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Camper with strut, latching, hatch-securing and awning systems

Abstract

The invention provides a camper having strut system that reinforces the body of the camper without the use of structural elements such as walls or cross-bars at the rear of the camper. The strut system can be used with pop-up or wedge-type campers to provide a camper that is free of any structural elements between the sidewalls at the rear of the camper. By avoiding the use of structural elements between the sidewalls at the rear of the camper, the strut system provides a camper with a rear opening that is structurally sound and free of any obstructions making it easier to enter, exit, load, and unload the camper. The invention also provides a latching system, an awning system, and hatch securing system for use with a camper.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS (1) This application claims the benefit of provisional application No. 63/329,060 filed Apr. 8, 2022, the entire contents of which are incorporated herein by reference for all purposes.

FIELD OF THE INVENTION

(1) The invention relates to campers for use on vehicles. More particularly, the invention relates to a truck camper having innovative strut, latching, hatch securing and awning systems.

BACKGROUND

(2) A variety of campers are available in the art. Among them are wedge campers and pop-up campers for use on the bed of a truck. Wedge campers and pop-up campers include sidewalls and a roof. With wedge campers, the roof is in a hinged relationship with the sidewalls and front wall of the camper such that the roof is permitted to swing upward to provide the camper with a wedge shape when the camper is in an open configuration. Pop-up campers have a roof that is in a

telescoping relationship with the sidewalls and front and rear walls of the camper wherein the roof extends vertically to provide the camper with a height allowing a user to stand up in the camper.

(3) Both wedge and pop-up campers require some form of reinforcement between the sidewalls at the rear of the camper in order to provide the camper with structural strength. Reinforcing these campers is of particular importance as the campers are often used with off-road vehicles over rugged terrain where a camper can provide a user with the only available source of shelter. In traversing rugged terrain, the camper is subjected to significant torsion and thus requires significant structural reinforcement.

(4) The reinforcement of wedge and pop-up campers involves the use of a structural member, such as a cross-bar that traverses the space between the sidewalls at the rear of the camper. Other reinforcement means include a rear wall portion that joins the sidewalls at the top of the camper. All current means of reinforcing the camper create an obstacle to the use of the camper as the rear opening of the camper is obstructed. Thus, a user must duck under, or step over, the reinforcement to enter and exit the camper. The reinforcement can also create a hazard as the user may trip over the reinforcement, or bump their head when entering or exiting the camper. The reinforcement also obstructs the rear view from inside the camper which detracts from a user enjoying the surrounding scenery. In addition, the reinforcement hinders the loading and unloading of the camper.

(5) What is needed in the art therefore is a reinforced camper that has an open, unobstructed rear entry.

SUMMARY OF THE INVENTION

(6) The invention provides a camper having a strut system that reinforces the camper while avoiding the use of structural members that create an obstruction at the rear of the camper.

(7) The invention also provides a camper having an innovative latching system that permits a user to access a tailgate latch when the camper is installed on a truck.

(8) The invention also provides a camper having an innovative awning system that permits a rear portion of a tent in the camper to serve as both a tent wall and an awning.

(9) The invention also provides a camper having an innovative hatch securing system that uses the tailgate of a truck to secure the hatch of the camper in a closed configuration when the camper is installed on the bed of the truck.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

(1) FIG. 1 is a perspective view of an embodiment of the inventive camper in an open configuration, wherein the camper is connected to the bed of a truck and the tent of the camper is closed and the awning system is disengaged.

(2) FIG. 2 is a perspective view of an embodiment of the inventive camper in an open configuration, wherein the camper is connected to the bed of a truck and tent of the camper is open and the awning system is engaged.

(3) FIG. 3 is a perspective view of an embodiment of the inventive camper in a closed configuration.

(4) FIG. 4 is a drawing of an embodiment of the strut system of the invention with the roof of the camper in a partially open configuration.

(5) FIG. 5 is a drawing of an embodiment of the strut system of the invention with the roof of the camper in a closed configuration.

(6) FIG. 6 is a drawing of an embodiment of the strut system of the invention with the roof of the camper in a partially open configuration.

(7) FIG. 7 is a drawing of an embodiment of the strut system of the invention with the roof of the camper in a closed configuration.

- (8) FIG. 8 is a drawing of a first embodiment of the latching system of the invention with the hatch of the camper in a partially open configuration.
- (9) FIG. 9 is a drawing of the latching system of FIG. 8 with the hatch of the camper in a closed configuration.
- (10) FIG. 10 is a drawing of a second embodiment the latching system of the invention with the hatch of the camper in an open configuration.
- (11) FIG. 11 is a drawing of the latching system of FIG. 10 with the hatch of the camper in a closed configuration.
- (12) FIG. 12 is a side view of an embodiment of the hatch securing system of the invention with the latch in a locking configuration.
- (13) FIG. 13 is a side view of an embodiment of the hatch securing system of the invention with the latch in a retracted configuration.
- (14) FIG. 14 is a perspective view of an embodiment of the hatch securing system of the invention with the latch in a retracted configuration.
- (15) FIG. 15 is a drawing of an embodiment of a roof latch of the invention.
- (16) The figures referred to above are not necessarily drawn to scale and should be understood to present a representation of the invention, illustrative of the principles involved. Some features depicted in the drawings have been enlarged or distorted relative to others to facilitate explanation and understanding. The same reference numbers are used in the drawings for similar or identical components and features shown in various alternative embodiments. The invention, as disclosed herein, will have configurations and components determined, in part, by the intended application and environment in which they are used.

DETAILED DESCRIPTION

- (17) The inventor discovered a novel camper that is structurally rigid without any intervening structural members between the sidewalls at the rear of the camper. The inventive camper can use a strut system that reinforces the body of the camper when the roof of the camper is closed. The strut system permits the camper to remain structurally sound while the camper is secured to a truck bed during travel, including travel over rugged terrain such as in off-road applications.
- (18) FIG. 1 depicts an embodiment of the inventive camper in an open configuration. Camper **100** comprises a pair of opposing sidewalls **101** connected to roof **103** by one or more hinges. Camper **100** can comprise front wall **102** located opposite the rear of the camper. Sidewalls **101** can be joined to one another by front wall **102**. Front wall **102** can be connected to roof **103** by at least one hinge. Connecting roof **103** to sidewalls **101** and/or front wall **102** by one or more hinges permits roof **103** to swing upward thereby allowing camper **100** to alternate between an open and closed configuration. Camper **100** can be interpreted as having a camper body that includes sidewalls **101**, front wall **102**, and roof **103**. The camper body can be made from a material, including, without limitation, epoxy, a metal alloy or metal (e.g. aluminum or steel), fiberglass, carbon fiber, or combinations thereof. In one non-limiting embodiment, the camper body is made from carbon fiber and the outer surface of the camper body has attached thereto a skin of stainless steel.
- (19) Roof **103** is connected to hatch **104** by at least one hinge that is adapted to permit hatch **104** to open and close. Camper **100** can have tent **105** connected to sidewalls **101** and roof **103**. Tent **105** can include panel **106** at the rear of camper **100**. Sidewalls **101**, front wall **102**, roof **103**, tent **105**, panel **106**, and the bed of the truck upon which camper **100** is installed, define a tent space within camper **100** which can provide an enclosed shelter. Panel **106** can include panel door **107** which can be opened and closed to provide entry and exit into the tent space within camper **100**. Panel door **107** is adapted to be opened and closed by closure **108**. Some non-limiting examples of closures for closure **108** include, but are not limited to, zippers, buttons, Velcro™, magnets, and combinations thereof. Tent **105**, panel **106** and panel door **107** can be made of a fabric or other pliable sheet material that collapses when camper **100** is placed in a closed configuration. FIG. 1 depicts camper **100** in an open configuration, with panel **106** and panel door **107** in a closed

configuration.

(20) Camper **100** can include a pair of opposing roof latches **120** that are adapted to secure roof **103** to sidewalls **101** to maintain camper **100** in a closed configuration. Roof latches **120** can be any latch configuration suitable for securing roof **103** in a closed configuration. For example, and by no way of limitation, roof latches **120** can be cam latches, baling latches, toggle latches, locking over center cam latches, or combinations thereof. FIG. **15** shows a non-limiting embodiment of roof latch **120** connected to latch surface **121** at the rear end of sidewall **101**. Roof latch **120** can be connected to latch surface **121** by rivets, bolts, or screws, for example. Latch surface **121** can be countersunk below the plane of the surface of sidewall **101** at a depth that is sufficient to permit the top of roof latch **120** to be flush with, or below, the plane of the surface of sidewall **101**. This configuration can prevent roof latch **120** from contacting the inside surface of hatch **104** when hatch **104** is closed against the rear end of sidewall **101** thereby allowing the inner surface of hatch **104** to be flush against the outside surface of the rear of sidewall **101**. When hatch **104** is closed, hatch **104** prevents access to roof latches **120** so that roof **103** cannot be opened without opening hatch **104**.

(21) Camper **100** can include a pair of rams **109** positioned near the front of, and on opposing sides of, camper **100**. Rams **109** are pivotably connected to sidewalls **101** and roof **103**. Rams **109** are adapted to provide upward force to assist a user in raising roof **103** to place camper **100** in an open configuration. Rams **109** can be pneumatic or hydraulic rams. Camper **100** includes lockout bars **110** near the rear, and on opposing sides of, camper **100**. Lockout bars **110** are adapted to support roof **103** so as to fix camper **100** in an open configuration. Lockout bars **110** can be lockable telescoping rods, for example. Lockout bars **110** are connectable to the bottom surface of roof **103** and the top of sidewalls **101**. Lockout bars **110** can be pivotably connected to the top of sidewalls **101**, wherein lockout bars **110** are permitted to lay against sidewalls **101** when lockout bars **110** are not connected to roof **103**. Lockout bars **110** can connect to roof **103** in a reversible mating relationship so as to permit lockout bars **110** to be quickly disconnected from roof **103** and placed horizontally against sidewalls **101**. The tops of sidewalls **101** can include a trough or depression for receiving lockout bars **110** so that lockout bars **110** do not contact or interfere with the closing of roof **103** against the tops of sidewalls **101**.

(22) FIG. **2** shows camper **100** and panel **106** in an open configuration with panel **106** forming part of an awning system. The awning system can provide shelter against rain, snow and sun, for example, while permitting the rear of the camper to remain open. The awning system can include panel **106**, a pair of opposing linear members **113**, bottom support **118**, and a pair of opposing retention members **119**. Linear members **113** are rigid members that are adapted to support and maintain panel **106** in an open configuration. Linear members **113** can be connected to sidewalls **101** by hinges so as to permit linear members **113** to rotate towards the front of camper **100** and lay against the top of sidewalls **101** for storage when panel **106** is closed and the awning system is disengaged. Bottom support **118** is a rigid linear member and can be made from a material such as fiberglass, aluminum, or plastic, for example. Bottom support **118** is adapted to reversibly connect to linear members **113** when the awning system is engaged. Linear members **113** can reversibly connect to bottom support **118** on panel **106** by spring-loaded pins or a magnetic connection, for example. Linear members **113** can be telescoping rods that are lockable to permit linear members **113** to extended to a length that keeps panel **106** taught and straight when linear members **113** are connected to sidewalls **101** and bottom support **118** while panel **106** is open and the awning system is engaged. Alternatively, linear members **113** can have a fixed length suitable for keeping panel **106** taught and straight when linear members **113** are connected to sidewalls **101** and bottom support **118** while panel **106** is open and the awning system is engaged. With the panel **106** open and linear members **113** in rigid connection with sidewalls **101** and bottom support **118**, retention members **119** connect to bottom support **118** and the rear surfaces of sidewalls **101** under tension so as to provide structural strength to the awning system. Retention members **119** can be elongated

elastomeric members made from rubber or silicone for example. Alternatively, retention members **119** can be straps made of a material such as nylon and in operable connection with a ratchet so as to be adapted to connect to bottom support **118** and the rear surfaces of sidewalls **101** under tension.

(23) When panel **106** is in a closed configuration and the awning system is disengaged, panel **106** connects to tent **105** by a zipper or Velcro™, for example, while sidewalls **101** reversibly connect to panel **106** by magnets, Velcro™, snaps or zippers, for example.

(24) In some aspects of the invention, camper **100** includes a strut system for reinforcing camper **100** against torsion forces during travel while camper **100** is in a closed configuration and attached to a vehicle, such as on the bed of a truck. The inventive strut system reinforces camper **100** and avoids the use of structural members such as a cross-bar or a wall portion between opposing sidewalls **101** at the rear of camper **100**. Thus, the strut system of the invention provides a camper with a rear entry that is completely open and free of any obstructions. This permits a user to enter and exit camper **100**, and to load and unload camper **100**, without having to navigate any obstruction. This can be particularly advantageous at night, or when a user is carrying a load that could obstruct the user's ability to see and avoid an obstruction while entering or exiting the camper. Moreover, the inventive strut system provides camper **100** with a completely open space so that the rear view into and out of the camper is unobstructed. This provides a particular advantage as campers are often used and enjoyed in scenic locations. In some embodiments, the strut system of the invention is used with a wedge camper. The wedge camper can have sidewalls **101** with a profile that tapers towards the front of the camper such that the sidewalls have a triangular shape. Alternatively, camper **100** can have sidewalls with a straight profile such that the sidewalls have a rectangular shape.

(25) The strut system can include one or more interfacing structural elements on sidewalls **101** and roof **103** that mate with one another when camper **100** is in a closed configuration. By mating with one another, the structural elements lock together and permit sidewalls **101**, front wall **102**, and roof **103** to resist torsion forces while camper **100** is transported to a location on a vehicle, such as on a truck during off-road travel. The strut system can include structural elements **111** on a top surface of sidewalls **101** at or near the rear of camper **100**, and structural elements **112** on a bottom surface of roof **103** at or near the rear of camper **100**. When camper **100** is in a closed configuration, structural elements **111** interface with structural elements **112** in a mating relationship that allows camper **100** to avoid torsion forces that would otherwise contort and damage a camper that lacks any structural member or wall portion between the sidewalls at the rear of the camper.

(26) FIGS. 4 and 5 depict an embodiment of the strut system of the invention wherein structural elements **111** comprise a series of protrusions and indentations that are adapted to mate with structural elements **112** which comprise an opposing series of complimentary protrusions and indentations. Structural elements **111** can comprise one or more protrusions that rise above the plane of the top sidewalls **101**, and/or one or more indentations that extend below the plane of the top of sidewalls **101**. Structural elements **112** can comprise one or more protrusions that extend below the plane of the bottom of roof **103**, and/or one or more indentations that rise above the plane of the bottom of roof **103**. While structural elements **111** and structural elements **112** are depicted as having a square cross-section, it will be appreciated that structural elements **111** and structural elements **112** can assume any complimentary cross-sectional shape or configuration that permits the structural elements to mate with one another in a manner that provides strength and rigidity to camper **100** when roof **103** is closed and in contact with sidewalls **101**. For example, structural elements **111** and structural elements **112** can assume a cross-sectional shape that is round, oval, square, rectangular, triangular, or a combination thereof. Structural elements **111** and structural elements **112** can include one or a plurality of complimentary male and female mating elements. For example, FIGS. 6 and 7 show an embodiment for a strut system wherein structural

elements **111** comprise a triangular indentation and structural elements **112** comprise a complimentary triangular protrusion. Structural elements **111** and structural elements **112** can comprise a complimentary rail and track configuration that extends along at least a portion of the top of sidewalls **101** and the bottom of roof **103**.

(27) FIGS. **6** and **7** also show that the inventive strut system permits camper **100** to be free of any structural member or wall portion between sidewalls **101**. While hatch **104** is not shown in FIG. **6** or **7**, it will be appreciated that hatch **104** is of a size and configuration that is sufficient to cover the rear of camper **100**. In a preferred embodiment, hatch **104** is of sufficient width to cover the rear ends of sidewalls **101** so that the edges of hatch **104** are flush with the outside surface of sidewalls **101** when hatch **104** is closed, such as shown in FIG. **3**.

(28) Another aspect of the invention provides a latching system for a camper. FIGS. **8** and **9** show a first non-limiting embodiment of the latching system of the invention. In this embodiment, the latching system can comprise hatch openings **114** which traverse hatch **104** and align with sidewall openings **115** when hatch **104** is in a closed configuration, such as shown in FIG. **9**. Hatch openings **114** and sidewall openings **115** provide access to latch columns **116**. Latch columns **116** are hollow spaces within sidewalls **101** that are adapted to permit a user to reach into sidewalls **101** and activate tailgate mechanism **117** thereby unlatching a tailgate on a truck to which camper **100** is attached. Latch columns **116** can have the same cross-sectional shape as hatch openings **114** and sidewall openings **115**. Tailgate mechanisms **117** can be latches or electronic switches, for example. In some embodiments, tailgate mechanisms **117** are integrated into the construction of camper **100**. For example, tailgate mechanisms **117** can be electronic switches that are integrated into the construction of sidewall sidewalls **101** and wired into the electronic controls of the truck to which the camper is attached so as to permit tailgate mechanisms **117** to operate the truck's electronic tailgate latching mechanism. Alternatively, tailgate mechanisms **117** can be integrated into the construction of the upper bed rails of a truck on which the camper is installed, wherein latch columns **116** have openings in their bottom surfaces to permit a user to access and activate tailgate mechanisms **117** so as to release the tailgate of the truck.

(29) The latching system of the invention provides access to a mechanism for opening the tailgate of a truck while protecting the mechanism from collisions and the elements, such rain and snow. This provides a particular advantage when the mechanism is an electric switch which can be especially susceptible to collisions and the elements. In addition, hatch openings **114**, sidewall openings **115**, and latch columns **116** can be adapted to receive a foot of a human and serve as a step to permit a human to reach roof **103**, such as for loading a rack or storage compartment on roof **103**. While FIGS. **8** and **9** depict a pair of latching systems, it will be appreciated that camper **100** can have a single latching system.

(30) FIGS. **10** and **11** depict a second embodiment of the latching system of the invention. This embodiment shows that latch column **116** can have a truncated length compared to the latch columns of FIGS. **8** and **9**. The latching system in this second embodiment can have column floorplate **212** which forms a bottom surface of latch column **116**. Floorplate **212** can be an extension of the bottom surface of sidewalls **101**. Column floorplate **212** can have floorplate opening **213** which forms an aperture in the bottom of latch column **116** and is adapted to permit a user to access a latching mechanism on the bedrails of a truck upon which the camper is installed.

(31) FIG. **10** shows the second embodiment of the latching system with hatch **104** in a closed configuration. As in the first embodiment of the latching system, the openings in sidewall **101** and hatch **104** align to permit a user to access the space formed by latch column **116**. In this second embodiment, a user can access and operate a tailgate mechanism of a truck on which the camper is attached through floorplate opening **213**. While FIGS. **8-11** show hatch openings **116** having a bottom surface that can be formed by an extension of the bottom of sidewalls **101**, it will be appreciated that latch column **116** can be a space that does not have a floorplate. That is, the entire bottom of latch column **116** can be open such that the bottom opening is defined by the opposing

inner and outer walls of sidewalls **101** and the portion of sidewall **101** where the latch column terminates towards the front of the camper.

(32) Another aspect of the invention provides a hatch securing system for a camper. The hatch securing system can comprise at least one latch connected to hatch **104**, wherein the latch is adapted to interface with the tailgate of a truck to secure hatch **104** of camper **100** in a closed configuration when the camper is connected to a truck and the tailgate of the truck is closed. FIGS. **12-14** depict an embodiment of a latch for use with the hatch securing system of the invention. Latch **200** can comprise latch member **201** which is pivotably connected to a pair of opposing arm members **202** by pivot connection **203**. Pivot connection **203** can be a pin (e.g. roll pin), bolt, or other shaft-forming body, for example. FIG. **12** shows latch member **201** in a locking configuration wherein bottom surface **204** of latch member **201** is below the plane of the bottom surface of arm members **202** such that securing surface **205** of latch member **201** is exposed. Latch member **201** is held in the locking configuration under tension by spring **206** such that latch member stop **207** is held against arm member stop **208**. Spring **206** is connected to latch member **201** and arm members **202** by spring connections **209** which can be pins (e.g. roll pins), shafts, bolts, or other shaft-forming body, for example.

(33) FIGS. **13** and **14** show latch **200** in a retracted configuration wherein latch member **201** has pivoted upward about pivot connection **203** so that bottom surface **204** is flush with the bottom surface of arm members **202** and securing surface **205** occupies the space between arm members **202**. Latch **200** connects to the inside surface of hatch **104** near the bottom of the hatch by connecting surface **210**. Latch **200** can be connected to hatch **104** using fasteners which are threaded through one or more fastener holes **211**. Latch **200** can be connected to hatch **104** by fasteners such as screws, rivets, or bolts, for example. Alternatively, latch **200** can connect to hatch **104** by fixing connecting surface **210** to the inside surface of hatch **104** by welding or an adhesive, for example.

(34) With camper **100** attached to a truck and the tailgate of the truck closed, the hatch securing system secures hatch **104** in a closed configuration by moving hatch **104** towards the tailgate from an open configuration such that bottom surface **204** of latch member **201** contacts the top surface of the tailgate. Pressing hatch **104** closed causes the tailgate to push against bottom surface **204** such that latch **200** assumes the retracted configuration wherein at least a portion of latch member **201** retreats into the space between arm members **202** until bottom surface **204** clears the top surface of the tailgate. After bottom surface **204** clears the tailgate, latch member **201** returns to the locking configuration under the tension of spring **206** such that securing surface **205** of latch member **201** contacts the inside surface of the tailgate thereby securing hatch **104** in a closed configuration. Hatch **104** can be opened by opening the tailgate of the truck so that latch **200** is disengaged from the tailgate thereby permitting hatch **104** to be opened.

(35) It will be appreciated that latch **200** can be offered to consumers as an integral portion of a camper, or as a stand-alone unit for installation on a camper. Latch **200** may be offered to consumers as an assembled unit, or as a kit comprising at least a portion of the individual components of latch **200**. The assembled unit and kit can be packaged and provided to consumers with instructions on the installation and use of latch **200**.

(36) While the latching system and hatch securing system of the invention are disclosed as being used in connection with a camper wherein the roof **103** is in a hinged relationship with sidewalls **101** and/or front wall **102**, it will be understood that the latching system and hatch securing system of the invention can be used in connection with a canopy or “truck top” that is adapted to connect to a truck bed. Such a canopy can be that of the camper depicted in FIG. **3**, wherein the canopy comprises sidewalls **101**, front wall **102**, and roof **103**, wherein these components are fixed to one another or are made of a single, continuous construction. In such an embodiment, the canopy can comprise sidewalls **101**, front wall **102**, and roof **103**, wherein roof **103** is not connected to sidewalls **101** and/or front wall **102** by hinges. The canopy body can be made from a material,

including, without limitation, epoxy, a metal alloy or metal (e.g. aluminum or steel), fiberglass, carbon fiber, or combinations thereof. In one non-limiting embodiment, the canopy body is made from carbon fiber and the outer surface of the canopy body has attached thereto a skin of stainless steel.

REFERENCE CHARACTERS

(37) **100**—Camper **101**—Sidewalls **102**—Front Wall **103**—Roof **104**—Hatch **105**—Tent **106**—Panel **107**—Panel Door **108**—Closure **109**—Rams **110**—Lockout Bars **111**—Structural Elements **112**—Structural Elements **113**—Linear Members **114**—Hatch Openings **115**—Sidewall Openings **116**—Latch Columns **117**—Tailgate Mechanism **118**—Bottom Support **119**—Retention Members **120**—Roof Latch **121**—Latch Surface **201**—Latch Member **202**—Arm Members **203**—Pivot Connection **204**—Bottom Surface **205**—Securing Surface **206**—Spring **207**—Latch Member Stop **208**—Arm Member Stop **209**—Spring Connections **210**—Connecting Surface **211**—Fastener Holes **212**—Column Floorplate **213**—Floorplate Opening

Claims

1. A camper and strut system, comprising: a camper having: a) a roof having a first structural element and a second structural element; and b) a first sidewall having third structural element and a second sidewall having a fourth structural element; wherein (i) the first structural element is adapted to interface with the third structural element, (ii) the second structural element is adapted to interface with the fourth structural element, and (iii) interfacing of the first structural element with third structural element and interfacing of the second structural element with the fourth structural element provides the camper with a strut system that reinforces the roof, the first sidewall and the second sidewall against torsion forces when the camper is in a closed configuration; wherein the first sidewall and the second sidewall (iv) each have a bottom that is adapted to mate with bedrails of a bed of a truck, and (v) form opposing planar structures that intervene between the roof and the bedrails of the truck when the camper is installed on the truck and the roof is in a closed position; wherein (vi) the first structural element and the second structural element each include at least one of a first protrusion that extends beyond a plane of a bottom of the roof and a first indentation that forms a depression in the bottom of the roof; (vii) the third structural element at least one of a second protrusion and a second indentation each on a top of the first sidewall, and (viii) the fourth structural element is at least one of a third protrusion and a third indentation each on a top of the second sidewall.
2. The camper and strut system of claim 1, wherein the first structural element and the second structural element are on opposing sides of the roof.
3. The camper and strut system of claim 1, wherein the camper is adapted to assume an open configuration and a closed configuration.
4. The camper and strut system of claim 1, wherein the roof is connected to a hinge that is adapted to permit the camper to alternate between an open configuration and a closed configuration.
5. The camper and strut system of claim 1, wherein the roof contacts the first sidewall and the second sidewall when the camper is in a closed configuration.
6. The camper and strut system of claim 1, wherein the first sidewall and the second sidewall have a front end and a rear end, and the first sidewall and the second sidewall are not connected to one another on their rear end when the camper is in an open configuration.
7. The camper and strut system of claim 1, further comprising a tent connected to the roof, the first sidewall and the second sidewall.
8. The camper and strut system of claim 1, further comprising a hatch that is connected to the roof by at least one hinge.
9. A camper and latching system, comprising: a camper comprising: a) a roof; b) a first sidewall and a second sidewall, wherein the first sidewall and the second sidewall are separated by a space;

and c) a hatch that is adapted to cover the space when the hatch is in a closed configuration; wherein at least one of the first sidewall and the second sidewall have a sidewall opening; wherein the sidewall opening is adapted to align with a hatch opening in the hatch when the hatch is in a closed configuration; wherein the sidewall opening and the hatch opening are adapted to provide access to a mechanism for opening a tailgate of a truck when the camper is attached to a bed of the truck.

10. The camper and latching system of claim 9, wherein the mechanism is a latch or a switch.

11. The camper and latching system of claim 9, wherein the sidewall opening and the hatch opening are adapted to receive a foot of a human when the hatch is in a closed configuration.
