Assist Struts	•	•		
Pots & Pans Drawer	•	•		
4 Drawer Dresser in BR	•	•		
Bookshelf Over Bedroom Headboard	•	•		
Dual Euro Chairs w/Ottoman (N/A Bunk Models)	•			
60" x 80" Innerspring Mattress, Bedspread & Pillows	•	•	•	•
Comfort Bunk Mats (Bunk Models)	•	•	•	•
Appliances	ADV	XLT	SPT	TT
6 cu. ft. Refrigerator	•	•	•	•
Wood Panel Refrigerator Door Inserts	•	•	•	•
Range Hood w/Light	•	•	•	•
3-Burner Range w/16" Oven & Auto Ignition	•	•	•	•
High Arching Dual Lever Faucet (Kit.)	•	•	•	•
Residential Sized Stainless Steel Sink	•	•	•	
(2) Black Sink Covers	•	•		

	ADV	XLT	SPT	TT
Exterior				
Textured Gel Coat Fiberglass Exterior	•	•	•	•
Synthetic Composite Fiberglass Wall Backing IPO Luan	•	•	•	•
Patio Awning	•	•	•	•
Radius Skirt Metal	•	•	•	•
Insulated Basement Storage Door	•	•	•	•
In Bumper Sewer Hose Storage	•	•	•	•
Electric Slide Room Mechanisms	•	•	•	•
30" x 72" Radius Entry Door w/Deadbolt Lock	•	•	•	•
Radius Triple Entry Steps	•	•	•	•
Security light	•	•	•	•
6'2" Height (Main Slide Room)	•	•	•	•
E-Z Lube Axles	•	•	•	•
Front Fiberglass Cap w/LED Docking & Clearance Lights (E-Z Turn)	•	•	•	
Rear Stabilizer Jacks	•	•	•	
Felt Liner (Basement Area)	•	•	•	
Fully Insulated Bulkhead & Gooseneck	•	•	•	
Aluminum Wall & Floor Framing	•	•	•	
15" Radial Tires w/White Mod Rims			•	•
Dedicated Battery Storage	•	•	•	
(2) 30# LP Bottles w/ Auto Change	•	•		•
(2) 20# LP Bottles w/Auto Change			•	
2" Hitch Receiver	•	•		
Roof Ladder	•	•		
Slam Latch Cargo Doors	•	•		
Fold Down Bulkhead Wall in Basement (N/A Gen/Gen Prep)	•	•		
Outside Convenience Center	•	•		
Metal Roof Trusses	•	•		
Extended Hitch Pin for Short Bed Pickup Trucks			•	•
Extended Hitch Pin	•			
Aluminum Bumper Wrap	•			
Crank Down Tire Carrier w/Spare Tire	•			
Undermount Spare Tire		•		
6000 lb. Axles	•			
Equa Flex Suspension	•			
Wardrobe Slide in Bedroom		•		
Battery Tray on Hitch				•
Safety Chains on Hitch				•

Sport Series Only Options

- Spare Tire & Carrier
- 26" LED TV w/Swing Arm
- Rear Ladder
- Wardrobe Slide w/Side Aisle Bath

Options & Packages

Camping with Comfort Package
(Required on Advanced Profile & XLT)

- Six-Sided All Metal Construction (Sidewalls and Upper Deck on Sport)
- Pleated Fabric Shades
- Premium Coil Queen Mattress
- Black Framed Tinted Safety Glass Windows
- Microwave Oven
- 13,500 BTU Air Conditioner
- Swing-Away Grab Handle at Entry Door
- Exterior Speakers
- Outside Shower
- Skylight in Shower
- Porcelain Toilet
- Ball Bearing Drawer Guides w/Full Extension
- Enclosed/Heated Underbelly & Valves
- Propane Quick Connect
- Snap Pins on Front Jack Legs (FW)
- TV Swing Arm Bracket (LR)

Convenience Group
(Optional on Advanced Profile & XLT only)

- 16" Radial Tires w/White Modular Rims
- 10 Gal. Gas/Elec. DSI Water Htr. (N/A XLT)
- 12V Fan in Bedroom & Kitchen
- Extreme Weather Protection Package
- 15,000 BTU Air Conditioner (LR)
- Max Vent Fan in Kitchen (Adv. Pro.)
- Ceiling Fan (N/A XLT & Bunk Models)
- 8 cu. ft. Refrigerator w/6 Panel Inserts
- Quick Release TV Bracket in Bdrm (Adv. Pro.)
- Washer/Dryer Prep (Adv. Pro.)
- Cedar Lined Closet (Adv. Pro.)
- Linen Closet in Bath (N/A w/Premium Pkg.)
- Halogen Lights in place of Pancake Lights
- Upgrade Dinette Light
- Deluxe Kitchen Faucet w/Pull-Out Sprayer
- Battery Disconnect (XLT)
- Fold-Down Bulkhead Wall (XLT)
- Aluminum Bumper Wrap (XLT)

Aztec Edition Luxury Package
(Optional on Advanced Profile & XLT only)

- Champagne High Gloss Exterior
- Painted Front Cap, Wheel Wells & Skirt Metal
- Leather-Touch Hide-A-Bed Sofa (XLT)
- Air Mattress Hide-A-Bed Sofa (Adv. Pro.)
- Leather-Touch Recliners IPO Euro Chairs (N/A Bunk Models)
- Hidden Security Safe
- ABS Hitch Pin Cover
- Color Matched Power Awning
- 16" Aluminum Wheels
- Pillow-Top Mattress
- Freestanding Dinette w/4 Chairs
- Cabinet over Bed (Adv. Pro.)

Additional Options

Premium Edition Enhancement Package
(Optional on Advanced Profile only)

- Solid-Surface Bath Lavatory w/Vessel Sink
- Decorative Overhead Bar Light
- One pc. Fiberglass Shower in place of Neo-Angle Shower
- Solid Surface Kitchen Countertops
- Electric Fireplace (N/A w/Bunks)
- Full View Entry Door w/Keyless Entry & Shade
- Central Vacuum System
- Pencil-Tile Backsplash in Kitchen & Bath
- Wood Framed Closet Doors
- 30" Microwave Oven

- Generator Prep
- 5.5 kW Onan Generator
- 12V Heat Pads for Holding Tanks
- Thermal Pane Windows
- 42,000 BTU Furnace Upgrade
- Mor/Ryde Heavy Duty Pin Box
- Slide Room Awning Toppers
- 4-Point Fully Automatic Leveling Jacks
- Power Rear Stabilizer Jacks
- Fiberglass Molded Rear End Cap
- Exterior Kitchen (Bunk Models only)
- 12 Cu. Ft. 4-Door Refrigerator (33FRET, 33FSBI, 33FRLQ, 34FRSI, 36FBQS, 36 FLRB)
- 30" Over-the-Range Convection Microwave

- 42" LCD TV (LR) (33FRET, 33FSBI, 33FRLQ, 34FRSI, 36FBQS, 36 FLRB)
- 32" LCD TV
- 26" LCD TV (TTs & Sport Models)
- 19" LCD TV w/DVD (Bedroom)
- "Sit'n Play" Sofa or Kids Kube (Bunk Models)
- Pillowtop King Bed (70" x 80")
- Wood Plank Vinyl Flooring
- Dark Cherry Stained Cabinetry
- 5-Function Wireless Remote Control
- "Champagne" Filon Exterior Fiberglass
- Mega Booth in place of Dinette & Sofa
- Bedroom Inside/Outside TV Bracket

Popular Travel Trailer Options

- Stove Cover
- Shower in place of Tub
- Power Front & Rear Stabilizer Jacks
- Swing-Away Grab Handle for Rear Door
- Power Front Tongue Jack
- Glass Shower Enclosure
- Bumper-Mount Fold-Down Bike Rack
- Fully Enclosed & Heated Underbelly

Ask your Sedona Dealer about all the options you can choose to make your new Sedona perfect for your lifestyle.

Specifications

Advanced Profile

	30FRLW	32FRBW	32FBHT	33FSBI	33FRET	33FRLQ	34FRSI	36FBQS	36FLRB	37RBDS
Length Overall	34'1"	36'2"	36'	36'8"	36'8"	37'7"	36'8"	40'	40'	41'
Width	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"	94 1/2"
Ext. Height w/A/C	12'10"	12'5"	12'7"	12'10"	12'10"	12'9"	12'10"	12'11"	12'11"	12'7"
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	15'	16'	18'	15'	15'	16'	15'	18'	21'	18'
GVWR (lbs)	14,250	12,430	14,020	14,310	14,080	14,210	14,310	14,730	TBA	14,050
Dry Weight (lbs)	9,610	9,728	9,697	10,310	9,963	10,512	10,310	11,941	TBA	11,860
Hitch Weight (lbs)	2,250	2,030	2,020	2,310	2,080	2,210	2,310	2,730	TBA	2,050
Cargo Carry. Cap. (lbs)	3,100	2,642	4,263	3,940	4,057	3,638	3,940	2,609	TBA	2,130
Fresh Water (gal)	60	60	60	60	60	60	60	60	60	60
Grey Water (gal)	80	80	80	80	80	80	80	80	80	80
Black Water (gal)	40	40	80	40	40	40	40	80	40	80
Axle Rating (lbs/axle)	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Tire Size	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	235/80R16	225/80R15	225/80R15	235/80R16
Furnace (BTUs)	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	10	10	10	10	10	10	10	10	10	10

XLT Series

	27FREL	27FRET	30FSES	31FBHS	32FRTG
Length Overall	29'11"	31'1"	33'11"	35'7"	37'3"
Width	96"	96"	96"	96"	96"
Ext. Height w/A/C	11'9"	11'6"	12'1"	12'	12'5"
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	19'	14'	14'	17'	15'
GVWR (lbs)	9,900	10,790	12,240	12,140	11,960
Dry Weight (lbs)	7,601	8,762	8,718	9,487	8,644
Hitch Weight (lbs)	1,390	1,990	1,840	1,740	1,560
Cargo Carry. Cap. (lbs)	2,239	1,968	2,462	2,593	3,256
Fresh Water (gal)	60	60	60	60	60
Grey Water (gal)	80	80	80	80	80
Black Water (gal)	40	40	40	80	40
Axle Rating (lbs/axle)	4,400	4,400	5,200	5,200	5,200
Tire Size	225/75R15	225/75R15	235/80R16	235/80R16	225/75R16
Furnace (BTUs)	35,000	35,000	35,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	6	6	6	6	6

Sport Series

	25FRLW	26FRKW	28FBHB
Length Overall	29'10"	29'1"	31'6"
Width	96"	96"	96"
Ext. Height w/A/C	11'10"	12'1"	12'4"
Main Slide Height	6'2"	6'2"	6'2"
Awning Size	15'	17'	15'
GVWR (lbs)	9,900	9,900	9,900
Dry Weight (lbs)	7,140	7,550	7,610
Hitch Weight (lbs)	1,440	1,440	1,320
Cargo Carry. Cap. (lbs)	3,040	2,290	2,290
Fresh Water (gal)	45	60	60
Grey Water (gal)	40	80	80
Black Water (gal)	40	40	40
Axle Rating (lbs/axle)	4,400	4,400	4,400
Tire Size	225/75R15	225/75R15	225/75R15
Furnace (BTUs)	30,000	30,000	30,000
LP Capacity (lbs)	2 x 20	2 x 20	2 x 20
Water Heater Cap. (gal)	6	6	6

Luxury Travel Trailers

	265BHS	288RLS	301RKS	302RKS	321TBS	32TBHT	34TRLW
Length Overall	29'11"	32'3"	33'7"	34'8"	35'8"	37'10"	37'7"
Width	96"	96"	96"	96"	96"	96"	96"
Ext. Height w/A/C	11'6"	10'9"	11'6"	11'6"	10'9"	11'5"	12'
Main Slide Height	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"	6'2"
Awning Size	17	19	16	18	15	13'	17'
GVWR (lbs)	9,580	9,630	11,356	11,420	11,250	11,290	13,420
Dry Weight (lbs)	5,770	6,930	6,870	7,420	7,850	9,041	9,119
Hitch Weight (lbs)	780	930	950	1,020	850	890	1,420
Cargo Carry. Cap. (lbs)	1,825	4,400	3,187	2,400	3,300	2,209	4,241
Fresh Water (gal)	54	54	54	54	54	60	60
Grey Water (gal)	37	74	37	37	37	80	80
Black Water (gal)	37	37	37	37	37	40	40
Axle Rating (lbs/axle)	4,400	4,400	5,200	5,200	5,200	5,200	6,000
Tire Size	225/75R15	225/75R15	225/75R15	225/75R15	225/75R15	225/75R15	235/80R16
Furnace (BTUs)	30,000	30,000	30,000	30,000	30,000	35,000	35,000
LP Capacity (lbs)	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30	2 x 30
Water Heater Cap. (gal)	6	6	6	6	6	10	6

Specifications are approximate and subject to change. For actual measurements, check the weight sticker in your unit.

More than sixty years of experience, quality and innovation are Standard Features of your new Sedona.

Visit www.yellowstonervs.com or scan the code to see the latest pictures, specifications and floorplans.

With a rich history dating back to 1948, Yellowstone RV, known for superior insulation, great storage and innovative floor plans, became part of one of the largest family-owned independent manufacturers in North American in 1987. Located in the heart of Amish country, the Yellowstone facilities are a self-contained part of a 200 acre complex using state-of-the-art production technology.

Yellowstone employees receive ongoing quality and innovation training, fostering the most creative culture in the RV industry. Coupled with the drive to improve is the desire to retain the legacy of craftsmanship that reaches deep into Yellowstone history.

The carefully balanced combination of history and innovation makes Yellowstone RV the premier manufacturer of high-quality, high-style fifth wheels and travel trailers, distributed throughout North America by a network of independent Dealers who are trained and focused on exceeding customer expectations.

Compare and you will see the exceptional value of premium quality and uncompromising customer service you get with Sedona.

24 MONTH WARRANTY
ON STRUCTURAL & ELECTRICAL COMPONENTS

Our exclusive Yellowstone RV Warranty gives you double the protection with two years of coverage on key structural components of your new Sedona. That extended protection is also offered to Sedona Owners by many of the manufacturers that supply compoenents for Sedona units, including the refrigerator, antenna, furnace, water heater, air conditioner, awning, range, microwave and more. See the Official Warranty for details and restrictions.

EZ TURN
AERO-DYNAMIC DESIGN FOR SAFER AND EASIER TURNING

BUILT IN NORTH AMERICA
NORTH AMERICAN MATERIAL CONTENT
88%-92% DEPENDING ON MODEL

YELLOWSTONE RV

Experience a Yellowstone RV in person at an Authorized Yellowstone RV Dealer near you. For Dealer locations, floor plans, features and options, visit www.YellowstoneRVs.com. Yellowstone RV is a division of Sea Hawk Recreational Vehicles, Inc. and Gulf Stream Coach, Inc. Yellowstone RV reserves the right to change or modify pricing, floor plans, specifications, features, options, dimensions and materials without notice or obligation. Images may vary from the actual plans available and may include options, equipment, products, features and materials that may be additional cost options.While every effort is made to prevent typographical errors, we are not responsible for errors and/or omissions. (c) 2013 Yellowstone RV, LLC Nappanee, IN #SED012013

Your Authorized Sedona Dealer:

RIDGELINE - OVERVIEW

The Ultimate Expression Of The RV Builder's Art

With a heritage dating back to 1948, Yellowstone RV, a Gulf Stream Affiliate, knows what it takes to keep experienced adventurers, veteran campers and full-timers comfortable. The Ridgeline Fifth Wheel does that job better than anything else on the market - and does it for a price no one else can approach.

Explore the Stunning New Ridgeline Executive here

GALLERY FLOORPLANS SPECS VIDEO LITERATURE

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EXHIBIT 7

THOR INDUSTRIES

June 23, 2014

Michael Marston
Botkin & Hall, LLP
105 East Jefferson Blvd., Suite 400
South Bend, IN 46601-1913

Re: **Thor v. Gulfstream**
Resolution of Patent Infringement Issues
Your Reference: 557-098

Dear Mike:

I read with disappointment your letter of May 21, 2013. I am surprised that after your "thorough review" you chose to only express a conclusory reply, without any elaboration or detail from which Thor could evaluate the merits of your position.

Gulfstream has infringed upon Thor's patents for several years now with a large volume of illegal product sales, while Thor was otherwise engaged in litigation against Forest River over this technology. Gulfstream was well aware of that lawsuit and waited on the sidelines, so to speak, no doubt to see if Forest River could obtain a court judgment invalidating one or more of Thor's patent claims. However, despite four years of litigation, Forest River did not succeed in doing so. Now, it is simply time that Gulfstream honor Thor's rights under the patents.

Further, as you know the extent of "willfulness" of the accused infringer's conduct must always be considered in the infringement analysis. I would have thought that a thorough response to me, detailing your reasons for the non-infringement "conclusion," would have been intended to help show Thor that Gulfstream actually had bone fide reasons for believing it was not an infringer, and that its actions, even if erroneous, were not "willful" and, therefore, subject to damages including a treble award and fees.

Since receiving your letter, Thor has not only resolved other infringement disputes, but also expanded its own evaluation of the Gulfstream patent infringement issues to assess both Gulfstream's new, model year 2014 product offerings (as publically seen at the September 2013 Open House in Elkhart and in late November at the 2013 R.V.I.A. show in Louisville) and, the overall portfolio of Thor's technology involved here, including the latest patent claims issued on August 13, 2013 to Thor by U.S. Patent 8,505,974.

For example, in my May 14, 2013 letter to Mr. Shea, I informed Gulfstream that Thor owned not

601 East Beardsley Ave. | Elkhart, IN 46514 | Phone: 574-970-7460 | Fax: 574-970-7013 | www.thorindustries.com

EXHIBIT 8

only U.S. Patent 7,278,650, but also "other related intellectual property rights." Unfortunately, your response addressed only the '650 Patent. Obviously, the full scope of legal rights needs to be considered with respect to a more comprehensive solution to the infringement problem, and in more detail, than we did previously.

By way of background, the technology involved here all relates to the "turning radius" issue found in fifth wheel travel trailers, particularly when being towed by short-bed pick-up trucks. There are, of course, several ways to avoid impacting the rear corners of the pick-up truck cab with the front corners of the fifth wheel when making tighter turns. Using long-bed pick-up trucks is one way. Using a long hitch pin extension in short-bed pick-up trucks is another way, and there are several hitch manufacturers which sell such products. Further, there are "sliding hitch" arrangements being marketed for the same purpose. Some suggestion has even been made in the industry that "steerable" or rotatable trailer axles could help solve the problem, although I have not actually seen those on the market as yet. As you would expect, each of these methods of improving the turning radius of fifth wheels has its pro and cons.

What Thor has done, through its Heartland subsidiary and elsewhere, is to focus on a different approach to solving the turning radius problem, namely to avoid the corner collision by changing the shape of the fifth wheel cap and/or chassis. Thor's turning radius technology portfolio includes not only the Heartland inventions, but also the Keystone inventions (such as shown in U.S. Patent 7,938,427) and the Glendale inventions (such as shown in U.S. Patent 6,394,533). Within the Heartland subsidiary itself, it is important to remember that we do not have just the '650 patent, but also four other issued patents directed to turning radius inventions (7,575,251; 7,878,545; 8,162,352; and 8,505,974), and other patent application(s) are pending as well. In fact, as a patent attorney, you may be already aware (since it was published on December 26, 2013 by the United States Patent and Trademark Office in the Official Gazette) in the '522 patent application that the Examiner issued an Office Action on February 25, 2014 indicating that still more claims have been allowed for these inventions. In short, Thor has spent and continues to spend considerable time and effort developing ways to improve the turning radius of fifth wheel trailers, and seeks to protect its technology to the full extent permitted by law.

Various other RV manufacturers have attempted to solve the turning radius issues by making and/or using products, such as the hitch pin extensions or sliding hitches, which do not use Thor's technology. We have no problem with that, and certainly wish them well, although we do not believe that is the best solution available to RV consumers. Some other RV manufacturers have decided to use Thor's approach to improving fifth wheel turning radiuses and are licensees of Thor's technology, using our ideas with our permission.

What Gulfstream has done, however, is to use Thor's technology without Thor's permission, in effect, getting a free ride on our work. We would like that to stop, either by Gulfstream also becoming one of our licensees or by Gulfstream changing its product designs, perhaps to use one of the other turning radius approaches. Obviously, we would prefer that Gulfstream become a Thor licensee and, if it does so, Gulfstream would not have to incur what may be a substantial expense in product redesign. Further, as our licensee, Gulfstream would have access to what we consider to be the best solutions to the turning radius issues, thus allowing it to have a better product to offer to its customers. Finally, if Gulfstream becomes a licensee at this point in time, Thor is willing to "forgive" the liability which would otherwise be due from Gulfstream's extensive past infringement up to the date that the first

license was signed.

Our license to Gulfstream would also shield its dealers from their liability for selling infringing products. As a patent attorney, you are no doubt aware that a patent owner has the legal right under 35 U.S.C. §271(a) to collect damages from "whoever without authority makes, uses, offers to sell or sells any patented invention." Thor, as an RV manufacturer, has never before seen fit to assert infringement claims against any RV dealer who is likely to become a potential purchaser of Thor's RV products. Nonetheless, patent counsel have pointed out that we should, for the sake of our public shareholders' interest, consider if any special circumstances merit an exception to this policy.

Further, the license would also cover, at no additional fee, all patents which later issue to Thor in regard to this technology, including the new patent about to issue from the '522 patent application. You have already seen that five continuation patent applications have been used to supplement and more clearly define the patent rights Thor is asserting. You should expect that if additional patent(s) are needed by Thor, there is a significant likelihood that those would be granted by the U.S. Patent and Trademark Office. Your client, as a licensee, could derive additional benefit from those as well.

I have included some specific examples of infringement below. There are over 100 invention claims in our patent portfolio at present, and it makes little sense for me to run through all of them here, but this sampling will give Gulfstream even more concrete and detailed reasons to reconsider the license.

The turning radius technology is used by Gulfstream on its current fifth wheel travel trailer product lines: Ridgeline, Canyon Trail, and Sedona. Copies of the Canyon Trail and Sedona brochures offered to the public on its internet web site, www.gulfstreamrv.com, are attached for reference. At this time, it appears that web site does not offer corresponding direct-download brochures for the Ridgeline product.[1] In addition, attached are copies of:

1. Canyon Trail and Sedona Features sheets, distributed by Gulfstream, which expressly refer to the "E-Z Turn Fiberglass Front Cap," as highlighted in yellow;

2. An excerpt from what appears to be a "PowerPoint"-type of presentation to Gulfstream dealers/customers emphasizing the "Advanced Profile Fifth Wheel Cap" wherein "the lower front corners are brought back 6" for a better turning radius with short bed trucks;" and

3. A "Ridgeline-Overview" sheet, excerpted from your web site.

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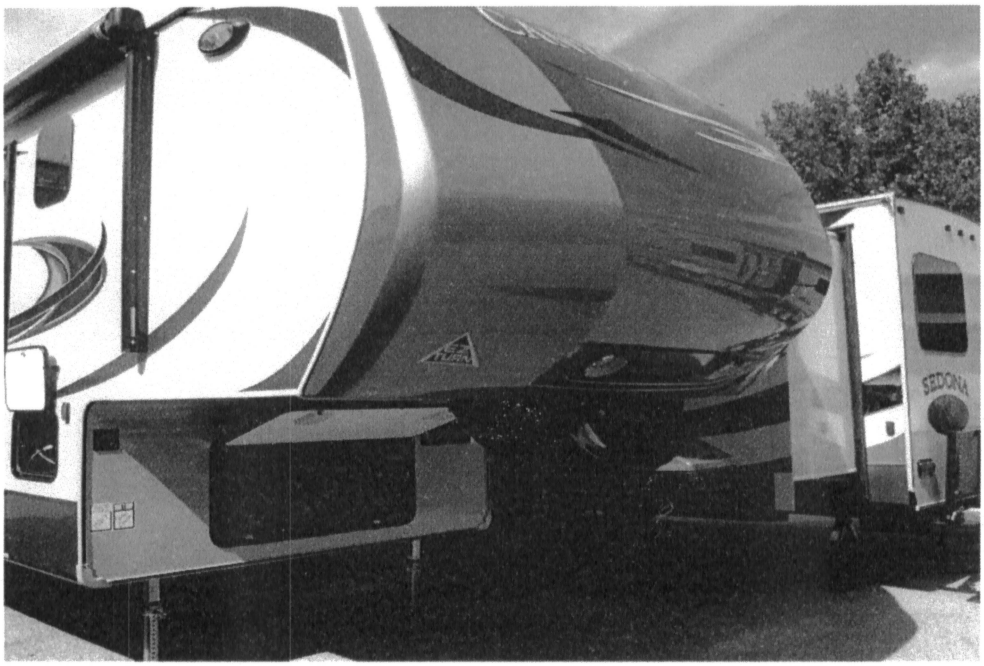
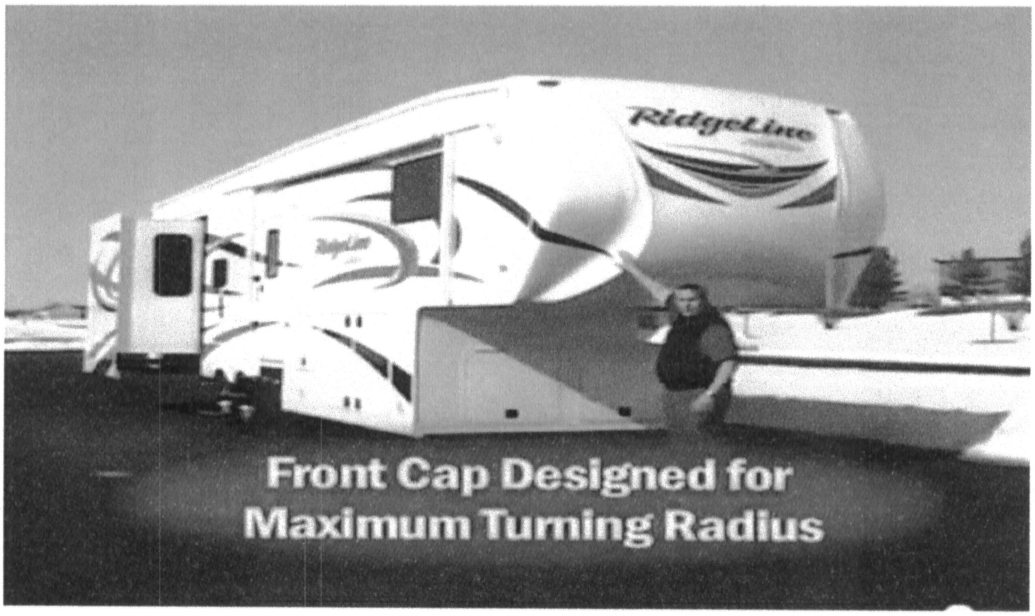
[1] While we sincerely hope that Gulfstream will take this opportunity for an amicable resolution to the infringement issues, in fairness we should point out that the negotiations between the parties have reached the point where litigation is an alternative which could arise if such a resolution is not reached. Accordingly, **this letter should be considered a "litigation hold" notice**, whereby Gulfstream must preserve records (physical and electronic) and items which could reasonably be expected to be needed as evidence in such litigation. Specifically, copies of the documents, YouTube videos, etc. mentioned herein must be preserved by Gulfstream.

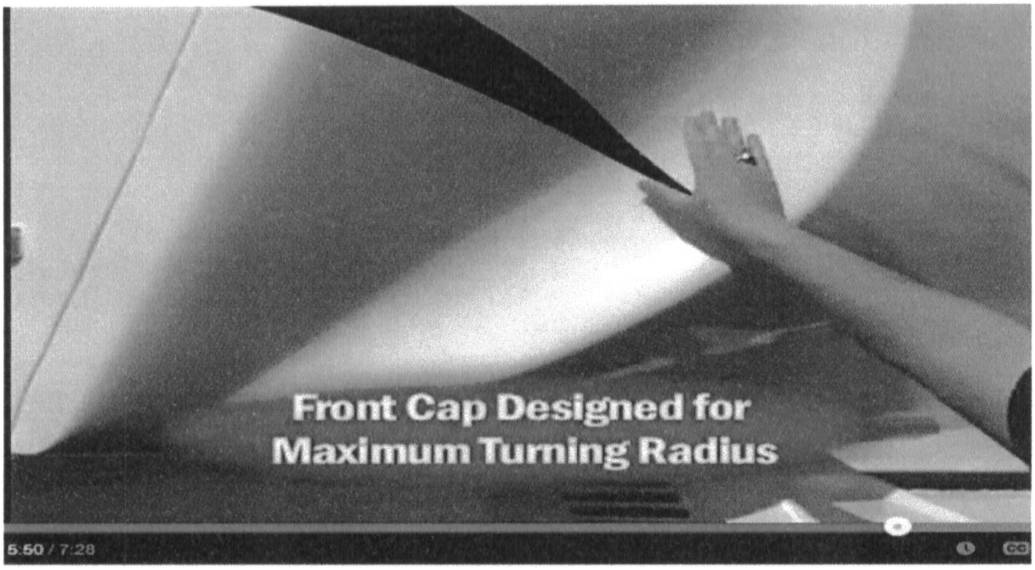
On actual Canyon Trail fifth wheel travel trailers, Gulfstream has marked the location of the "E-Z Turn" feature, at the lower front corners of the trailers, with bright yellow and black triangle decals, as shown in the photograph below:



Further, in a YouTube video featured by Gulfstream on its web site and available on YouTube itself, Mark Spencer, the National Sales Manager for your Yellowstone division, featured the "Front Cap Designed for Maximum Turning Radius" on the Ridgeline trailers, as shown below:



In the audio portion of that YouTube advertisement, Mr. Spencer admitted that the front cap was "cut out" at the lower front corners to allow the towing truck to "nest into the cap to maximize your turning radius," emphasizing that feature with a close up shot of the lower front corners, as shown below:



In summary, we can see clearly from the photographs of these different Gulfstream products that the front end cap portion of these fifth wheel trailers have recessed lower corners which are deliberately shaped to avoid collision with the upper rear corners of a pick-up truck cab. This feature was important enough to Gulfstream in trying to sell its products that it was used in several different product models and repeatedly emphasized to potential purchasers.

However, in the original Heartland patent application for turning radius inventions, released on February 23, 2006, by the United States Patent and Trademark Office as publication 2006/0038379 A1, one of the claimed inventions was:

> 18. A travel trailer configured to be coupled to, and towed by a vehicle, comprises [sic], a compartment attached to a chassis that includes a front end and a rear end, wherein a plurality of wheels are attached to the chassis adjacent the rear end and a hitch assembly is attached to the chassis adjacent the front end, and wherein the compartment at the front end of the chassis forms first and second corners, and wherein a recess is located at each corner edge of the compartment such that cavities formed by each recess may receive a portion of the vehicle while the vehicle is engaged in a turn.

As shown in the photographs, the Gulfstream products described above have each and every feature recited in that claim, and those features are for the same increased turning radius purpose. At the present time, that exact claim has not been included in an issued patent. However, it remains under consideration with respect to one or more pending patent applications and would be infringed by these Gulfstream products, if it does issue into a later patent.

In the meantime, Claim 15 of the '352 patent has issued and defines the following invention:

15. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:
a chassis having a forwardmost edge member,
a compartment defining
a first interior space having a first deck and a first interior height above the first deck, and
a second interior space having a second deck and a second interior height above the second deck,
the second deck being disposed higher than the first deck; and

a cap attached [to] the compartment, the cap including a pair of recessed portions extending upwardly from the forewardmost edge member, and positioned rearward of the forwardmost edge member, to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

The first portion of this claim defines a traditional fifth wheel travel trailer, each of which has a chassis, and each such chassis obviously has a forwardmost edge member of one form or another. Each fifth wheel, by virtue of being a "fifth wheel," has two interior spaces, the forward deck usually being elevated above the rearward deck. Gulfstream's fifth wheel products naturally include these features because they are fifth wheel travel trailers.

As you can see, however, the distinguishing features in the second portion of the claim define the patented invention in the context of fifth wheel travel trailers. In particular, the claimed cap has certain specific recesses, at the particular location with respect to the chassis, which serve to permit the vehicle to make a tighter turn. The Gulfstream fifth wheel products described above have those same corner recesses, also located behind where the forwardmost edge of the chassis would be and extending upward. See, for example, the areas of the caps marked by the yellow and black E-Z Turn decals and pointed to by Mr. Spencer's hand in the illustrations above.

In addition, Claim 34 of the '352 patent defines the following invention:

34. A fifth wheel travel trailer for use with a towing vehicle having a cab, the travel trailer including:
a chassis having a forwardmost edge;
a hitch attached to the chassis and coupled to a mating hitch on the vehicle at a pivot location;
a compartment defining
a first interior space having a first deck and a first interior height above the first deck, and
a second interior space having a second deck and a second interior height above the second deck,
the second deck being disposed higher than the first deck; and
a cap attached to the compartment, the cap including
a middle portion disposed rearward of the pivot location and

a pair of recessed portions extending upwardly from the forwardmost edge, and positioned rearward of the forwardmost edge to provide clearance to permit the vehicle to make a tighter turn without the cab striking the cap.

As to the differences between Claim 15 and Claim 34, each of the accused Gulfstream products also has a hitch with the same features of Claim 34, and the Gulfstream caps have a "middle portion" located above the hitch and behind (or "rearward" of) the hitch pin (seen clearly in the Ridgeline - Overview attachment and also shown in the photograph at the top of page 4 of this letter). Again, the "pair of recessed portions" in the Gulfstream products are found at the areas of the caps marked by the yellow and black E-Z Turn decals and pointed to by Mr. Spencer's hand in the illustrations above (the photograph at the bottom of page 4 and the covers of the attached brochures confirming that each such trailer does indeed have a "pair" of such recesses in each cap).

Further, Claim 1 of the '545 patent defines the following invention:

1. A fifth wheel travel trailer for use with a pickup truck as a towing vehicle, the pickup truck having a bed with a mating hitch and a cab, the travel trailer including:
a chassis having a front end;
a hitch attached to the chassis adjacent the front end and configured to engage the mating hitch at a pivot location; and
a compartment having an upper deck and a pair of outer wall recessed portions located adjacent a front of the upper deck entirely rearward of the pivot location to provide clearance for a portion of the cab so as to permit the pickup truck to make a tighter turn without the cab striking the travel trailer.

Again, the subject Gulfstream products have each of these features as well. Each trailer is built on a chassis (as shown on page 7 of the attached brochures under the "Superior Construction" heading[2]). A hitch is attached to each chassis at the proscribed location and for the same purpose (as seen in Ridgeline - Overview attachment and also shown in the photograph at the top of page 4 of this letter). The compartment has an "upper deck" by virtue of being a fifth wheel travel trailer, and the "pair of outer wall recessed portions" have the proscribed location (as shown by the illustrations in this letter which were described above).

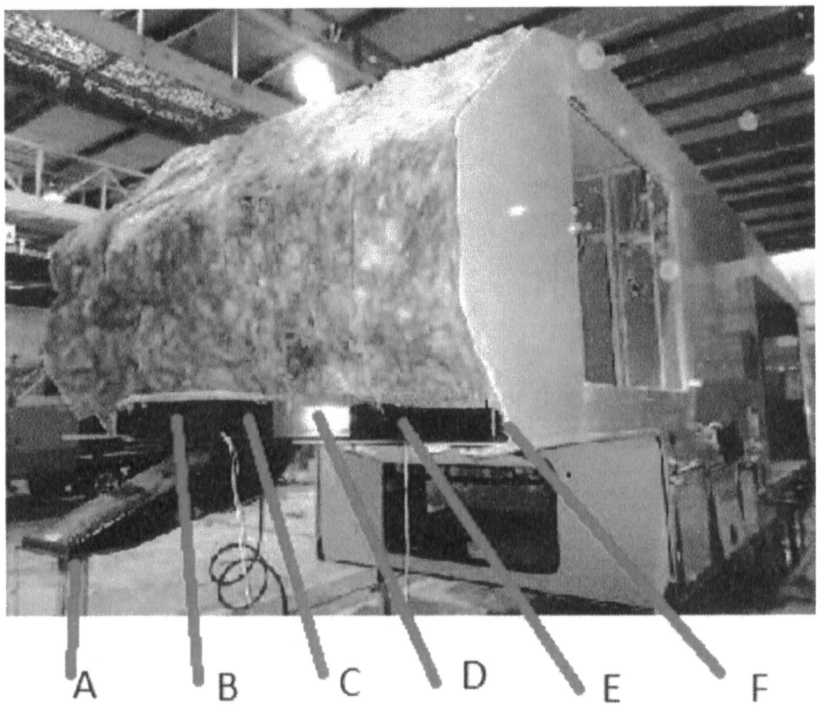
In addition, the brochures and advertisements for these products state expressly that the purpose of the recesses is the same as the claimed purpose in the '352 and '545 patents, to enable the trailer to make tighter turns and avoid collisions between the pickup truck cab and the travel trailer. Thus, it is clear that these Gulfstream products "literally" infringe at least these three patent claims.

As you know, Thor has in its portfolio many other patent claims directed to fifth wheel cap inventions which solve turning radius issues. The analyses with respect to Claims 15 and 34 of the '354 and Claim 1 of the '545 patent are just easy examples for purposes of our discussion. In addition, as you are aware from our earlier correspondence, Thor has also addressed the turning radius inventions from

[2] Interestingly, the chassis of the brochure drawing appears to be a prior frame design, rather than the current one for those products, as evidenced by the photograph of the actual frames in Gulfstream's production facilities, which is discussed below.

the perspective of the fifth wheel chassis itself. In this regard, I would like to revisit our earlier discussion with respect to the '650 patent, in the context of the current fifth wheel chassis design of Canyon Trail products.

The illustration below includes a photograph of a portion of that chassis in Gulfstream's production facility:

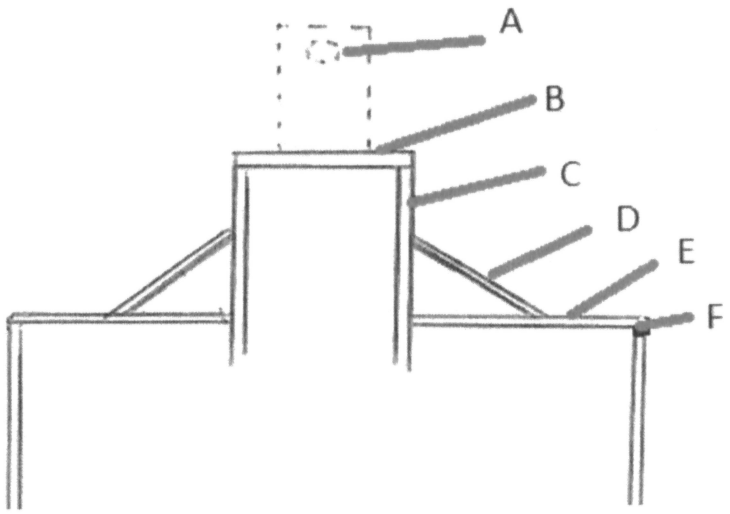


The marked elements in this illustration may be generically described as:

A. The hitch pin,
B. The front edge beam,
C. A cross beam perpendicular to the front edge beam,
D. A diagonal beam between the side beam and the front beam,
E. A cross beam perpendicular to the side beam, and
F. The side frame beam, with its end protruding from the white side wall.

By the way, the photograph in this illustration was obtained without trespass to Gulfstream's property. Your client has provided and/or allowed photographs like this to and/or by its dealers.

For ease of our discussion, below is a sketch of a top view of this chassis:



Previously, I had directed your attention to the '650 patent. Claim 1 of that patent defines an invention having the following elements:

1. A travel trailer chassis comprising:
   a forward edge beam having a first end;
   an outer side frame member substantially perpendicular to the forward edge beam, the outer side frame member having a forward end;
   a first cross beam substantially perpendicular to the side frame member and connected to the forward end of the side frame member at a location rearward of the forward edge beam; and
   a second cross beam substantially parallel to the outer side frame member and connected to the first cross beam and the first end of the forward edge beam.

Comparing the elements of this claim to the illustration and sketch above, we see that:

a. the Gulfstream chassis is a "travel trailer chassis," since all fifth wheels are a type of travel trailer;
b. Front edge beam B is a "forward edge beam," since it is on the forwardmost part of the trailer chassis (as indicated by the location of hitch pin A), and it certainly has "a first end," as one of its two ends;
c. Side frame beam F is an "outer side frame member," since it is on the outside perimeter of the frame and is a member of that frame. Beam F is "substantially perpendicular" to beam B. Beam F also has a "forward end," since it has an end near the forwardmost part of the trailer chassis;
d. Cross beam E is both substantially perpendicular to side frame beam F and is connected to the forward end of that beam, and that connection is rearward of

front edge beam B; and

e. Cross beam C is both substantially parallel to side frame beam F and is connected to both cross beam E and to the end of front edge beam B.

Thus, this frame is completely within the scope of Claim 1 and appears to literally infringe that claim. Your letter of May 21, 2013 implicitly denies this. Without any detail to support that conclusion, I am unable to address any differences in opinion that we may have as it relates to that position.

Obviously, it is possible that Gulfstream is also using other chassis designs for the accused fifth wheel travel trailers. To facilitate resolution of this matter with a minimum of cost (and delay from "paper" flowing back and forth between us), I am certainly willing to meet with you and your client and examine samples each of those actual chassis and let you know where I think the problems arise (if they do) and what can be done to avoid infringement by changes to the chassis designs.

It is possible, under the theory that one cannot infringe an invalid patent, that when you concluded that none of Gulfstream's products infringe, you were instead thinking that the '650 patent was invalid for some reason. If that was the case, it would have been more helpful for you to explain that in your letter. As you are aware, under federal law, 35 U.S.C. §282(a), "a patent shall be presumed valid." This arises because the application process for a patent involves an examination by a specially trained Examiner of the U.S. Patent and Trademark Office ("USPTO"). Once successfully past that examination, Thor is entitled by law to shift the burden of proof of invalidity onto anyone challenging its patent. Here, that would be Gulfstream's burden.

In this case, Thor has gone through an examination process not once, but (so far) six times, in connection with the five (and soon six) Heartland patents recited above. Each time we have become aware of any new significant basis for challenging the validity of one of those patents, the Examiner was presented with that information in the next pending patent application. In each case, a patent was nonetheless granted.

Therefore, if you have some reason to believe that any of these patents is not valid, I would urge you to let me know as soon as possible. We would be happy to present the USPTO with any information you have (assuming it is different from what the Examiner has already seen) and allow the Examiner to consider that evidence as well, in assessing the inventions being claimed by Thor. Obviously, having a specially trained Examiner of the USPTO do this can be far more speedy and cost effective for both parties than arguing the point to a federal judge and jury after full blown litigation.

In summary, despite the fact that we only focused on three Gulfstream product lines and only a few of the patent claims involved, I trust you can see that the license we are offering is a sensible and relatively inexpensive way of resolving what may be quite a few different patent disputes. Each of the patent claims which exist today, and may exist tomorrow for new patents directed to Thor's turning radius inventions, must be compared to each of the different Gulfstream fifth wheel models, as those models have evolved over the past few years and will continue to evolve in next few years.

It is not Thor's desire to engage in unnecessary litigation. It was for this reason that Thor offered the license with a foregiveness of past violation to Gulfstream in the first instance. Having received your conclusory response to that letter, Thor engaged in even more due diligence prior to extending the

offer in this letter. This will be the last time that this offer is extended. While Thor does wish to avoid litigation with a competitor, it also is fully intent on protecting its legal rights. A conclusory response like the last one will force Thor to enforce those rights through litigation. That is a scenario that is both expensive and time consuming. Thor knows this all too well having engaged in extensive litigation with Forest River over this patent previously. The patents survived that litigation and will do the same in any litigation necessitated by Gulfstream's continued unauthorized use of the technology. Thor believes that it and Gulfstream should compete in the marketplace, not the courtroom. But that competition should be fair and Gulfstream's unauthorized use of Thor's patented technology is not fair competition.

For these reasons, I respectfully ask that Gulfstream consider accepting the license we have offered. If Gulfstream still wishes to decline, it is of course free to change its product designs. If neither alternative appeals to Gulfstream, please let me know, in as much detail as you can, the reasons why you think Gulfstream does not infringe upon any of Thor's turning radius technology, be it a matter of claim interpretation or alleged invalidity. Certainly, if we can understand each other better in that regard, whatever litigation is needed may be significantly streamlined through your cooperation. We intend to have this issue resolved within the next thirty (30) days if litigation is to be avoided. If there is any additional information that would assist your client in appreciating Thor's position on this issue, I would be happy to provide it. Further, I reiterate my offer to inspect your client's product with you so that we may actually discuss the aspects that Thor believes to be infringing.

Please contact me with any questions or concerns.

Sincerely,

Todd Woelfer
Senior Vice President, General Counsel & Secretary

THOR INDUSTRIES

May 14, 2013

Ms. Elizabeth A. Ganiere, Esq.
General Counsel
Gulf Stream Coach, Inc.
P.O. Box 1005
Nappanee, IN 46550

RE: **Proposed License of Intellectual Property Rights**

Dear Ms. Ganiere:

I am writing to follow up my letter of March 6, 2013 and your subsequent correspondence of March 13, 2013 in which you indicated that Gulf Stream Coach, Inc. ("Gulf Stream") would be researching this matter and would respond within 30 days.

Absent the License Agreement, Thor will proceed with the protection of its legal rights. In the event that Gulf Stream has elected to refuse to sign the License Agreement, then this letter shall constitute a formal cease and desist demand wherein Thor demands that Gulf Stream cease all unauthorized use of the Patented Technology immediately. Failure to comply with this demand will necessitate legal action by Thor to protect its rights.

It is Thor's desire to avoid unnecessary legal entanglements but not at the cost of allowing Gulf Stream to unfairly compete by continuing to use the Patented Technology without authorization.

Sincerely,

Todd Woelfer
Senior Vice President, General Counsel & Secretary

GULFSTREAM

COACH, INCORPORATED

March 13, 2013

Mr. Todd Woelfer
Thor Industries
601 East Beardsley Ave.
Elkhart, IN 46514

RE: Proposed License of Intellectual Property Rights

Dear Mr. Woelfer:

We are in receipt of your letter dated March 6, 2013. We are in the process of researching this matter and will get back to you within 30 days.

If you have any questions, please contact me at (574) 773-7941 ex. 3117 or email eganiere@gulfstreamcoach.com.

Sincerely,
GULF STREAM COACH, INC.

Elizabeth A. Ganiere
General Counsel

EAG/alc