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(54) **PICKUP TRUCK MOUNTED TOOLBOX**

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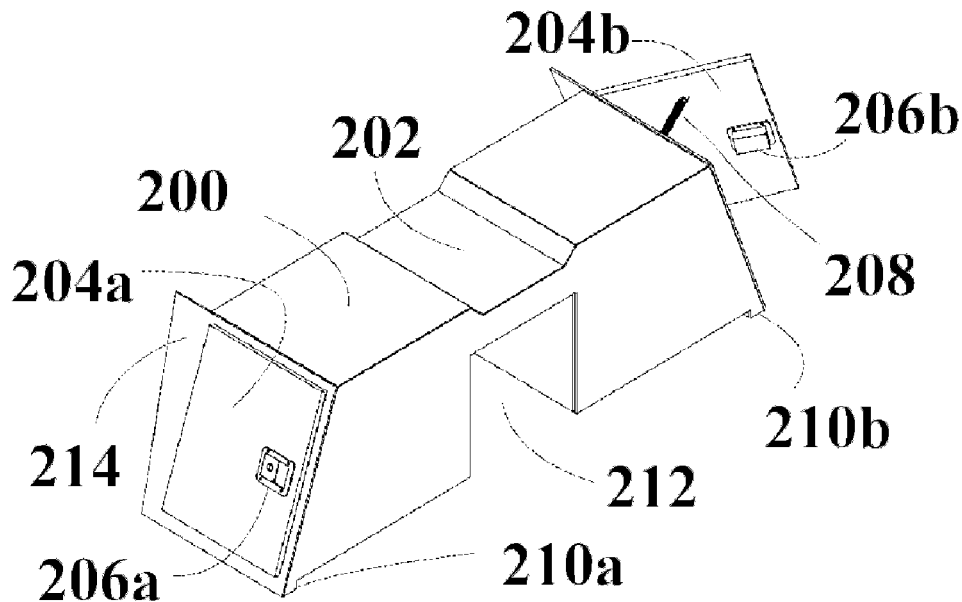
(57) **ABSTRACT**

(22) Filed: **Dec. 19, 2014**

A pickup truck toolbox can be mounted to the bed side rails by feet rather than arms and may sit above the side rails and the bed volume, thus allowing use of the full volume of the bed between the side rails and the floor of the bed. It may have a rear view tunnel through it, whereby the driver may use normally the rear view mirror, and may have a Liddy light valley across the top, whereby the brake light will remain visible. The profile may match or sit within the profile of the cab of the truck, a fairing may be employed to improve fuel efficiency, and side-mounted vertical hatches may allow both easy access and the use of shelving.

Related U.S. Application Data

(60) Provisional application No. 61/964,000, filed on Dec. 20, 2013.



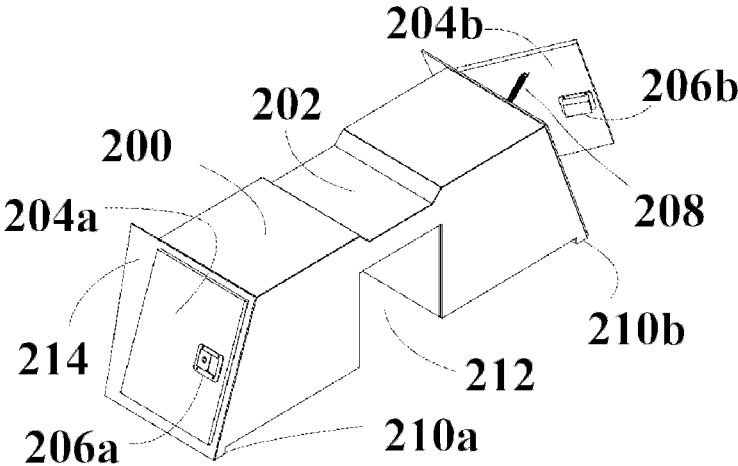


Fig. 1

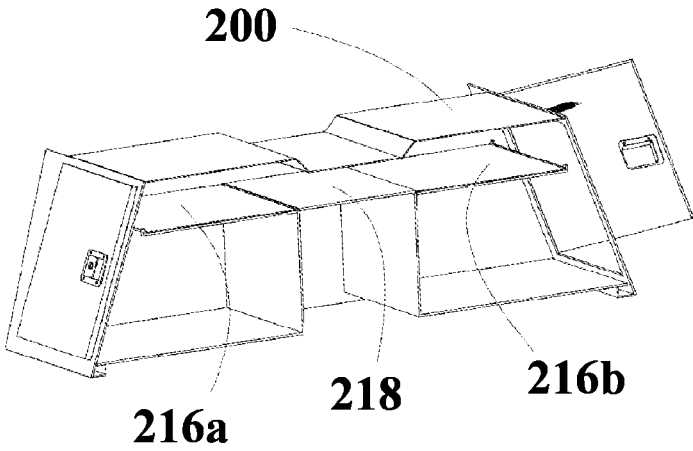


Fig. 2

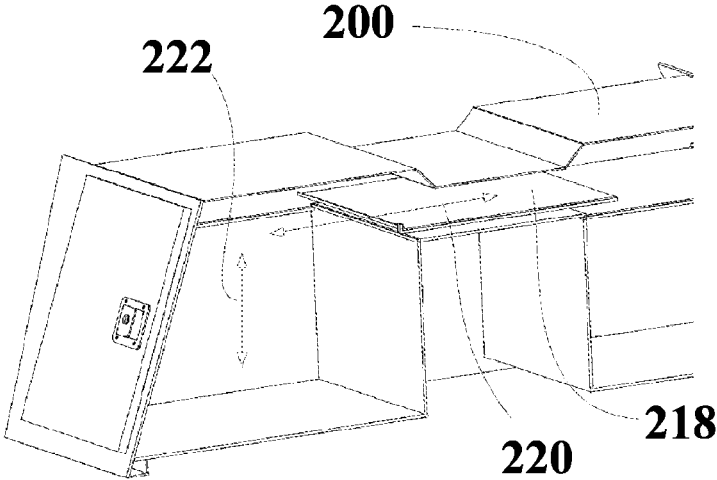


Fig. 3



Fig. 4

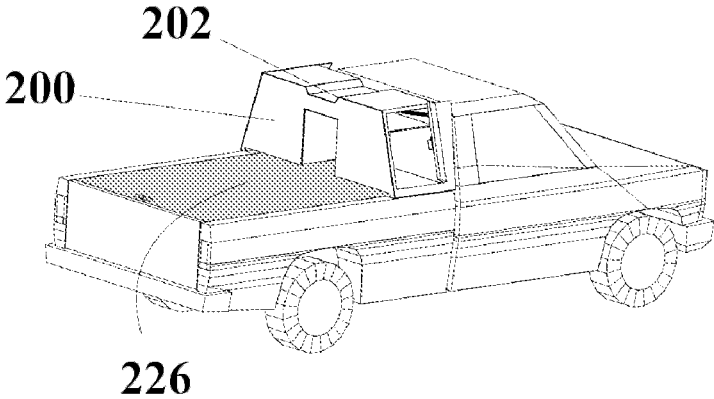


Fig. 5

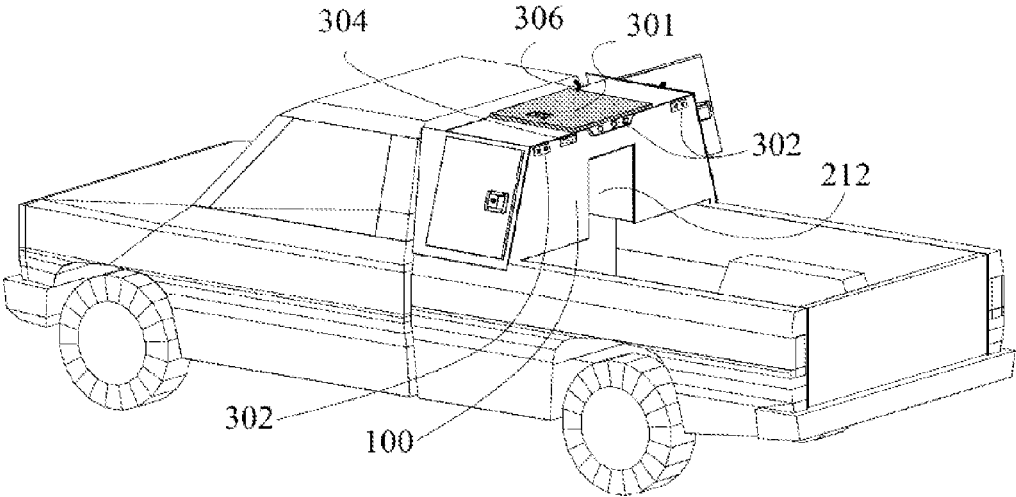


Fig. 6

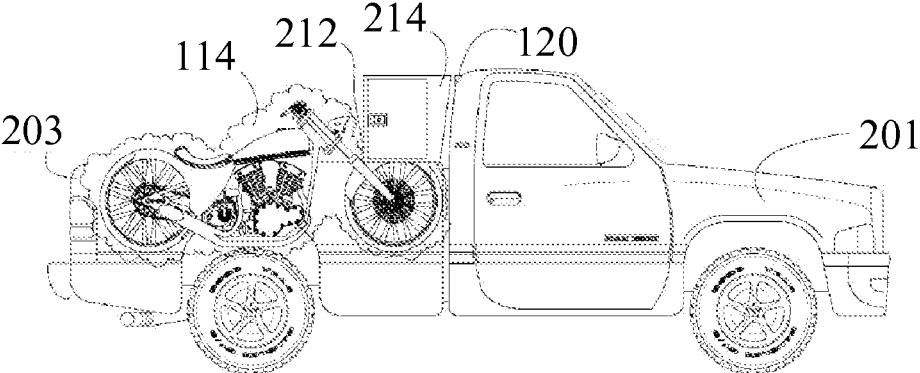


Fig. 7

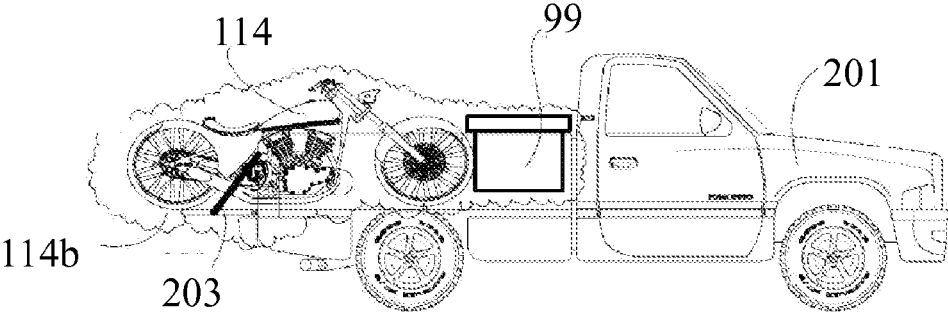


Fig. 8
PRIOR ART

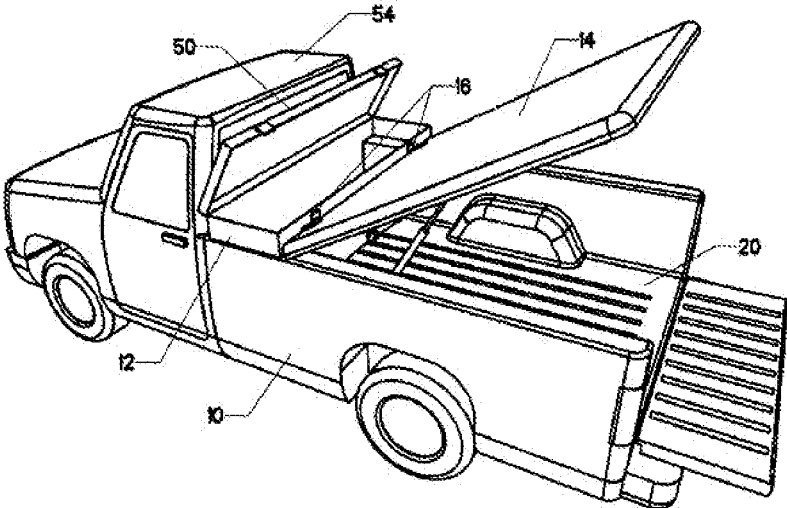


FIG. 9 PRIOR ART

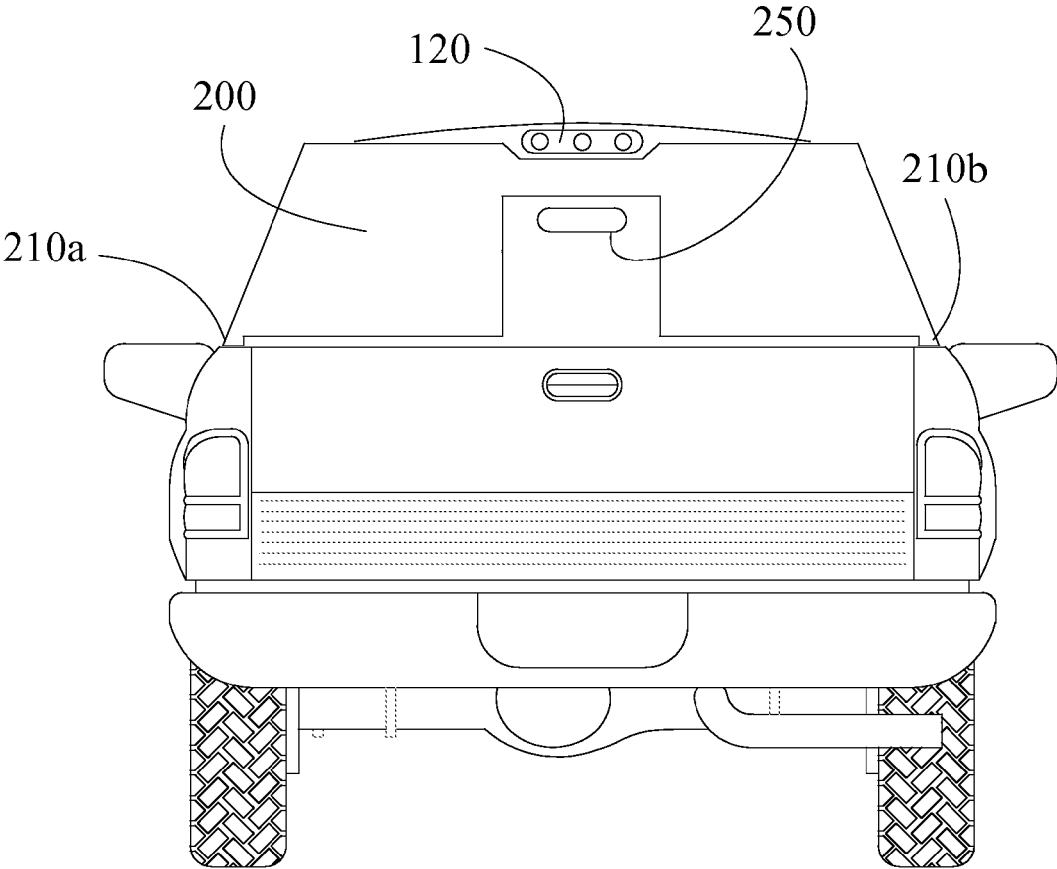


FIG. -10-

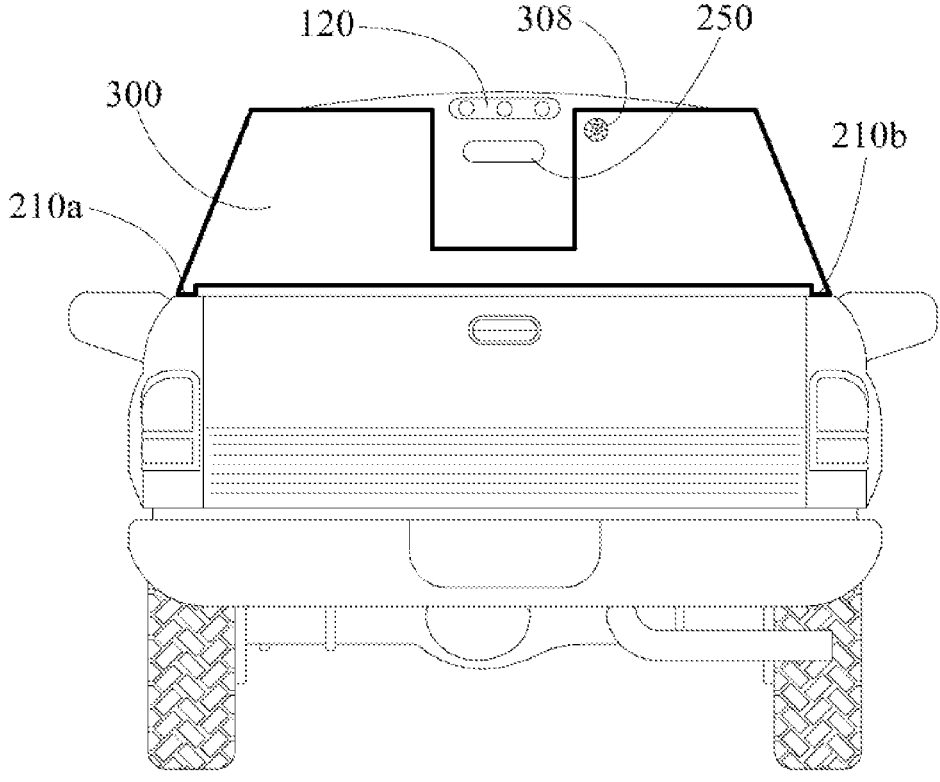


Fig. 11

PICKUP TRUCK MOUNTED TOOLBOX

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This invention claims the priority and benefit of co-pending U.S. Patent Application No. 61/964,000 filed Dec. 20, 2013 in the name of the same inventor, Thomas Inard Reed III, and entitled "Topbox" of which the entire application including disclosures are incorporated herein by reference.

STATEMENT REGARDING FEDERALLY FUNDED RESEARCH

[0002] This invention was not made under contract with an agency of the US Government, nor by any agency of the US Government.

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FIELD OF THE INVENTION

[0004] This invention relates generally to toolboxes, and specifically to toolboxes mounted behind the cabs of pickup trucks.

BACKGROUND OF THE INVENTION

[0005] Toolboxes for pickup truck usage are large boxes which extend into the bed volume of a pickup truck, that is, the toolbox sits projecting downward between the side rails of the pickup truck bed, with a pair of arms on the upper end which arms extend outward to sit upon the tops of the side rails of the bed.

[0006] Thus, a considerable amount of bed space is taken up.

[0007] An example of a conventional prior art pickup truck toolbox may be seen in FIG. 9, labeled PRIOR ART.

[0008] Cab 54 and bed 20 meet at the front end of the bed 20 and the toolbox is disposed at that location. Arm 12 sits atop the side rails 10 of the bed 20, however, the body of the toolbox extends downward into the bed volume 20 until it comes to rest on the floor of the bed or perhaps on just above the floor of the bed 20.

[0009] PRIOR ART FIG. 8 shows this as well: the toolbox extends completely into the bed, preventing the use of the bed for storage. Thus the gate 203 at the end of the bed must be opened for longer cargo, or the cargo must be placed with one or both ends above the toolbox or gate, rendering the vehicle difficult to drive and offering the chance that the cargo (such as motorcycle 114) might fall out.

[0010] Tonneau cover 14 may be seen to be opened and the prior art toolbox extends so far down into the bed volume that it is actually visible UNDER the tonneau cover 14. It is worth noting that the tonneau cover 14 must be shorter than the length of the bed 20 in order to allow for the length of the toolbox.

[0011] Finally, it will be seen that the top-mounted hatch 50 opens upward. This means that a user of the toolbox must open the hatch and then reach down in order to rummage for the desired tool. Obviously given the configuration seen, shelves would be difficult to employ since the topmost shelf would block the view of all the lower shelves.

[0012] In alternative configurations, the top hatch is broken into two smaller hatches which are hinged at the middle of the width of the toolbox, so they open upward from the side, not from the back of the toolbox.

[0013] It may be seen that having doors on the sides of the toolbox is impossible, since they could not open due to the presence of the side rails, blocking them.

[0014] The toolbox shown could not be raised up and placed over the bed of the pickup truck for a number of reasons. First, it would entirely block the view of the driver to the rear, preventing any usage of the rear view mirror. Second, it would prevent drivers and pedestrians behind the pickup from seeing the center high mounted brake light (not shown by the prior art FIG. 9). In addition, the arms which project from the top of the toolbox would not secure it to the side-walls. Finally, the top opening hatch would no longer be accessible without climbing on top of the roof of the cab of the truck or by removing the tonneau to allow entering the bed and then walking forward to the toolbox.

[0015] Significantly, the toolbox forces the dedication of a substantial portion of the bed volume to itself. The toolbox is a very heavy device and it is not practical to frequently install and remove it: once installed, it is nearly permanent. Thus the user loses a portion of the benefit of having a pickup truck.

[0016] One example of an alternative type of toolbox may be found at www.quickdrawtoolboxes.com, which shows a gun safe or tool box for placement across the back of a flat bed or pickup truck. This type of box has a low profile to avoid interfering with the field of view of the rear view mirror and to avoid blocking visibility of the third brake light.

[0017] However, this box does not teach any way to increase the height safely and thus to increase cargo capacity upward.

[0018] In addition, it has a sliding rack mechanism to bring out racks/bins (either gun racks in the gun embodiment, or tool bins in the others). This sliding mechanism is required in order to offer access to space near the centerline of the bed, but the mechanism comes at a cost in weight. It also takes up space within the box (which as noted cannot be very tall for safety reasons), adds cost in manufacturing, and requires a large amount of space on the side of the parked vehicle in order to be opened at all. Such mechanisms are subject to jamming, of course, rather like a kitchen drawer.

[0019] Worst of all, it is easy to imagine the sliding bin mechanism popping out as the vehicle goes around a corner, after which the vehicle will have a projection apparently in excess of four feet wide sticking out one side.

[0020] Finally, horizontal shelves are once again impossible in this design.

[0021] Thus it would be preferable to provide a pickup toolbox which does not take up any bed space.

[0022] It would further be preferable to provide a pickup toolbox which does not require the use of a tonneau of a different size than the bed volume's top surface.

[0023] It would further be preferable to provide a pickup toolbox which allows easy access without rummaging downward.

[0024] It would further be preferable to provide a pickup toolbox which allows the use of shelving for tools, but without blocking the view of users.

[0025] It would further be preferable to provide a pickup toolbox which meets all of these requirements and yet fulfills basic safety standards by NOT blocking the view of the third brake light.

[0026] It would further be preferable to provide a pickup toolbox which meets all of these requirements and yet fulfills basic safety standards by NOT blocking the usage by the driver of the rear view mirror.

SUMMARY OF THE INVENTION

General Summary

[0027] The present invention teaches a pickup truck toolbox which can be mounted to the bed side rails and sit well above them instead of projecting downward into the bed. The toolbox is secured to the top of the siderails by feet rather than arms, the feet disposed on the bottom of the toolbox. This allows for a wider box—since conventional boxes must sit in between the side rails, they must be narrower than the side rails, whereas the toolbox of the present invention sits above the side rails and projects out to their edges in embodiments.

[0028] Since the present invention may sit above the side rails and the bed volume, it occupies none of the space between the side rails thus allowing use of the full volume of the bed between the side rails and the floor of the bed. By this means the cargo capacity of the pickup truck is reduced by a smaller factor than for conventional toolboxes.

[0029] Since the toolbox sits above the side rails and behind the cab of the pickup truck, safety issues may arise, in particular from blockage of either the view of the driver when using the rear view mirror or from blocking visibility of the center mounted third brake light to other drivers. However, the invention may have a rear view tunnel through the lower portions, whereby the driver may use normally the rear view mirror, and may have a Liddy light valley across the top, whereby the brake light will remain visible to others behind the vehicle.

[0030] Fuel efficiency is always an issue when discussing truck equipment. In particular, profile (meaning herein frontal profile or frontal cross-section) must be maintained to be within the original profile of the truck cab. The profile of the toolbox of the present invention may generally match, be similar to, or sit within, the profile of the cab of the truck.

[0031] Furthermore, a fairing may be employed to improve fuel efficiency by eliminating the space between the pickup cab and the toolbox and thus preventing the swirl of air therebetween.

[0032] Side-mounted vertical hatches may allow both easier access than conventional toolboxes for pickups which open upward. The side mounted vertical hatched even allow the use of shelving within the interior space of the toolbox of the invention, thus allowing superior organization of tools and extremely efficient utilization of space, as well as convenience of access. The shelves may be removable, so that a larger space can be created when necessary.

Summary in Reference to Claims

[0033] It is therefore another aspect, advantage, objective and embodiment of the invention, in addition to those discussed previously, to provide a toolbox for use on a pickup

truck having a cab profile, a rear view mirror, a third brake light and a bed, the bed having two side rails separated by a bed width, the toolbox comprising:

[0034] a body having a top surface, a height, a toolbox width, and a plurality of feet disposed separated from one another by such bed width;

[0035] the plurality of feet being dimensioned and configured to mount atop such two side rails of such pickup truck bed, whereby such toolbox is mount on such pickup truck suspended above such bed and occupying no space within such bed.

[0036] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising:

[0037] a channel across the top surface, the channel dimensioned and configured to allow such third brake light of such pickup truck to be visible despite the presence of the toolbox.

[0038] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox wherein the toolbox is further dimensioned and configured to match, be similar to or sit within such cab profile of such pickup truck, whereby aerodynamic drag of the toolbox is minimized.

[0039] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising: a toolbox-to-cab fairing extending from the toolbox to the cab.

[0040] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising:

[0041] an undersurface, the undersurface having a rear-view tunnel therethrough, the rear-view tunnel being dimensioned and configured to allow usage of such rear view mirror.

[0042] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising:

[0043] at least two side-mounted hatches, each side-hatch mounted vertically on the body and dimensioned and configured to swing open horizontally without causing any opening of the top surface.

[0044] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising: a door latch on each side-mounted hatch.

[0045] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox further comprising:

[0046] at least one removable shelf disposed within the body.

[0047] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox wherein the feet are further dimensioned and configured to allow a vertical clearance between the body and such side rails, whereby a tonneau cover may be mounted upon such side rails without being blocked by the toolbox.

[0048] It is therefore another aspect, advantage, objective and embodiment of the invention to provide a toolbox wherein the top surface further comprises:

[0049] a lifting top hatch.

BRIEF DESCRIPTION OF THE DRAWINGS

[0050] FIG. 1 is an elevated orthogonal view of a preferred embodiment of the toolbox of the present invention.

[0051] FIG. 2 is a low-elevation orthogonal view of the preferred embodiment of the toolbox of the invention with the back side removed to show the interior, one side-mounted hatch open, and several removable shelves displayed.

[0052] FIG. 3 is a partial low-elevation orthogonal view of the preferred embodiment of the toolbox of the invention with the back side removed to show the interior with one removable shelf moved, creating a larger space.

[0053] FIG. 4 is an oblique right-rear elevational view of a pickup truck having the device of the invention installed, with one side-mounted hatch open, showing the fact that the invention takes up none of the bed volume between the side walls.

[0054] FIG. 5 is an oblique right-rear elevational view of a pickup truck having the device of the invention installed, showing that a normal-sized tonneau cover may be employed with the device installed without interference.

[0055] FIG. 6 is a left-rear oblique elevational perspective view of an alternative embodiment of the invention showing the space underneath available for cargo.

[0056] FIG. 7 is a partially cut-away side view of an embodiment of the invention with another motorcycle for cargo, while FIG. 8 is a PRIOR ART partially cut-away side view (equivalent to FIG. 7 in view) but showing the conventional toolbox in use compared to the toolbox of the invention in FIG. 7.

[0057] FIG. 9 is a PRIOR ART diagram showing a conventional pickup truck toolbox opening on the top and with a special tonneau cover which is shorter than the overall bed length.

[0058] FIG. 10 is a rear view of the invention showing clearly the relationship of the tunnel, the rear-view mirror, the 3rd brake light and the profile of the device.

[0059] FIG. 11 is a rear view of the invention showing clearly the relationship of the a channel which is deep enough to function as the tunnel, the rear-view mirror, the 3rd brake light and the profile of the device still substantially following the profile of the truck cab, as well as rear-view camera 308.

INDEX TO REFERENCE NUMERALS

[0060] Side rail 10
 [0061] Arm 12
 [0062] Tonneau cover (special size) 14
 [0063] Bed volume 20
 [0064] Top opening hatch 50
 [0065] Cab 54
 [0066] Conventional toolbox 99
 [0067] Body 100
 [0068] Motorcycle 114
 [0069] Motorcycle rear wheel 114b
 [0070] Liddy light (CHSML) 120
 [0071] First embodiment 200
 [0072] Pickup 201
 [0073] Brake light valley 202
 [0074] Gate 203
 [0075] Side-mounted hatches 204a, 204b
 [0076] Door latches 206a, 206b
 [0077] Door spring lock 208
 [0078] Feet 210a, 210b
 [0079] Rear view tunnel 212
 [0080] Toolbox-to-cab fairing 214
 [0081] Side shelves left/right 216a, 216b
 [0082] Center shelf 218
 [0083] Horizontal motion of removable shelf 220
 [0084] Vertical space 222

[0085] Truck bed (vacant) 224
 [0086] Sliding tonneau cover 226
 [0087] Body 300
 [0088] Top hatch 301
 [0089] Auxiliary brake lights 302
 [0090] Bed illumination light 304
 [0091] Wiring 306
 [0092] Camera 308

DETAILED DESCRIPTION

Glossary

[0093] As used herein a toolbox is a container specialized for holding tools, having characteristics which suit it for this particular purpose and make it preferable to general purpose containers. Thus most toolboxes are made of extremely durable materials such as sheet metal (and the toolbox of the present invention is also made of sheet metal stock in the preferred embodiment) or of extremely rugged polymers. For example, aluminum and steel and alloys of either one may be preferable. Toolboxes normally have provisions for locking mechanisms to prevent theft of tools, usually have divided spaces to allow sorting of tools by type or size and so on.

[0094] As used herein a pickup truck is a vehicle having a cab for human occupancy with a bed behind the cab. The bed normally is a large volume for hauling cargo, the volume defined by the side walls on either side. Many pickup trucks in fact sacrifice a second row of seats in order to extend the bed and thus increase cargo capacity. In addition, pickup trucks are distinguished from flat-bed trucks by having raised side-rails on each side of the bed and separated by the width of the bed. The side-rails allow cargo to be secured more easily, and small, heavy cargo can even be placed into the truck bed without further securing. Larger cargo, such as the motorcycle shown in the accompanying figures, may be secured by means of apertures or tie downs mounted on the side rails. These rail apertures may also be used to receive the feet of the present invention.

[0095] As used herein the term cab profile refers to the frontal view in both area and shape of the cab portion of the pickup truck. This cab profile may be seen in the accompanying diagrams. It will be appreciated that a key determiner of vehicular gasoline efficiency is frontal area and shape. In order to maximize fuel efficiency, the toolbox of the present invention is designed to mimic the cab profile both in frontal view area and frontal view shape, as can be seen in the accompanying diagrams. Note that is a general mimicry only, as the rear-view tunnel, and the brake light channel both alter the profile of the toolbox as shown in the diagrams to be smaller than the profile of the cab depicted, and to remain within the cab profile. Thus the toolbox profile may exactly match, partially match, be similar to, or simply sit within, the profile of the cab of the pickup truck.

[0096] A rear view mirror for the present disclosure's purposes refers to that mirror which is mounted within the cab and used to view either the bed of the pickup truck or the area behind the vehicle.

[0097] Usage of such rear view mirror refers to the ability of a vehicle driver, seated normally in the driver's seat of the cab, to look into the mirror and see some or all of the normal view offered by the mirror due to the presence of the rear view tunnel through the bottom surface of the body of the toolbox of the invention.

[0098] The rear view tunnel is an inverted channel, having a length and width, passing across the bottom surface of the body of the toolbox entirely from front to back and thus allowing the normal usage of the rear view mirror.

[0099] The “third brake light” or “Liddy light” (in honor of the individual who required their introduction) or technically the CHMSL, “center high mounted stop lamp” refers to a vehicular safety light used for indicating that the brake pedal has been pushed. In the past, two lights, mounted on the side rails at the rear end of the pickup truck, were normal. The third brake light, mounted upon the top, center, rear of the cab of a vehicle, added significantly to the visibility of such lights and thus increased vehicular safety. It is estimated that the reduction in rear-end collisions may be as high as 5% due to Liddy lights. Given the fact that car crashes in the US (all types, not just rear end collisions) kill 40,000 Americans per year, even a slight reduction in one type of crash is obviously cost effective.

[0100] For purposes of this application, feet are defined to be objects mounted on an objects’ bottom surface which stabilize and/or attach the object the surface upon which it rests. Thus, the feet of the present invention are dimensioned and configured to secure the body of the invention to the side rails of the pickup truck, and to hold suspended out of the bed of the pickup truck so that the bottom surface of the body of the present invention does not subceed to the top of the side rails and thus never enters the bed volume.

[0101] Vertical clearance: note that in the preferred embodiment of the invention, the feet actually hold the bottom surface of the body of the invention sufficiently above the height of the rails (vertical clearance) so that the invention does not impede the normal usage of a tonneau cover for the bed.

[0102] The feet of the invention may fit the shape of the top of the side rails, or they may enter apertures on the side rails’ top surfaces, or may engage tie downs, all of which will be considered to be dimensioned and configured to secure to the side rails. Bolts, tie-downs, latches, holds, ties, chains, cables, fasteners and the like may be parts of the feet or truck.

[0103] A channel is defined, for purposes of this invention, to be a depression having both a length and a regular width. The width of the channel across the top surface may advantageously be sufficient to allow those behind the pickup truck to see the Liddy light despite the presence of the raised toolbox of the invention. The length of the channel should be sufficient for it to extend across the top surface from front to back, so as to avoid blocking the view of the CHMSL.

[0104] For purposes of this invention, a fairing is an aerodynamic device designed to reduce drag. In the present invention, the toolbox-to-cab fairing is designed to cover a gap which would exist between the back side of the cab and front side of the body of the toolbox. (This gap exists because pickup truck beds are slightly separated from the back of the cab, and of course because the feet of the invention, resting on and secured to the side rails, may require the body to be slightly removed from the cab.) Use of the fairing will prevent the formation of vortices in which air is captured and swirled into the gap behind the cap.

[0105] A hatch refers to a doorway which may be opened to retrieve tools from within the toolbox of the invention. A side-mounted hatch mounted vertically is a hatch specifically NOT opening up the top surface of the invention but instead opening up the side of the invention. Note that on conventional pickup truck mounted toolboxes, locating such doors

on the side of the body would be pointless as the sides of conventional toolboxes sit inside of the volume of the bed and up against the interior sides of the side rails, and beyond being hard to reach would probably be impossible to open.

[0106] A shelf, for purposes of this invention, is removable when a user may easily detach it and slide it sideways or remove from the toolbox entirely, thus ceasing to partition an interior body volume and instead creating a single larger volume.

End of Glossary

[0107] FIG. 1 is an elevated orthogonal view of a preferred embodiment of the toolbox of the present invention. In the presently preferred embodiment and best mode presently contemplated for carrying out the invention, the first embodiment toolbox body **200** of the invention may have a brake light valley **202** entirely crossing the top surface from front to back and thus rendering the third brake light visible behind the truck.

[0108] Side-mounted hatches **204a** and **204b** may be seen: **204a** is visible on the outside, nearside, and closed. On the other hand hatch **204b** may be seen on the far side, visible on the inner side, and partially open.

[0109] The use of side-mounted hatched immediately renders the toolbox of the invention convenient for access: the user may stand and look at approximately chest height instead of bending over and rummaging at waist height. Side access by means of the side hatches **204a** and **204b** furthermore allows the use of shelving. Yet further, the user does not have to lift side-mounted vertical hatches to open and close them: the weight of a conventional vertically opened hatch is surprising, and in fact some prior art devices actually use gas shocks to aid the opening.

[0110] Door latches **206a**, **206b** may be seen, again from front and back sides. The latches lock, a virtual necessity, as theft rates on construction and work sites can also be rather surprising and tools are quite expensive.

[0111] Rather than a gas shock or a prop, door spring lock **208** suffices for the vertically mounted hatches **204a**, **204b**. The spring may be rather long and flexible and may be secured at opposite ends to the interior side of the hatch and the interior of the toolbox. In use, this type of spring may be pulled and elongated to open the hatch, but when the hatch is pushed open to the point at which the spring bends against the hatch hinge, the spring **208** may begin to act to hold the door open.

[0112] The side rails of the pickup truck bed, which define the volume thereof, allow the bottom surface of the toolbox to support the toolbox body entirely outside (above) the bed volume. The bottom surface may then have bottom ends which may secure the toolbox to the siderails, or may have securing points thereon, which securing points may then support the toolbox. Advantageously, the securing points may be feet.

[0113] Feet **210a**, **210b** may be seen and are instrumental in making the invention useful. It will be understood that the feet secure to the tops of the side rails and may be dimensioned and configured to various type of pickup truck hard points, which include but are not limited to tie down, apertures, posts and other devices. The feet secure to the side rails at these points, or may secure to the side rail by clamping action, or may simply be dimensioned and configured to match the contour of the top of the side rails. In general, the shape of the

feet may depend upon the exact model of pickup truck involved and the exact type of securing arrangements it has.

[0114] In addition, pickup truck beds come in a variety of widths. The feet may be disposed by a separation distance of the width of the bed. Thus for narrower beds, the feet will be closer to the center, while for wider beds the feet may be further apart. This may be accomplished with movable feet, by having different models of toolboxes for different pickups (one preferred embodiment) and in other ways.

[0115] Furthermore the feet **210a** and **210b** may provide a vertical clearance between the bottom of the box and the top of the side rails of the truck bed. This allows the use of rolling type tonneau covers without any change to the toolbox. (Note that in alternative embodiments a lifting type covers such as that shown in FIG. 9 (Prior Art) may be used with a sloped bottom surface of the tool box to allow the tonneau to swing up under the bottom of the toolbox, however, this is not the presently preferred embodiment.)

[0116] Rear view tunnel **212** is another safety factor. The rear view tunnel **212** allows the driver to use the rear view mirror normally, and this normal usage provides inherent safety when backing up. This furthermore allows a view of the cargo being carried in the bed. The tunnel shown is merely exemplary, the tunnel can be of any useful width and profile. The "tunnel" may but does not need to be an actual aperture through the toolbox body, it may, as shown, simply be a channel rather like a larger mirror image of the brake light valley.

[0117] Toolbox-to-cab fairing **214** may be seen to help match the edge of the toolbox **200** to the profile of a cab. Since a small gap will be normal (due to the small gap between the bed/the securing points on the side rails and the back side of the cab) wind as the truck drives will be generated in a vortex which tries to swirl into the gap, increasing aerodynamic drag. A fairing, much like a fairing on an airplane or sports car, can prevent the swirl and the waste of energy.

[0118] FIG. 2 is a low-elevation orthogonal view of the preferred embodiment of the toolbox of the invention with the back side removed to show the interior, one side-mounted hatch open, and several removable shelves displayed. Side shelves **216a**, **216b** (left and right) are on both sides of center shelf **218** and in the embodiment pictured actually combine to make a single long shelf across the entire width of the toolbox. In this view both the brake light valley and the rear view mirror tunnel may be seen clearly, as well as the ability of the toolbox to allow a wide range of customizations of the interior space. Obviously additional shelves may be employed at lower or higher levels than the shelves **216a**, **216b** shown. In addition, the shelves may reduced in number or entirely removed: FIG. 3 is a partial low-elevation orthogonal view of the preferred embodiment of the toolbox of the invention with the back side removed to show the interior with one removable shelf moved, creating a larger space. Horizontal motion of a removable shelf is depicted by arrow **220** as a user simply removes one shelf and pushed it to rest on another shelf. It may be seen that this then creates a considerably larger, unitary vertical space **222**.

[0119] FIG. 4 is an oblique right-rear elevational view of a pickup truck **201** having the device of the invention installed, with one side-mounted hatch open, showing the fact that the invention takes up none of the bed volume between the side walls. Truck bed **224** is seen to be vacant and completely available for cargo.

[0120] There is a trade off in terms of cargo space. While more bed volume is procured by means of the present invention, the space above the bed volume (above the side rails) is lost until the top of the toolbox is reached. However, in practical use, a pickup truck's bed volume, which is secured by side rails and the rear gate **203** (FIG. 7), is much more likely to be used on a daily basis, and is much more secure.

[0121] FIG. 5 an oblique right-rear elevational view of a pickup truck having the device of the invention installed, showing that a normal-sized tonneau cover may be employed with the device installed without interference. Sliding tonneau cover **226** sits underneath the device of the invention due to the vertical clearance provided by the feet **210a**, **210b** (FIG. 1).

[0122] FIG. 6 is a left-rear oblique elevational perspective view of an alternative embodiment of the invention. Body **100** is seen in place. Cargo such as a motorcycle rear wheel (FIG. 8) might project slightly into rear view tunnel **212**, if necessary, and other cargo may use the larger horizontal space under the rest of the toolbox and closer to the floor of the bed volume.

[0123] FIG. 6 also displays some optional parts which may become the preferred embodiment and best mode.

[0124] Top hatch **301** may be located anywhere on the top surface, may have a latch, and may lock. It may be used to access wiring, it may be used to access another compartment or the main compartment, it maybe hinged in various directions and may be any size from the full size of the toolbox down to quite small.

[0125] Third brake light **302** may be seen to be mounted on the toolbox, and may not be limited to a single light but can be several lights. Many modern pickup trucks have a wiring connector, for example, near the pickup truck's third brake light, which provides power to an auxiliary brake light mounted upon a camper, since campers tend to block the view of the third brake light. This camper wiring harness may be used for the toolbox of the present invention. Thus, the toolbox may have one or more auxiliary brake lights **302** which are powered by a wiring connector **306** which in turn is powered by the pickup truck's wiring connector. Thus the present invention may be mounted, plugged into the truck's pre-existing wiring connector and immediately have one or more additional third brake lights.

[0126] One potentially useful combination would be to have at least one auxiliary brake light mounted on each end of the toolbox, near the upper corners of the back side.

[0127] Further alternative embodiments include the use of a bed illumination light **304**. This light is similar to the brake lights but it would be used not while driving but to illuminate the bed at night or in the dark. This light **304** might be white, yellow, or daylight spectrum in nature rather than being brake light color (which tends to be close to red). A switch may be provided.

[0128] FIG. 7 is a partially cut-away side view of an embodiment of the invention with another motorcycle for cargo, while FIG. 8 is a PRIOR ART partially cut-away side view (equivalent to FIG. 7 in view) but showing the conventional toolbox in use compared to the toolbox of the invention in FIG. 7. Conventional toolbox **99** (PRIOR ART, for example FIG. 8) sits down inside of the bed of the pickup truck, absolutely removing the forward part of the bed volume as usable space. By comparison, the box of the invention

allows the use of that space and yet also allows for much easier and more efficient access to the items within the toolbox.

[0129] In particular, be comparing FIG. 7 and FIG. 8 side-by-side it may be seen that the gate 203 is OPEN for the PRIOR ART in order to make space to precariously balance motorcycle rear-wheel 114b, while for the invention, the gate 203 is closed and the motorcycle rear-wheel is securely disposed inside of it.

[0130] DODGE® and RAM® are trademarks whose owners are not associated with the present applicant. The present invention may be used with any type of pickup truck, regardless of manufacturer or model.

[0131] FIG. 10 is a rear view of the invention showing clearly the relationship of the tunnel, the rear-view mirror, the 3rd brake light and the profile of the device. In this embodiment of the device the body profile is still within the cab profile overall, but no longer closely follows it. Liddy light (CHSML, 3rd brake light) 120 is plainly visible to any viewer, and the rear window of the cab is largely un-occluded. Importantly, rear view mirror 250 can be seen to have a clear field of view to the rear. Testing by the inventor has determined that proportions such as those shown in these diagrams are appropriate to provide a rear field of view from the mirror. Due to the short distance from the driver's eyes to the fairly narrow rear view mirror, the tunnel need to not be the entire width of the rear of the cab.

[0132] FIG. 11 is a rear view of the invention showing clearly the relationship of the a channel which is deep enough to function as the tunnel, the rear-view mirror, the 3rd brake light and the profile of the device still substantially following the profile of the truck cab. Body 300 has in this embodiment a channel which is deep enough to allow rear view mirror 250 to be employed: the tunnel is inverted, comprising a deepening of the channel.

[0133] FIG. 11 also shows the camera 308. Rear view camera 308 may have a display (not shown) mounted in the cab of the truck, or may be used wirelessly, by network etc. The rear view camera 308 may have a field of view substantially similar to the field of view of the rear view mirror 250.

[0134] The disclosure is provided to allow practice of the invention by those skilled in the art without undue experimentation, including the best mode presently contemplated and the presently preferred embodiment. Nothing in this disclosure is to be taken to limit the scope of the invention, which is susceptible to numerous alterations, equivalents and substitutions without departing from the scope and spirit of the invention. The scope of the invention is to be understood from the appended claims.

What is claimed is:

1. A toolbox for use on a pickup truck having a cab profile, a rear view mirror, a third brake light and a bed, the bed having two side rails separated by a bed width, the toolbox comprising:

a body having a top surface, a bottom surface, a height, a toolbox width, and a plurality of bottom ends disposed separated from one another by such bed width;

the plurality of bottom ends being dimensioned and configured to mount atop such two side rails of such pickup truck bed, whereby the toolbox is mount on such pickup truck suspended above such bed, and

a rear-view tunnel through the body, the rear-view tunnel being dimensioned and configured to allow usage of such rear view mirror.

2. A toolbox for use on a pickup truck having a cab profile, a rear view mirror, a third brake light and a bed, the bed having two side rails separated by a bed width, the bed side rails defining a bed volume therebetween, the toolbox comprising:

a body having a top surface, a height, a toolbox width, and a plurality of securing points disposed separated from one another by such bed width;

the plurality of securing points being dimensioned and configured to mount atop such two side rails of such pickup truck bed, whereby the toolbox is mount on such pickup truck suspended above such bed and occupying no space within such bed volume;

a third brake light visibility feature.

3. The toolbox of claim 1, wherein the securing points are feet.

4. The toolbox of claim 3, wherein the third brake light visibility feature further comprises:

a channel across the top surface, the channel dimensioned and configured to allow such third brake light of such pickup truck to be visible despite the presence of the toolbox.

5. The toolbox of claim 3, the pickup truck further having a power output for an auxiliary brake light, and further wherein the third brake light visibility feature further comprises:

an electrical connector to such power output, and at least one auxiliary brake light attached to the toolbox and powered by the electrical connector.

6. The toolbox of claim 3, wherein the toolbox is further dimensioned and configured to match such cab profile of such pickup truck, whereby aerodynamic drag of the toolbox is minimized.

7. The toolbox of claim 6, further comprising: a toolbox-to-cab fairing extending from the toolbox to the cab.

8. The toolbox of claim 2, further comprising:

a rear-view camera upon the body, the rear-view camera disposed so as to have a field of view similar to such rear view mirror.

9. The toolbox of claim 3, further comprising:

at least two side-mounted hatches, each side-hatch mounted vertically on the body and dimensioned and configured to swing open horizontally without causing any opening of the top surface.

10. The toolbox of claim 9, further comprising: a door latch on each side-mounted hatch.

11. The toolbox of claim 3, further comprising:

at least one removable shelf disposed within the body.

12. The toolbox of claim 3, wherein the feet are further dimensioned and configured to allow a vertical clearance between the body and such side rails, whereby a tonneau cover may be mounted upon such side rails without being blocked by the toolbox.

13. The toolbox of claim 3, wherein the top surface further comprises:

a lifting top hatch.

14. The toolbox of claim 5, further comprising:

a bed illumination light attached to the toolbox and disposed so as to illuminate such bed of such pickup truck, the bed illumination light also being attached powered by the electrical connector.

- 15. The toolbox of claim 1, further comprising:
an undersurface, the undersurface having the rear-view
tunnel therethrough.
- 16. The toolbox of claim 4, wherein the channel is dimen-
sioned and configured to allow use of such rear view mirror.

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