

Exh. B

Katt, Zellma

From: Scott Tuttle [scott@mail.heartlandrvs.com]
Sent: Monday, March 08, 2004 12:01 PM
To: Greg Cooper
Subject: Heartland Images and Text

Attachments: Photos2.pdf; Photos1.pdf; Drawings.PDF; AN IMPROVED 5TH WHEEL TR#16.doc



Photos2.pdf (741 KB) Photos1.pdf (653 KB) Drawings.PDF (136 KB) AN IMPROVED 5TH WHEEL TR#16.do...

Greg,

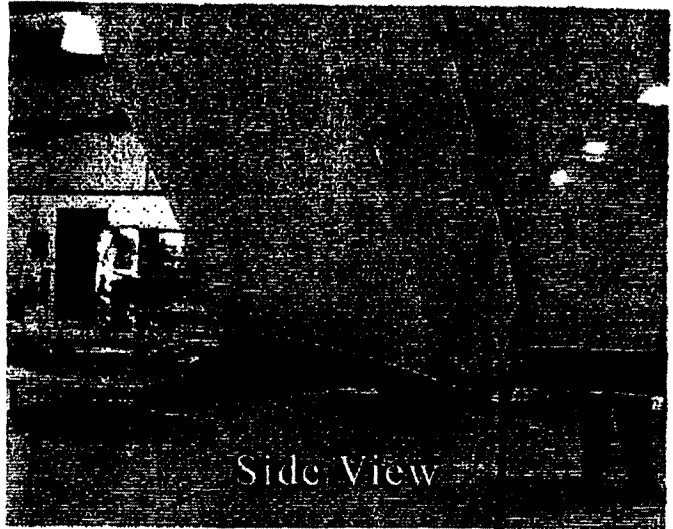
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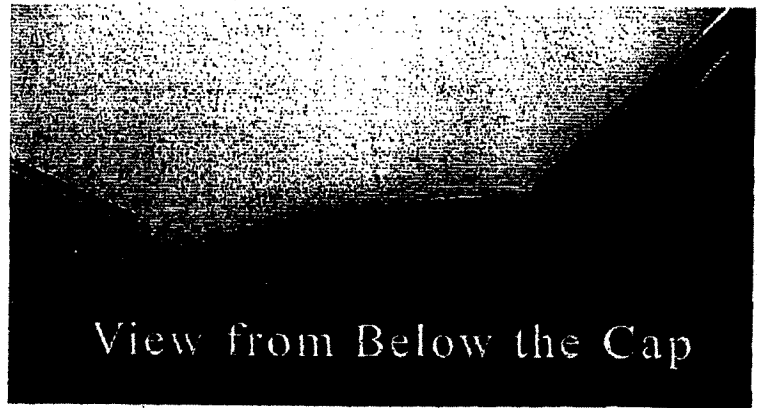
Scott Tuttle



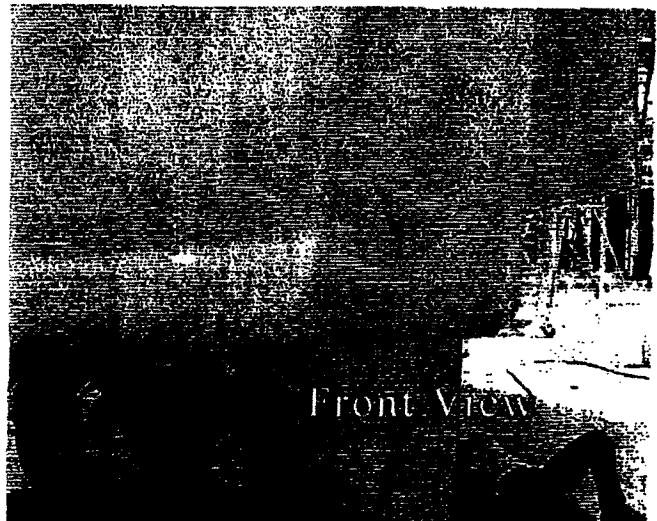
Top View



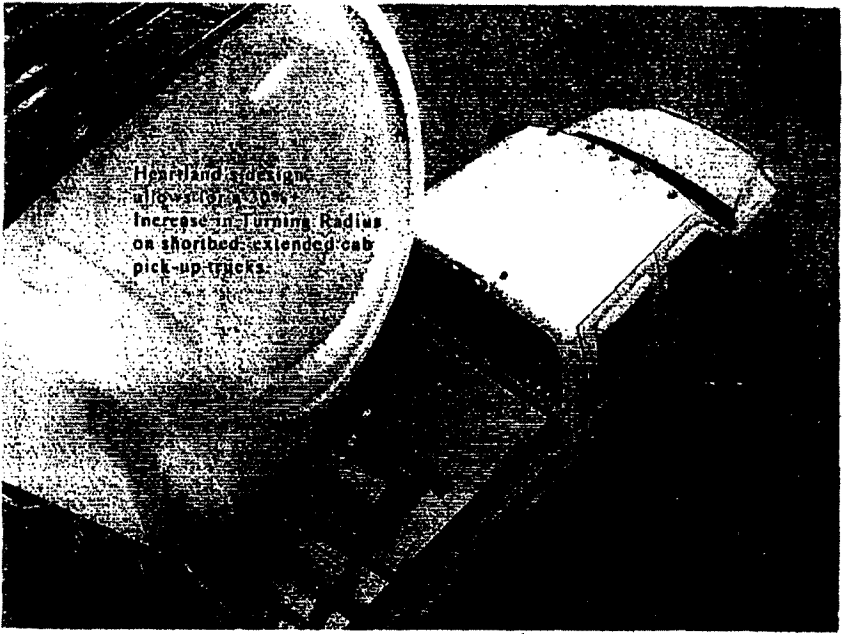
Side View



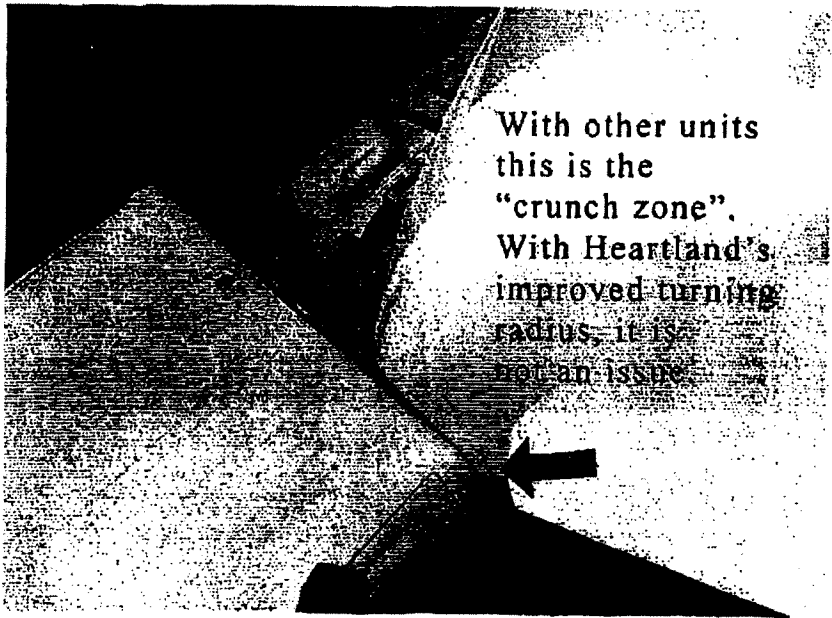
View from Below the Cap



Front View



Heartland's design
allows for a 20%
increase in turning radius
on shortbed, extended cab
pick-up trucks.

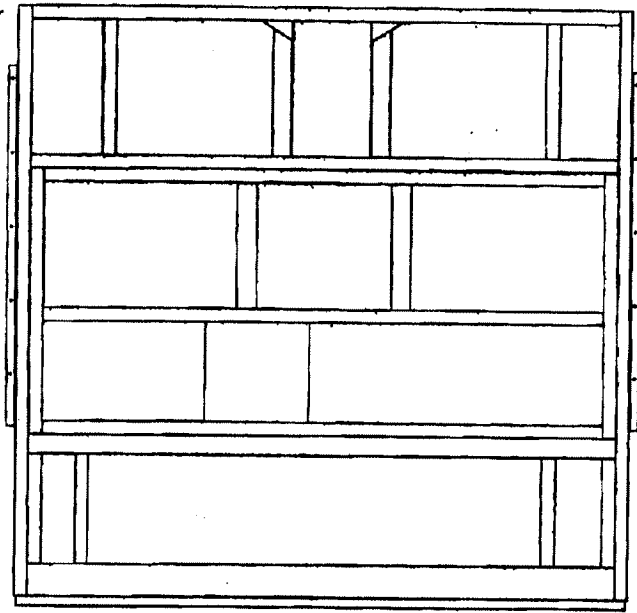


With other units
this is the
"crunch zone".
With Heartland's
improved turning
radius, it is
not an issue.



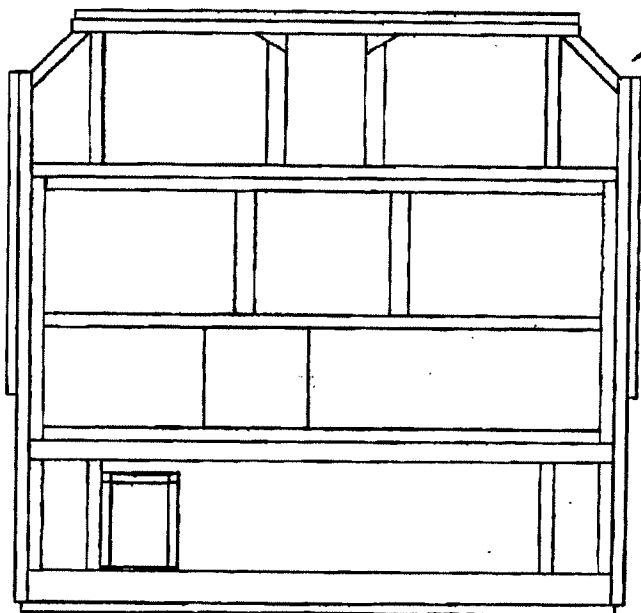
90° ANGLE ON CORNER

FRONT OF COACH



FRONT OF COACH

45° ANGLE AT CORNER



TYPICAL CONSTRUCTION

HEARTLAND CONSTRUCTION

HEARTLAND RV
28868 PAUL DRIVE
ELKHART, IN 46514

HEARTLAND PATENT INFORMATION

DESIGNER: C. MYERS
DRAWING NO. HFP-0001
DATE: _____
REV. 1
LANDMARK SHEET 1 OF 4

ALL DIMENSIONS ARE IN INCHES
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TWO PLACE DECIMAL: ± 0.02"
THREE PLACE DECIMAL: ± 0.005"

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AN IMPROVED 5th

1. ASSEMBLY FOR TRAILER ATTACHMENT

THE PROBLEM:

In today's marketplace (cabs) are becoming more popular as they have become residential garages, and 5th wheel owners would like to tow and parking when necessary. While the new short bed trucks offer comfort, they have a reduced turning radius. The shorter truck bed and fiberglass cap of the front of the truck when the 5th wheel is attached. Because of this diminished turning radius, owners who tow with 5th wheel units of their truck to hit a curb or wall, causing damage to both the truck and the 5th wheel. Warnings and information are found in publications, including:

THE SOLUTION:

Heartland Recreation dramatically improved the turning radius of a 5th wheel unit attached to a 5th wheel unit by rethinking the relationship of the 5th wheel unit to the front of the truck. The first step was cutting them all of the way off the front of the frame back at the front of the truck. By angling the fiberglass front cap that flows back and over the front of the truck, we have established a 30%+ increased turning radius.

(GREG Note: These units are attached to a short bed truck. The fact that they go to improve the turning unit, but the fact that these units attached to short bed trucks on our design to accommodate the solution and design of

TURNING RADIUS OF A FIFTH WHEEL

Trucks with extended cab areas (also referred to as crew cabs) are becoming more popular as they have become residential garages, and 5th wheel owners would like to tow and parking when necessary. While the new short bed trucks offer comfort, they have a reduced turning radius. The shorter truck bed and fiberglass cap of the front of the truck when the 5th wheel is attached. Because of this diminished turning radius, owners who tow with 5th wheel units of their truck to hit a curb or wall, causing damage to both the truck and the 5th wheel. Warnings and information are found in publications, including:

There have been a number of incidents where 5th wheel units have turned or backed up too sharply, causing the cab to hit the fiberglass front cap area – resulting in extensive damage to the wheel and the cab of the truck. This situation is now commonplace in industry publications and manufacturer's vehicle support materials.

Heartland Recreation engineered a unique new 5th wheel concept that dramatically improved the turning radius of a 5th wheel unit attached to a 5th wheel unit by rethinking how the steel frame of the 5th wheel unit relates to the front of the truck. The first step was cutting them all of the way off the front of the frame back at the front of the truck. By angling the fiberglass front cap that flows back and over the front of the truck, we have established a 30%+ increased turning radius.

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2. A MULTI-PURPOSE UTILITY STATION ENCOMPASSED WITHIN ONE SINGLE COMPARTMENT.

THE PROBLEM:

5th wheel trailers typically have up to a dozen separate utility or systems access points and compartments located on the off-door side of the unit. These compartments house everything from outside showers, electrical receptacles, water fills, dump valves, cable jacks, phone jacks, water manifold distribution panels, water tank flush kits and more. With today's 5th wheels featuring two to three slide-out rooms on the off-door side of the unit, these utility/systems doors and compartments are spread out even more - being placed at numerous, hard to reach locations across the off-door sidewall. Because the 5th wheel owner must access most, if not all, of these different compartments and doors to properly utilize their 5th wheel during their camping experience, their varying locations and locking mechanisms have become both problematic and inconvenient. In this particular aspect of 5th wheel living, today's 5th wheels are more inconvenient and user-unfriendly than ever.

THE SOLUTION:

Heartland Recreational Vehicles, LLC has engineered a unique new single door utility area that incorporates nearly all of the systems and access points needed to properly utilize a 5th wheel trailer during the camping experience, dramatically improving the convenience level for our owners. Systems and access points incorporated in the Heartland 5th wheel single door utility area include a hot and cold water manifold distribution center, 110V and 12V electrical power centers, cable TV hook-up, satellite hook-up, phone jack, CAT-5 jack, water fill, tank flush system, quick disconnect water sprayer, pull handles for all holding tanks, liquid soap dispenser, paper towel holder, disposable rubber glove dispenser, a 12V light and more - all in one, conveniently located and accessible compartment! No longer with 5th wheel owners have to get down on their hands and knees to access or operate their coach systems.

(GREG - Note: This concept has been accomplished in some higher end Class A motorhomes (motorized units), but never before in a fifth wheel or travel trailer (towables) unit.)

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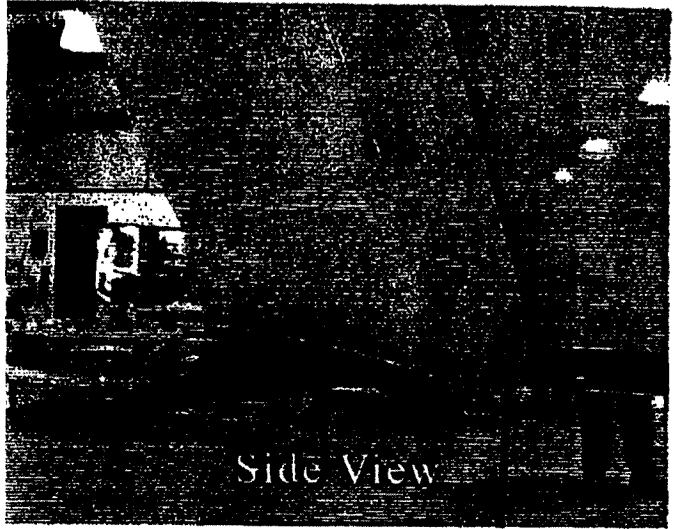
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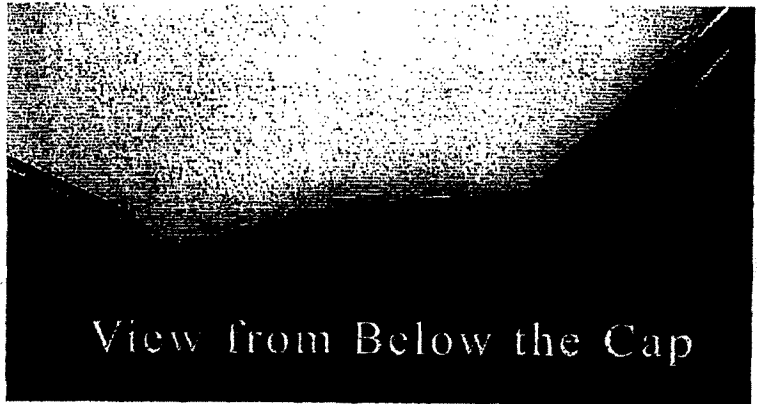
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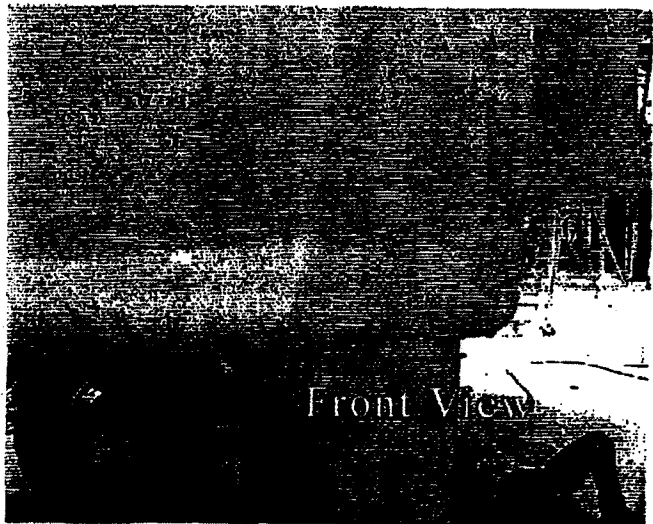
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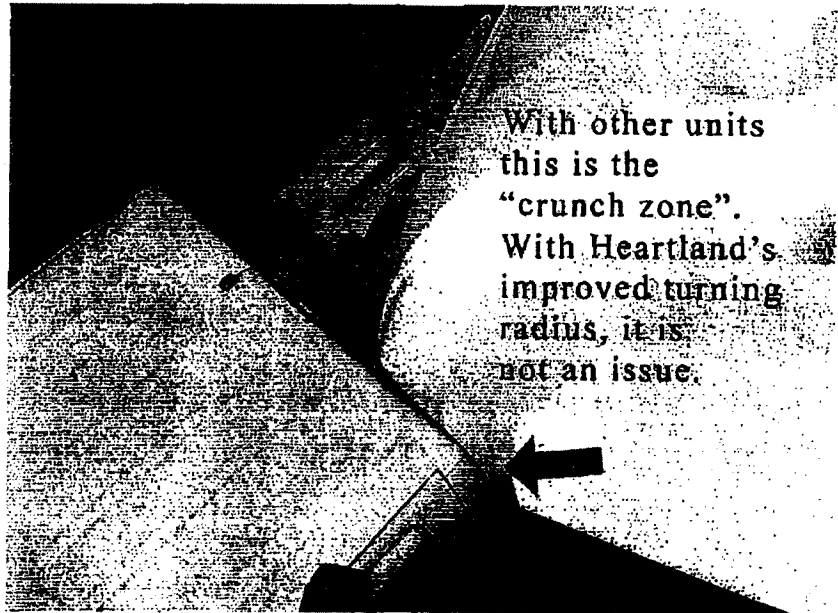
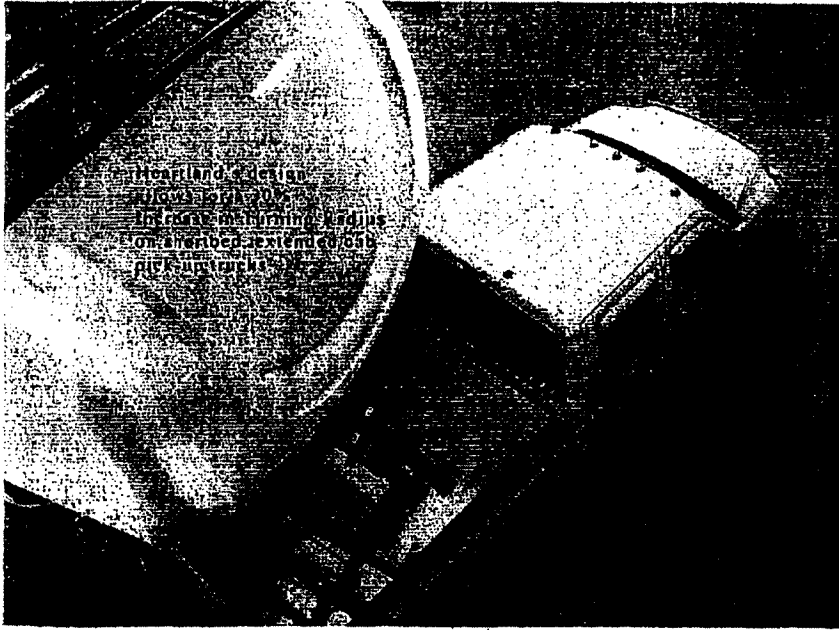
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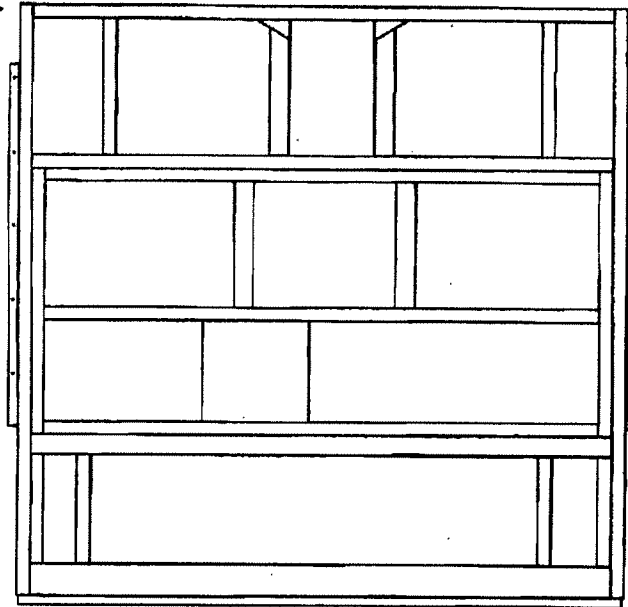
View from Below the Cap



Front View

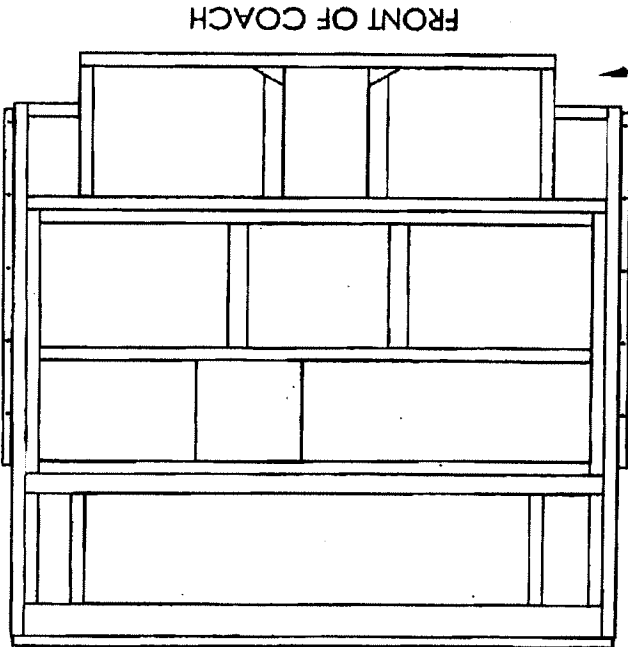


90° ANGLE ON CORNER



FRONT OF COACH

TYPICAL CONSTRUCTION



FRONT OF COACH

CORNER NOTCHED BACK

HEARTLAND CONSTRUCTION

HEARTLAND RV
28868 PAUL DRIVE
ELKHART, IN 46514

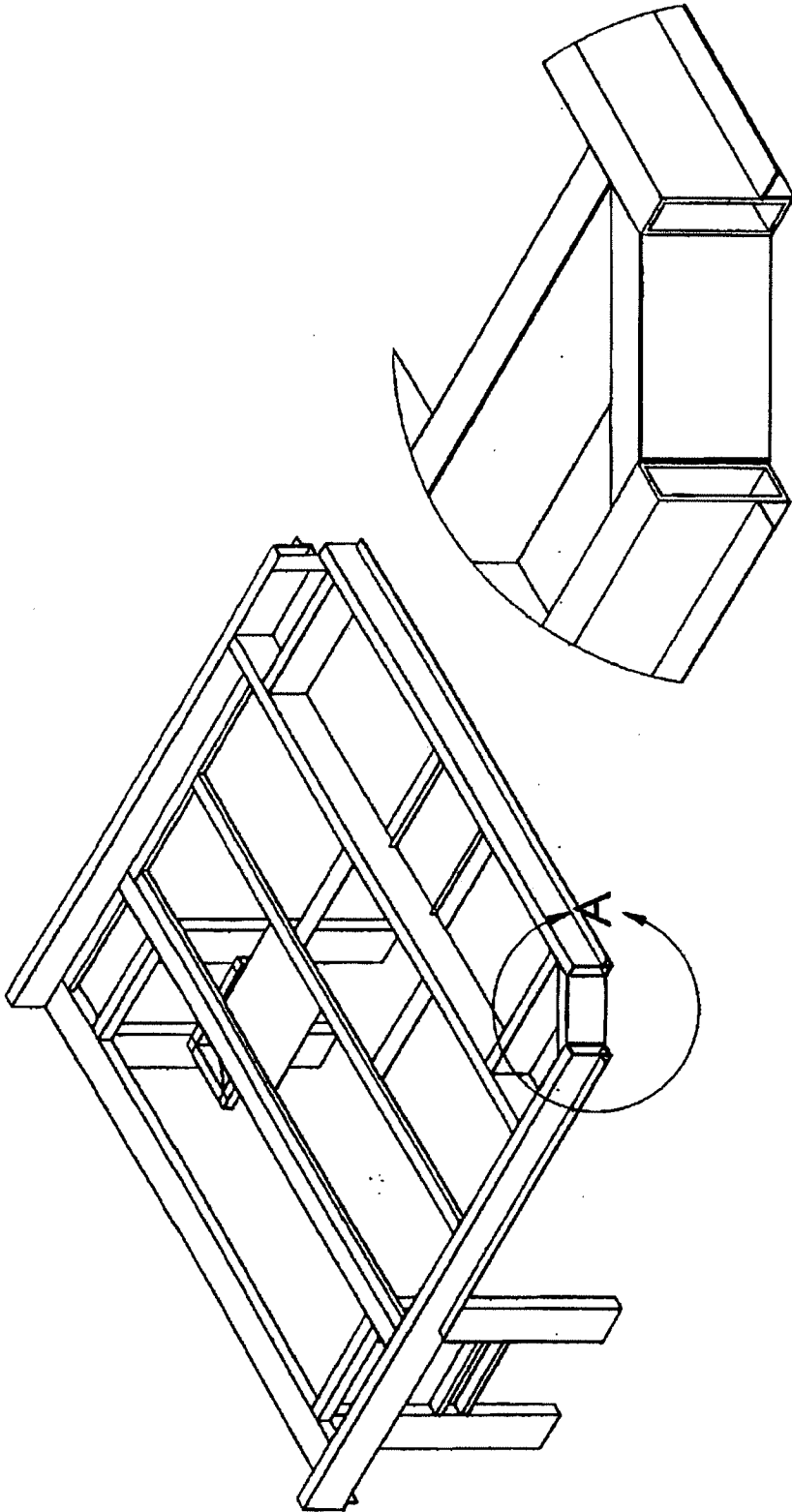
HEARTLAND PATENT INFORMATION

DRAWN BY: C. MYERS
DATE: _____
DWG. NO. HFP-0001
REV. 1
LANDMARK

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONALS
ANGULAR MATCHES - BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

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DETAIL A
SCALE 1:6

HEARTLAND RV
28848 PAUL DRIVE
ELKHART, IN 46514

HEARTLAND PATENT INFORMATION

DATE: _____
DRAWN BY: C. MYERS
DWG. NO. HFP-0001
REV. 1
LANDMARK SHEET 1 OF 1

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TWO PLACE DECIMAL: _____
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AN IMPROVED 5TH WHEEL TRAILER:

1. ASSEMBLY FOR INCREASING THE TURNING RADIUS OF A FIFTH WHEEL TRAILER ATTACHED TO A TRUCK.

THE PROBLEM:

In today's marketplace, short bed pick-up trucks with extended cab areas (also referred to as crew cabs) are becoming more and more popular. *(Note: The problem with the traditional long bed pick-ups is they have become so large, especially with extended cab areas, that they cannot fit into most residential garages, or even fit into most standard commercial size parking spaces. Because of this, 5th wheel owners would much rather own a tow vehicle that allows them to more easily navigate driving and parking when not attached to their unit. Thus, the growing popularity of the short bed pick-ups).* 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. 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, including Rving magazines and manufacturer's vehicle support materials.

THE SOLUTION:

Heartland Recreational Vehicles, LLC has engineered a unique new 5th wheel concept that 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 steel frame of the 5th wheel is designed, as well as the how the it's fiberglass front cap design flows in relationship to the frame.

The first step was cutting off the corners of the upper front section of the frame instead of extending them all of the way out at a 90° angle, as is the case in a traditional 5th wheel frame design. By angling the frame back at the corners, and incorporating a sweeping design in the fiberglass front cap that flows back and over that section of the frame where the void from cutting off the corner has been created, we have essentially "cut off" the lower corners of the front of the 5th wheel, resulting in a 30%+ increased turning radius when attached to a short bed pick-up truck with an extended cab.

(GREG Note: There is a Canadian RV manufacturer named Glendale who makes the Titanium 5th wheel. They have received a patent on their design of a coach that actually goes over the cab of a short bed truck. The crux of their patent – we have had this researched and examined by attorneys – is the fact that they go over the cab of the truck with their unit. While they are selling a lot of these units, no one here in the states has found a way around their patent. Why do I bring this up? They did this to improve the turning radius of a 5th wheel being towed by a short bed truck. It is a strange looking unit, but the fact that they received a patent specifically to help improve the turning radius of their units attached to short bed pick-up trucks should add to the legitimacy of our case for getting a patent on our design to accomplish the same thing. The problem is the same –but our approach to the solution and designs are very different.)

2. A MULTI-PURPOSE UTILITY STATION ENCOMPASSED WITHIN ONE SINGLE COMPARTMENT.

THE PROBLEM:

5th wheel trailers typically have up to a dozen separate utility or systems access points and compartments located on the off-door side of the unit. These compartments house everything from outside showers, electrical receptacles, water fills, dump valves, cable jacks, phone jacks, water manifold distribution panels, water tank flush kits and more. With today's 5th wheels featuring two to three slide-out rooms on the off-door side of the unit, these utility/systems doors and compartments are spread out even more - being placed at numerous, hard to reach locations across the off-door sidewall. Because the 5th wheel owner must access most, if not all, of these different compartments and doors to properly utilize their 5th wheel during their camping experience, their varying locations and locking mechanisms have become both problematic and inconvenient. In this particular aspect of 5th wheel living, today's 5th wheels are more inconvenient and user-unfriendly than ever.

THE SOLUTION:

Heartland Recreational Vehicles, LLC has engineered a unique new single door utility area that incorporates nearly all of the systems and access points needed to properly utilize a 5th wheel trailer during the camping experience, dramatically improving the convenience level for our owners. Systems and access points incorporated in the Heartland 5th wheel single door utility area include a hot and cold water manifold distribution center, 110V and 12V electrical power centers, cable TV hook-up, satellite hook-up, phone jack, CAT-5 jack, water fill, tank flush system, quick disconnect water sprayer, pull handles for all holding tanks, liquid soap dispenser, paper towel holder, disposable rubber glove dispenser, a 12V light and more - all in one, conveniently located and accessible compartment! No longer with 5th wheel owners have to get down on their hands and knees to access or operate their coach systems.

(GREG - Note: This concept has been accomplished in some higher end Class A motorhomes (motorized units), but never before in a fifth wheel or travel trailer (towables) unit.)

Katt, Zellma

From: Greg Cooper
Sent: Monday, March 08, 2004 5:33 PM
To: Tolar, Stacey
Subject: Fwd: Heartland Images and Text

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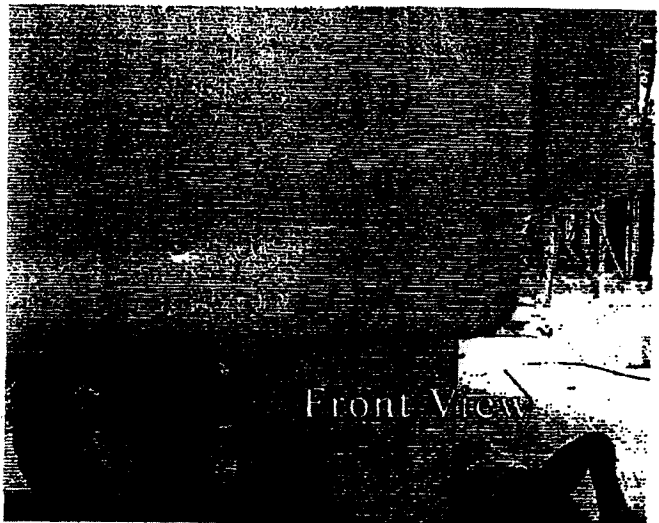
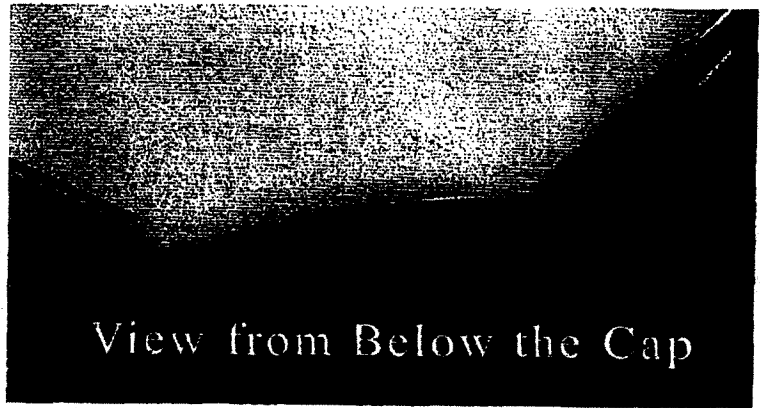
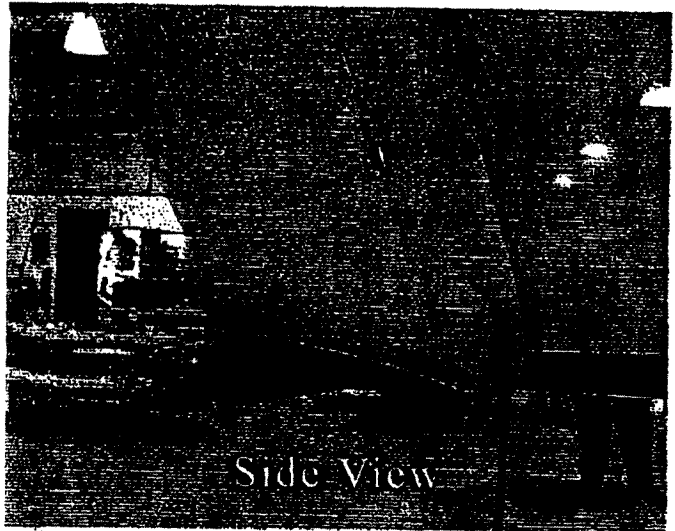
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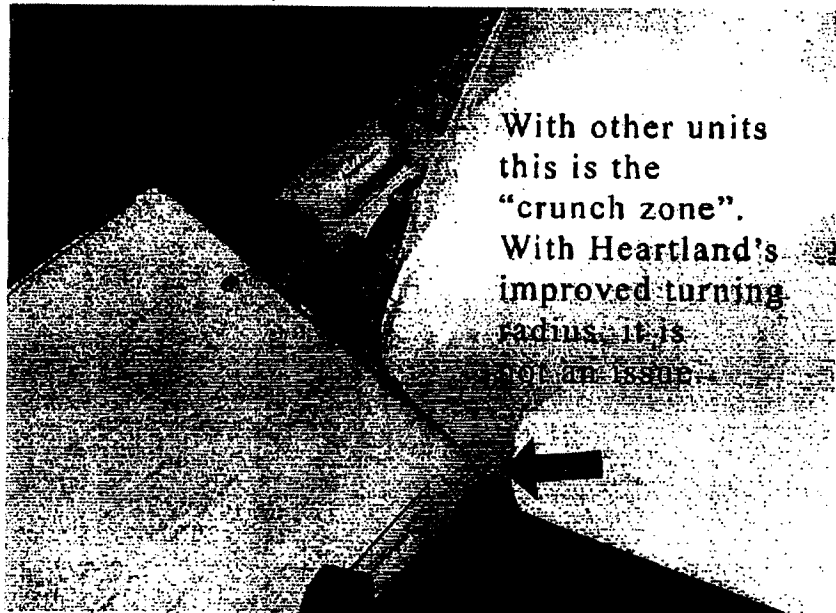
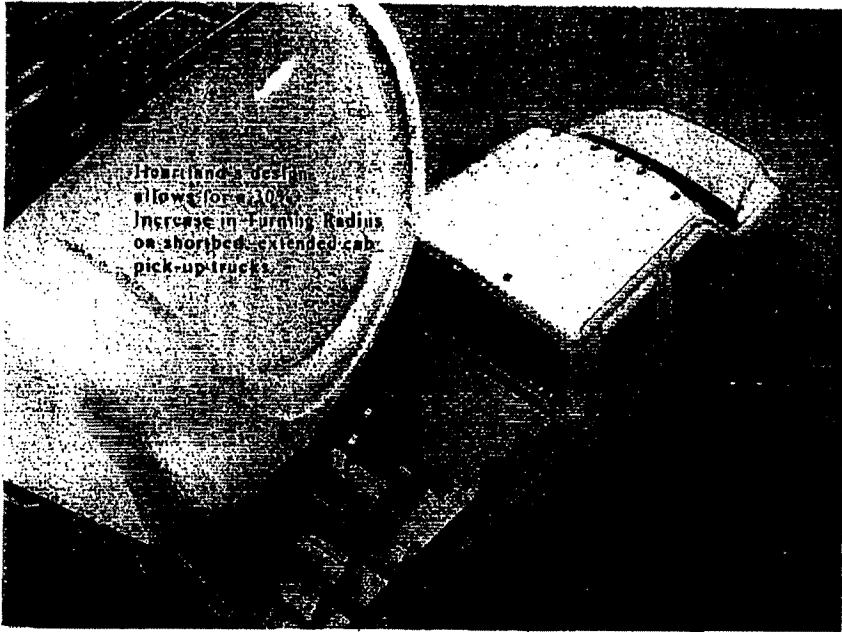
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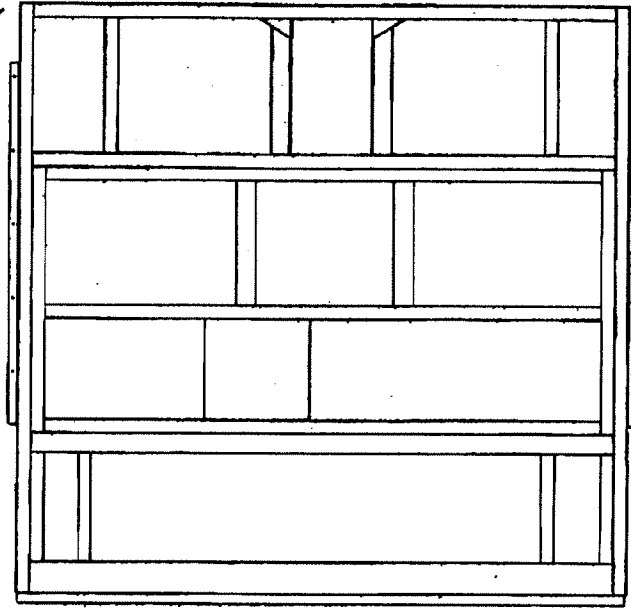
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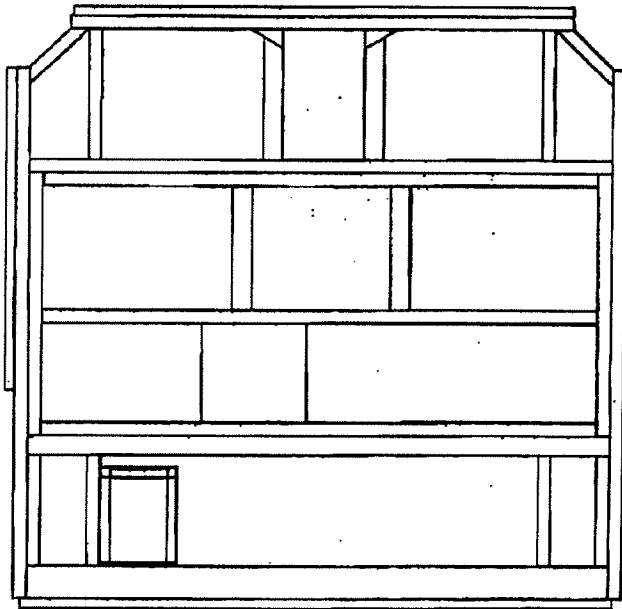


90° ANGLE ON CORNER



FRONT OF COACH

45° ANGLE AT CORNER



HEARTLAND CONSTRUCTION

TYPICAL CONSTRUCTION

HEARTLAND RV
28848 PAUL DRIVE
ELKHART, IN 46514

HEARTLAND PATENT INFORMATION

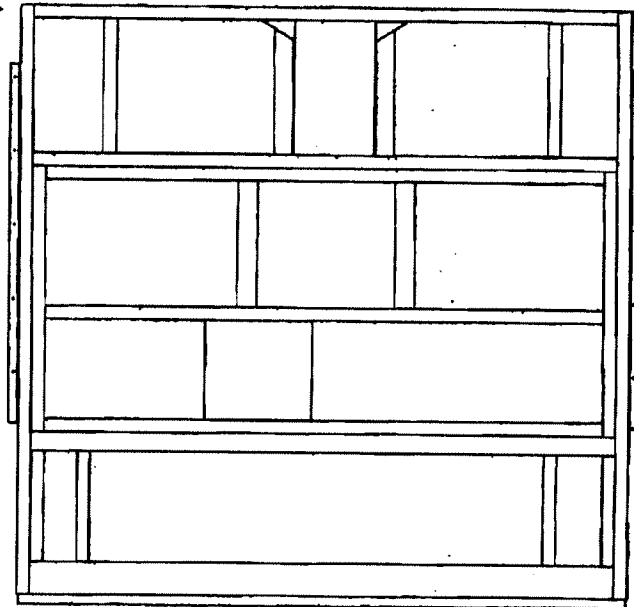
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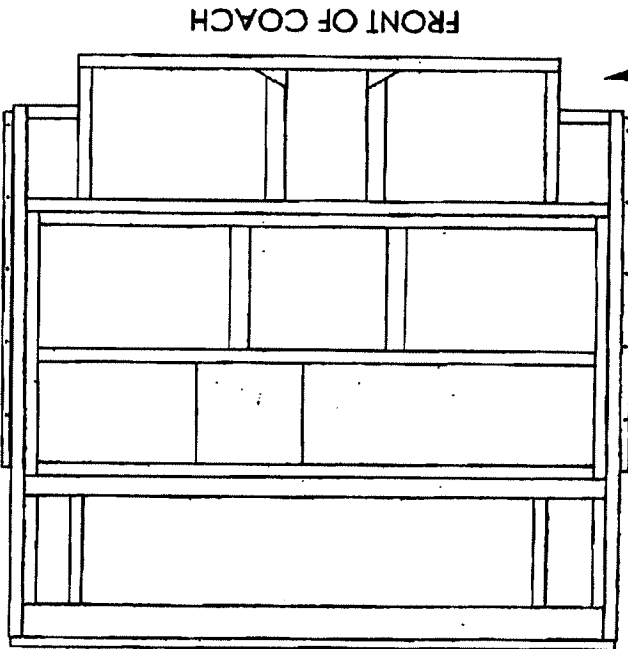
NO.	DESCRIPTION	BY	REV. DATE	NEXT ASST	USED ON	APPLICATION	
						DATE	DESCRIPTION

90° ANGLE ON CORNER



FRONT OF COACH

TYPICAL CONSTRUCTION



FRONT OF COACH

CORNER NOTCHED BACK

HEARTLAND CONSTRUCTION

HEARTLAND RV
28868 PAUL DRIVE
ELKHART, IN 46514

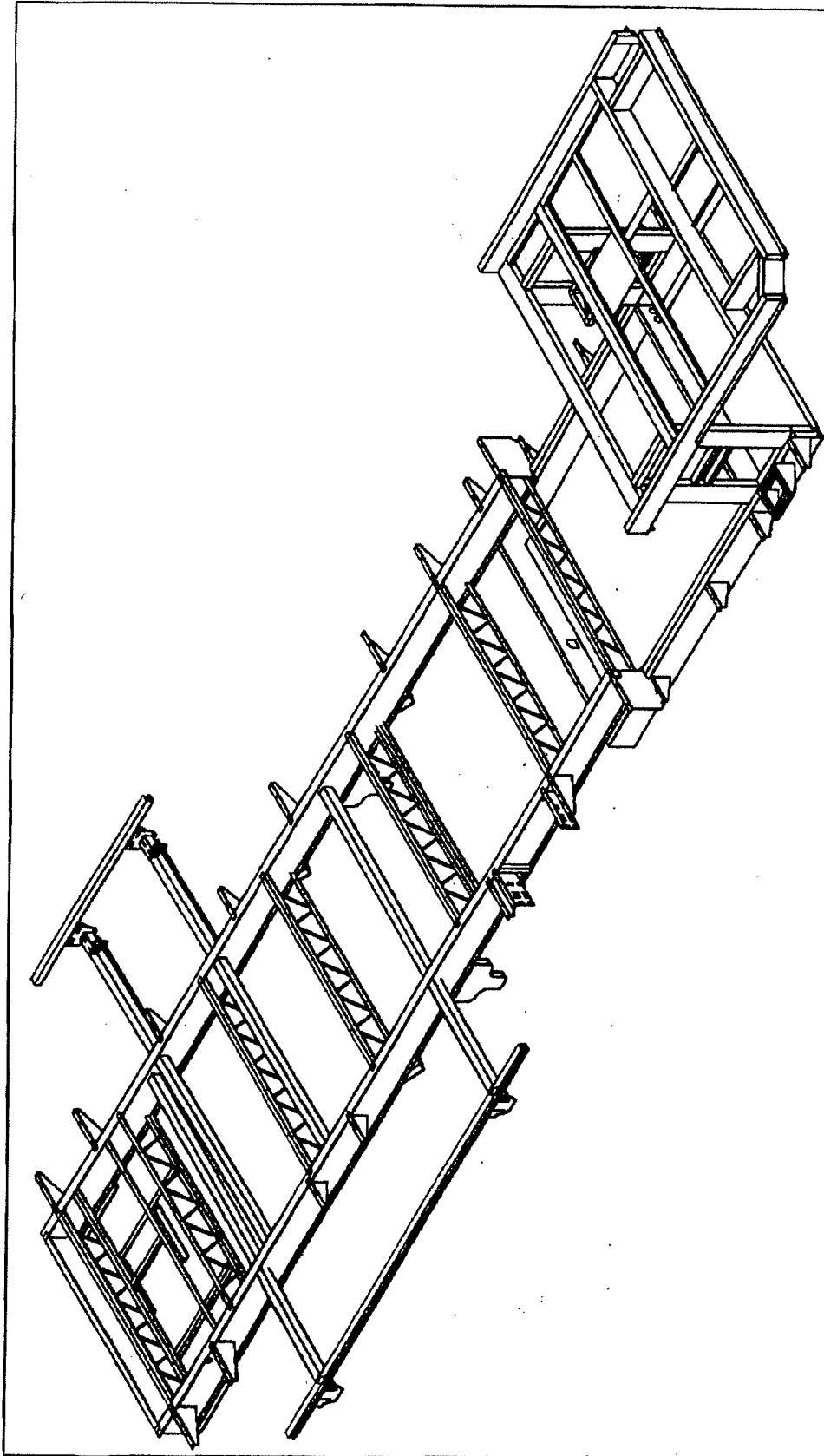
HEARTLAND PATENT INFORMATION

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DATE: _____
LANDMARK
REV. 1
REV. 1
SHEET 2 OF 4

DIMENSIONS ARE IN INCHES
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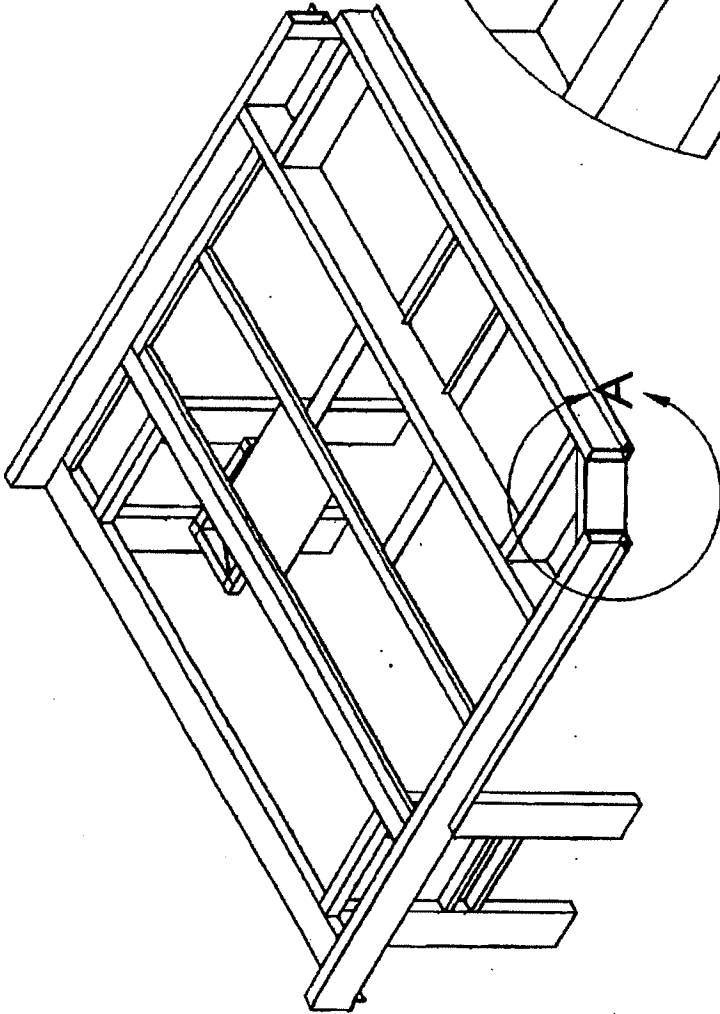
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DETAIL A
SCALE 1:6

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DESIGNED BY: C. MYERS
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LANDMARK: HFP-0001
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ANGULAR: MACH: BEND: 1
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THREE PLACE DECIMAL: 3

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Subject: Fwd: Heartland

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>>> "Scott Tuttle" <scott@mail.heartlandrvs.com> 03/08/04 12:11PM >>>
Photos alone