Dec. 11, 1923. 1,477,111

E. R. EATON

TENT ATTACHMENT FOR MOTOR VEHICLES

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FIG. 1.

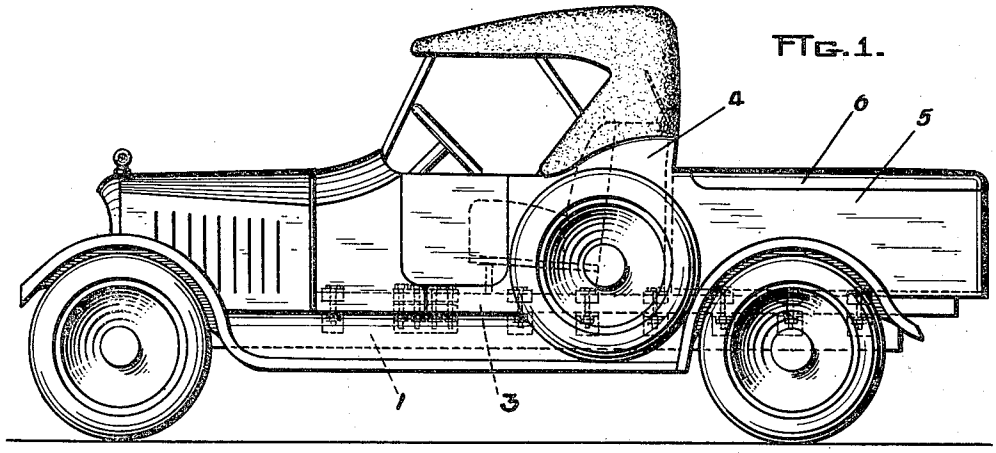


FIG. 3.

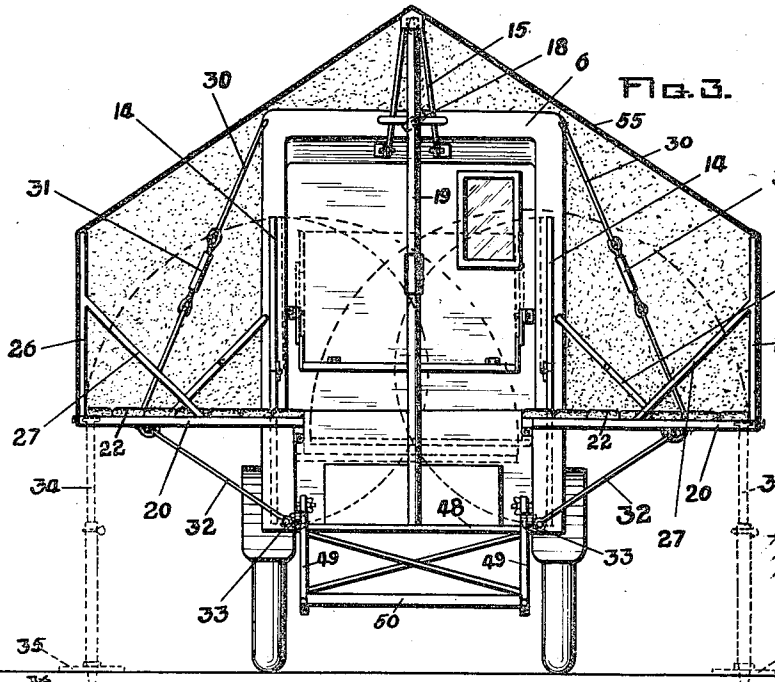
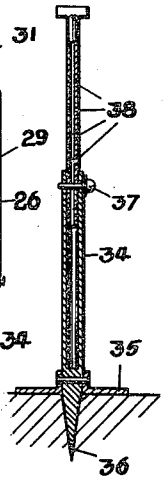


FIG. 7.



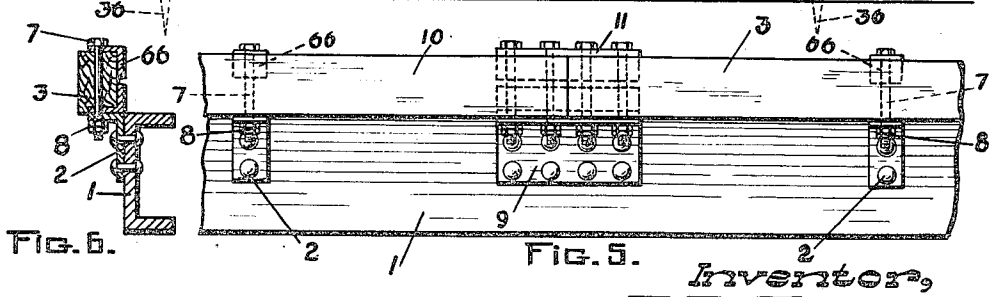


FIG. 6.

FIG. 5.

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Fig. 2.

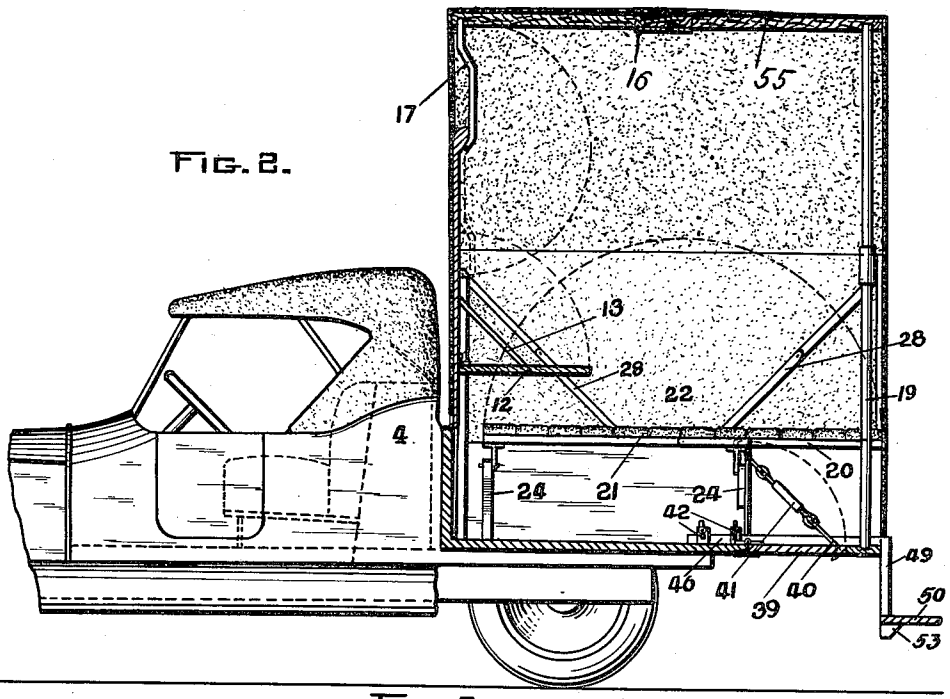


Fig. 6.



Fig. 8.

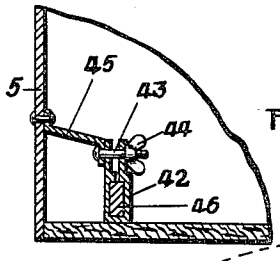


Fig. 10.

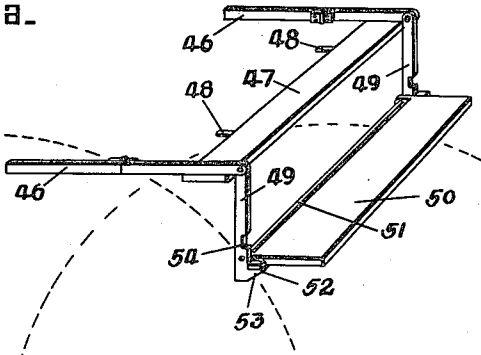
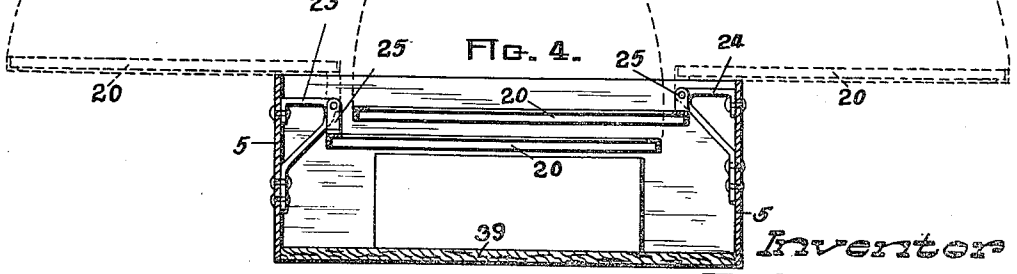


Fig. 4.



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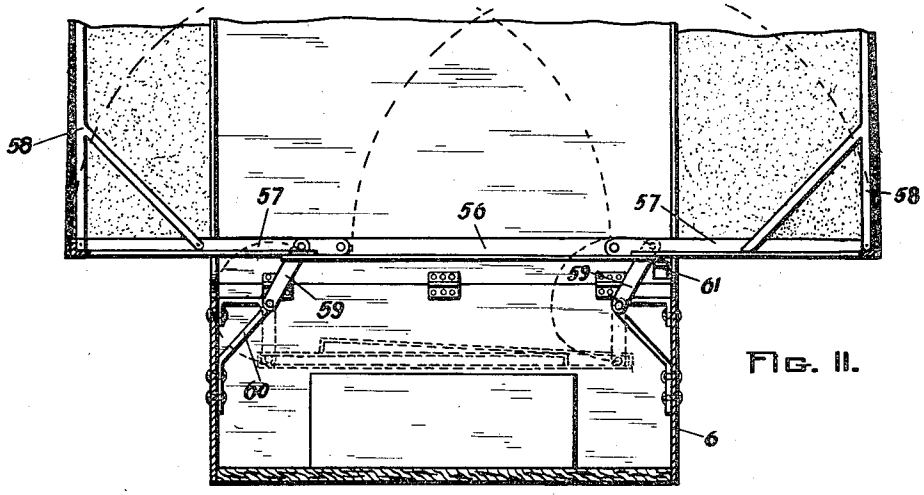


Fig. II.

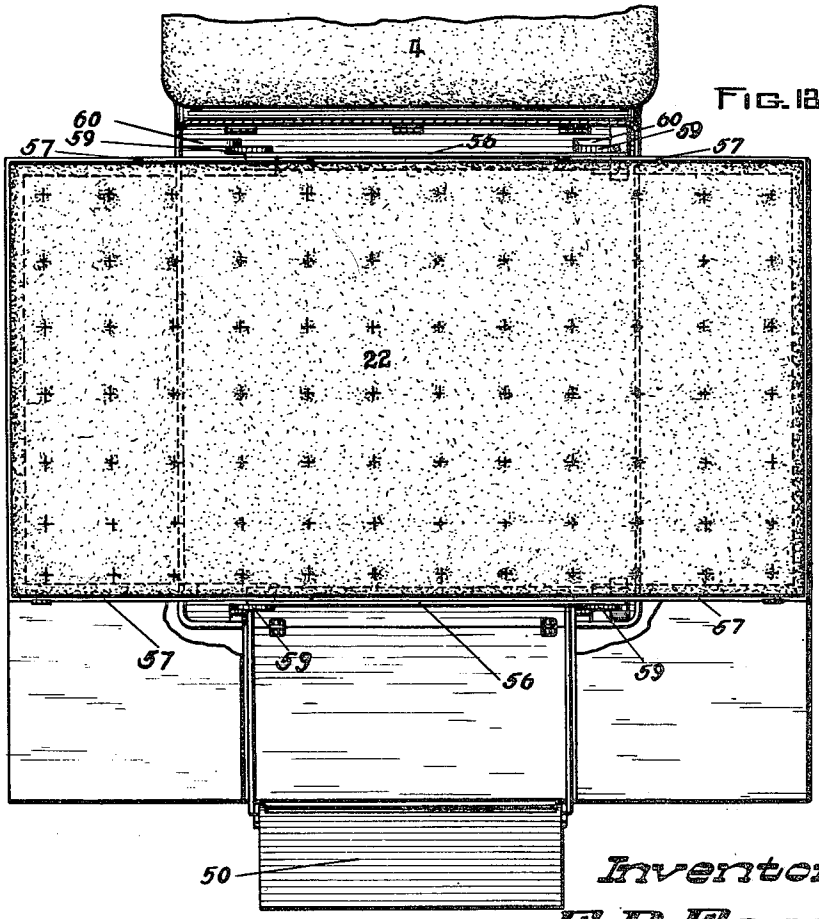


Fig. 18.

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UNITED STATES PATENT OFFICE.

EDWIN RUSSELL EATON, OF ORILLIA, ONTARIO, CANADA.

TENT ATTACHMENT FOR MOTOR VEHICLES.

Application filed August 3, 1922. Serial No. 579,442.

To all whom it may concern:

Be it known that I, EDWIN RUSSELL EATON, a subject of the King of Great Britain, and a resident of the town of Orillia, in the county of Simcoe, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Tent Attachments for Motor Vehicles, of which the following is the specification.

My invention relates to improvements in tent attachments for motor vehicles and the object of the invention is to devise a boot in rear of the driver's seat in which the top can be opened up and bed frames supported therein swung out into the operative position and covered by the tent top for constituting a sleeping compartment.

A further object is to devise means whereby the tent top can be readily removed and the bed frames collapsed and swung into the inoperative position within the boot, with the minimum of trouble, the entire bedding and tent top being contained in the boot when not in use.

A still further object is to devise a boot portion combined with the driving seat, said boot portion and driving seat being readily removable from the chassis and replaced by the ordinary touring or other body.

Another object is to devise detachable means for supporting the bed frames when in their extended position and yet another object is to devise a foot-board extension to the boot tail-board which when turned into the operative position, will provide a step as well as extend the boot sufficiently to allow full length beds to be used.

My invention consists of a tent attachment constructed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawing in which:

Fig. 1 represents a side elevation of a motor car, showing a boot constructed according to my invention applied thereto, the same being in the closed position.

Fig. 2 is a similar view to Figure 1 showing the tent attachment in the operative position in section.

Fig. 3 is a rear elevation of a car provided with my tent attachment showing the rear flap of the tent portion removed.

Fig. 4 is an enlarged cross sectional view of a boot showing the beds in position.

Fig. 5 is an enlarged side elevation of one of the side members of the chassis, showing the means for securing the boot and driving seat thereto.

Fig. 6 is a cross section thereof.

Fig. 7 is a vertical section of the means for supporting the bed portions when in the extended position.

Fig. 8 is a detail of the hinge connection of the side members of the bed frames.

Fig. 9 is a cross sectional view of one of the sides and a portion of the bottom of the boot, showing the means for attaching the rear foot-board thereto.

Fig. 10 is a perspective detail of the rear foot-board showing the same in the open position.

Fig. 11 is a cross sectional view of a modified form of tent attachment in which only one bed is used, such attachment being particularly applicable to small cars, and

Fig. 12 is a plan view of the modified form.

Like characters of reference indicate corresponding parts in the different views.

1 are the side members of the chassis frame of the car which are provided with outwardly extending brackets 2 riveted or otherwise secured thereto upon which rest the side members 3 of the body portion, made up of the seat portion 4 and the boot 5. 66 are angle irons adapted to extend about the inner corners of the side members 3, and 7 are bolts extending through the horizontal webs of the angle irons, through the members 3 and through the horizontal webs of the brackets, said bolts being provided with suitable lock-nuts 8. The brackets, angle irons, bolts and nuts form a readily detachable connection for the body portion which can be easily detached in order to put on the standard body when such is required.

Referring to Figure 5 it will be seen that the members 3 are cut across in the vicinity of the doors and the side brackets 9 of similar construction to the brackets 2 are provided in order that the forward ends of the side members 3 and the rear ends of their forwardly extending portions 10 may rest thereon. In this instance a wider angle iron member 11 is provided in which the angle iron member and the brackets are secured

to the respective members 3 and 10 in the manner above described.

The boot 5 is provided with an upwardly swingable top 6 hinged at its forward end so that it may be turned up into the position illustrated in Figures 2 and 3, and thus form a support for the forward end of the ridge-pole of the tent top, as well as to provide means for supporting a collapsible table 12 which is hinged to the rear face of such boot top and provided with the collapsible supporting rods 13 for holding it in the horizontal position when opened, said table being adapted to turn up against the boot top when it is desired to close the same.

14 are longitudinally extending side members secured to the rear face of the boot top at their upper end, and divided intermediately, the divided portions being hinged together so as to be capable of being swung laterally. When the device is in the inoperative position the lower portion of each member is swung up to the upper member as indicated in Figure 3, whereas when the boot top is turned up into the position illustrated in Figures 2 and 3, the lower portions are turned downwardly as indicated in dotted lines so that they engage the rear face of the boot front, and thus prevent the boot top swinging down as would otherwise occur.

The boot top 6 is provided with an upwardly extending hinged bipedal strut 15 extending upwardly from the free end of the top and its apex adapted to be inserted into the forward portion of the ridge-pole 16, said ridge-pole being preferably jointed intermediately of its length. The bipedal member 15 has an offset intermediate portion 17 adapted to engage the edge of the table when the latter is folded up against the top, a clip 18 being provided for holding the bipedal member in position. 19 is the rear supporting pole of the tent attachment, said pole being preferably jointed intermediately of its length to facilitate carrying it, the upper end of the pole being inserted into the ridge-pole 16.

20 and 21 are the foot and main portions respectively of the bed frames, the main portions being preferably longer than the foot portions, each including the head portion. 22 are the bed mattresses. The portions 20 are hinged to the portions 21 in the manner illustrated in Figure 8 wherein the side rails of each portion are of angle iron form, the side rails of each portion 20 being adapted to lie on top of the corresponding webs of the side rails of the portions 21, it being understood that two bed frames are preferably provided, as is illustrated in Figures 3 and 4, such frames being normally hinged in the boot as hereinafter described.

23 and 24 are inwardly extending brackets mounted on the inner faces of the boot sides, the brackets 24 being relatively higher than the brackets 23, and said portions 21 of the bed frame being provided with lugs 25 adapted to be pivotally connected to the brackets 23 and 24 respectively, so that when the frames are in the position illustrated in Figure 4 they will lie snugly in the boot and when they are turned out they will assume the position shown in dotted lines in that figure and also in full lines in Figure 3.

26 are upwardly extending corner struts provided on the bed frame portions 20 and 21 respectively and adapted to be hinged so as to be capable of being turned down longitudinally, each strut 26 being provided with the rigid laterally extending brace 27 hinged at its lower end to the particular bed portion and 28 is an intermediately hinged brace adapted to be hinged at its upper end to each strut and at its lower end to the corresponding side rail of each of the bed portions, the hinged braces being adapted to be collapsed when it is desired to turn the struts down into their inoperative position wherein they lie substantially flat on the bed frame.

29 are braces detachably connected at their upper ends to the rear face of the boot top 6 and pivotally connected at their lower ends to the forward sides of the cross rails of the bed frame, in order to prevent the forward ends of the beds being accidentally turned up, due to wind getting under the same when the beds are in the operative position. 30 are flexible guys connected at their upper ends to the corners of the free end of the boot top and connected at their lower ends to the forward cross rails in order to support the forward portion of the bed frames, said guys being provided with intermediate adjusting mechanism such as the turn buckles 31. The rear cross rails of the bed frame portions 20 are provided with rods 32 pivotally connected thereto and adapted to hook onto studs 33 at the rear of the boot in order to support the bed frames and prevent the rear ends thereof being forced upwardly under the influence of wind or any other cause when such beds are in the operative position. 34 are telescopic standards which are adapted to be detachably secured to the bed frames in the vicinity of the rear of the portions 20 and to extend down into the ground, the lower ends of the lower standards being provided with the pivoted cross bars 35 and the spikes 36, said cross bars preventing the spikes going too far into the ground. The upper portion of each standard telescopes into the lower portion and can be held in any adjusted position relatively thereto by means of the pin 37 which is adapted to be inserted through one of the holes 38 in such upper portion. The method of applying these

standards to the bed frames is shown in dotted lines in Figure 3 and such standards may be used or not, as desired.

In constructing the boot it is desirable to keep it as short as possible in order that the appearance of the same will not be unsightly when the tent attachment is to be packed away therein, but as such length would be insufficient to accommodate the full length bed frames when in the open position, I hinge the tail board 39 to the rear of the bottom of the boot and turn it down into the horizontal position, supporting it by means of the side guys 40 provided with suitable adjusting mechanism such as the turn buckles 41.

I then provide socket members 42 provided with slit upper ends through which extend the bolts 43 provided with the wing nuts 44, said sockets being suitably supported on the bottom of the boot by the brackets 45 secured to the sides of the same. 46 are hinged longitudinal members adapted to be inserted into the sockets 42 and to be clamped therein by tightening up the wing nuts 44, said hinged members 46 being mounted on the lateral bar 47 provided with dowels 48 in its forward face adapted to be inserted into corresponding holes in the rear face of the tail board when the same is turned down. The rear ends of the members 46 extend rearwardly of the cross bar 47 and have hinged thereto the step board supports 49 which are in turn pivotally connected at their lower ends to the foot board 50 by the cross rod 51. The ends of the foot board 50 are provided with laterally extending lugs 52 which engage feet 53 on the lower ends of the foot board supports when such foot board is turned down into the operative position. When it is turned up the lugs 52 are received in recesses 54 in the faces of such foot board supports.

55 is the tent top adapted to extend over the ridge-pole 16, over the boot top 6 and to be supported at its corners by means of the struts 26.

Referring to the modification illustrated in Figures 11 and 12 in which the boot is provided with only one collapsible bed frame extending crosswise thereof and adapted to be received thereon when in the operative position 56 represents the central portion of such bed frame to which are hinged the end portions 57, provided with corner struts 58 constructed in identical manner to the corner struts 26. The portions 57 are provided intermediately of the length of their side rails with links 59 which are pivotally connected to such side rails, and the other ends of the links are pivotally connected to the brackets 60 adapted to be secured to the inside faces of the sides of the boot 5, it being understood that four brackets 60 are provided, two at the front side of the bed frame and two at the rear thereof.

I will now describe the manner in which the form of device illustrated in Figures 1 to 10 is operated:

Assuming that the entire device is contained in the boot and that such boot is closed as is illustrated in Figure 1, I turn up the boot top 6 and turn outwardly the portions of the bed frame 20 and 21. I then turn rearwardly each portion 20 so that it is in alignment with the corresponding portion 21 wherein such portions will rest on the top of the sides of the boot. I now apply the mattresses 22, having turned up the struts into the position illustrated in Figure 3, such struts being held in the requisite position by means of the hinged braces 28. The free portions of the members 14 are turned downwardly about their hinges to support the boot top in the required vertical position, the tent top 55 is thrown over the upright boot top 6 by turning up the bipedal member 15 into the position illustrated in Figure 3 and by stepping the rear pole 19 in the cross bar 47 the jointed ridge-pole 16 can be applied, the cleat 18 holding the bipedal member in the up position and thus position the tent top 55 over the boot. I now apply the guys 30, adjusting them to the required tightness by means of the turn buckles 31, also applying the rod members 32 and if desired, the supporting standards 34. The tent top 55 is now thrown over the struts, and suitably fastened down along the sides of the bed frames or otherwise, as desired.

By loosening the thumb screws 44 upon the tail board 39 being turned down, the members 46 can be pushed into the sockets 42 and the thumb nuts tightened. The dowels 48 of the cross bar 47 being inserted into corresponding holes in the rear end of the tail board 39. The rear foot board supports 49 are now swung down into position and the foot board opened out into the position illustrated in Figure 10. The device is now ready for use.

In dismounting my device the operation above described is reversed, all the detachable parts being contained in the boot in transit, it being understood that the longitudinal members 46 are slid out of the sockets and that the whole foot board attachment collapses up into the closed position with the hinged ends of the longitudinal members 46 turned inwardly. The fitting is then placed in the boot.

When the boot top 6 is turned upwardly the hinged table can be swung down into the operative position illustrated in Figure 2, wherein it is held by the hinge braces 13.

In operating the modified form of bed frame illustrated in Figures 11 and 12 the frame, collapsed as illustrated in dotted

lines in Figure 11 it is swung up into its uppermost position and the end portions 57 then turned outwardly as illustrated. It will be seen that in this position the links 59 are over the upper vertical position and such bed frame is supported in the open position by means of the lug 61. The struts 58 are now turned upwardly as described above and the tent top applied thereto, it being understood that the ridge-pole and supporting pole and the attachment of the ridge-pole to the boot top when in the vertical position are identical to that described in the two bedded type.

In constructing my tent attachment I have designed it especially so that the entire boot can be applied to a car to replace the ordinary body when going camping. It will be obvious that provided the ordinary body is provided with holes so spaced as to register with holes in the brackets 2 and 7, such body will be interchangeable with the special boot, and this interchangeability can be conveniently arranged for whether the type having the boot only is used or that having the boot in combination with the driving seat.

From the above description it will be seen that I have devised a simple and effective tent attachment for motor vehicles which can be readily applied to the ordinary car and which in the case of the larger type of car, will accommodate two beds. I have also provided a modified form applicable to smaller cars in which a single bed is provided, but such bed would be of sufficient width to accommodate two people.

What I claim as my invention is:

1. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a bed frame comprising a main portion including a head portion, a foot portion hinged to the main portion and folded over thereonto prior to the bed frame being swung into the inoperative position wherein it is contained within the boot, and means for supporting the main and foot portions in aligned relation exteriorly of the boot when in the operative position.

2. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a bed frame comprising a main portion including a head portion, a foot portion hinged to the main portion and folded over thereonto prior to the bed frame being swung into the inoperative position wherein it is contained within the boot, and means for hinging the main portion to the boot, said main portion being swung out in the operative position about its hinges and the foot portion swung downwardly about its hinges into aligned relation to the main portion.

3. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame hinged in the boot and adapted to be swingable on its hinges into an operative position exteriorly of the boot, a hinged tail board on the boot and means for extending the tail board rearwardly for supporting the rear portion of the bed frame upon its being set up for use.

4. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame hinged in the boot and adapted to be swingable on its hinges into an operative position exteriorly of the boot, a hinged tail board on the boot and detachable means for extending the tail board rearwardly for supporting the rear portion of the bed frame upon its being set up for use.

5. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame hinged in the boot and adapted to be swingable on its hinges into an operative position exteriorly of the boot, a hinged tail board on the boot, detachable means for extending the tail board rearwardly for supporting the rear portion of the bed frame upon its being set up for use, and a collapsible foot board on the tail board extending means.

6. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame comprising a forward or main portion hinged at its outer side to the side of the boot and a rear portion hinged to the rear of the main portion and adapted to be turned over thereonto in the inoperative position and aligned therewith in the operative position.

7. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame comprising a forward or main portion hinged at its outer side to the side of the boot and a rear portion hinged to the rear of the main portion and adapted to be turned over thereonto in the inoperative position and aligned therewith in the operative position, and means for supporting the bed frame in the operative position.

8. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, and a bed frame comprising a forward or main portion hinged at its outer side to the side of the boot and a rear portion hinged to the rear of the main portion and adapted to be turned over thereonto in the inoperative position and aligned therewith in the operative position, means for supporting the bed frame in the operative position, and subsidiary adjustable means extending to the ground from the free sides of the bed frame.

9. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a pair of bed frames opposedly

hinged to the sides of the boot and swingable outwardly into an operative position exteriorly of the boot, collapsible struts secured to the outer corners of the bed frame, a detachable ridge-pole secured above the boot, and a tent cover extending over the ridge-pole and corner struts, a boot lid hinged at its forward end and normally covering the boot, means for supporting it in a vertical position, and means on the lid for supporting the forward end of the ridge-pole.

10. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a pair of bed frames opposedly hinged to the sides of the boot and swingable outwardly into an operative position exteriorly of the boot, collapsible struts secured to the outer corners of the bed frame, a detachable ridge-pole secured above the boot, and a tent cover extending over the ridge-pole and corner struts, a boot lid hinged at its forward end and normally covering the boot, means for supporting it in a vertical position, means on the lid for supporting the forward end of the ridge-pole, and bracing means between the boot lid and the bed frames, and between the bed frames and boot for holding such bed frames rigid in the extended position.

11. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a tail board hinged to the boot, means for supporting the tail board in alignment with the bottom of the boot, a detachable extension applied to the tail board, and a collapsible step mounted on the extension.

12. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a tail board hinged to the boot, means for supporting the tail board in alignment with the bottom of the boot, a detachable extension, forwardly extending longitudinal members secured to the extension, socket members in the boot adapted to receive and hold the longitudinal members in position, step supporting members hinged to the longitudinal members, and a step hinged to the step supporting members.

13. The combination with a motor vehicle chassis, of a boot suitably disposed on the chassis, a tail board hinged to the boot, means for supporting the tail board in alignment with the bottom of the boot, a detachable extension, forwardly extending longitudinal members secured to the extension, socket members in the boot adapted to receive and hold the longitudinal members in position, step supporting members hinged to the longitudinal members, a step hinged to the step supporting members, and coacting means between the step and step supporting members for supporting the former in the horizontal position.

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