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PORTABLE CAMPING OUTFIT

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2 Sheets-Sheet 2

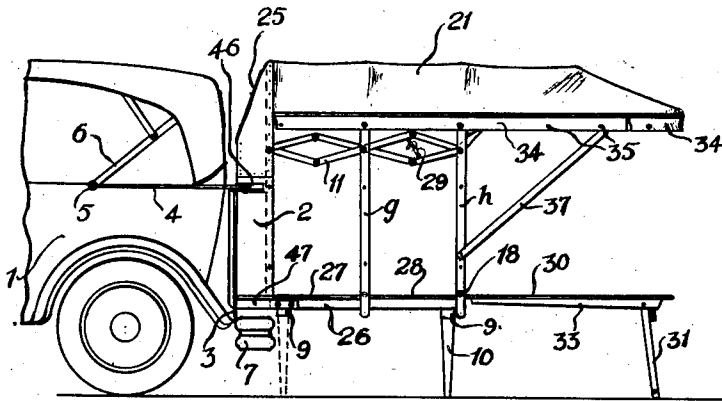


Fig. 5.

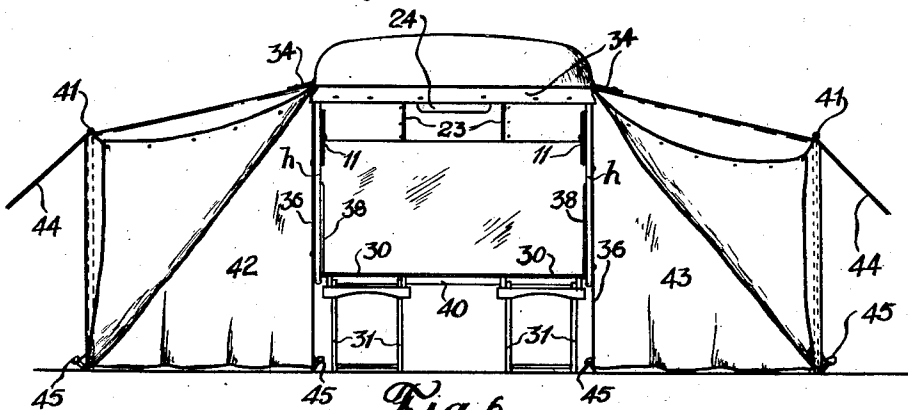


Fig. 6.

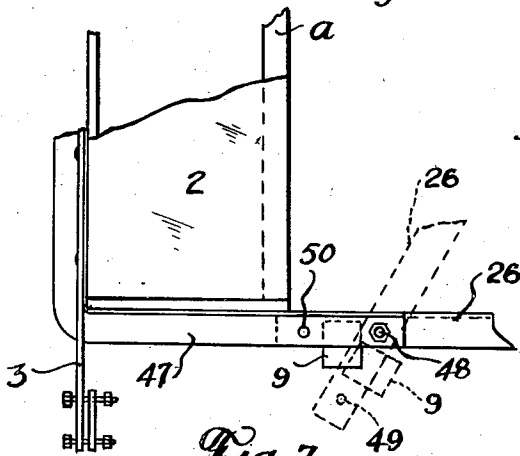


Fig. 7.

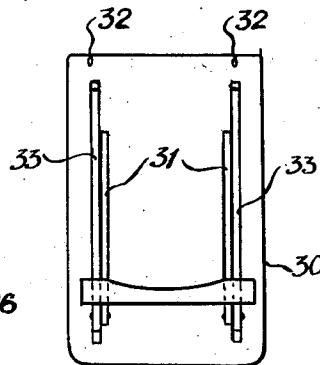


Fig. 8.

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PORTABLE CAMPING OUTFIT

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5 Claims. (Cl. 135—4)

This invention relates to an improved collapsible and portable camping outfit providing covered-in sleeping accommodation which is particularly adapted to be attached to the rear of a passenger motor vehicle, although it is not restricted to this particular use.

According to a preferred construction of the invention, the improved outfit comprises a vertically disposed head portion of box-like form adapted to be secured to the rear of a motor vehicle by being attached to the luggage carrier or in any other suitable manner. The said box-like head portion comprises two narrow vertical sides and a back with the rearwardly facing side completely open.

Hingeably secured to the bottom of the head portion, is a rectangular frame which may have extensible longitudinal members and which is provided with sockets at each of the four corners for the insertion or attachment of removable supporting legs. During travelling the said frame if extensible is telescoped and hinged upwardly so that the longitudinal members are vertical. When in use the frame extends rearwardly from the back of the vehicle, its extreme end being supported on the two rear legs. Normally the front end of the frame will be supported by the rear of the car. If, however, it is desired to detach the outfit, the two front legs may be inserted which makes it self-supporting.

To provide a supporting framework for the tent canopy and sides, a plurality of bows or hoop-sticks are connected together by an extensible system of levers on either side. A convenient system for this purpose is that operating on the "lazy tongs" principle. In employing this means for positioning the several hoop-sticks in spaced relationship with one another, the vertical legs of each hoop-stick are attached to the centre pivot pins of the levers forming each set. The first hoop-stick will be permanently attached in a vertical position to the vertical sides of the head portion. The remainder will then be free to be extended concertina fashion in a rearward direction until the end hoop-stick coincides with the rear end of the frame while the remainder will be more or less equally spaced from it.

A further novel feature of the invention resides in the provision of a foldable floor or covering for the frame which is attached to the bows or hoop-sticks, in such a manner that extension of these members, as above described, causes the simultaneous opening out of the floor over the said frame to form a flat surface for supporting a mattress or the like. In like manner the floor

covering is folded together when the movable hoop-sticks are closed inwardly concertina-fashion against the fixed hoop-stick attached to the head portion. In addition the floor sections when thus folded together provide the fourth side of the box-like head portion thereby forming a convenient receptacle for carrying the side curtains and other loose parts comprising the outfit.

In a modified form of the invention, the two rearmost hoop-sticks are dispensed with as are also the two rearmost sections forming the covering or floor for the frame. In addition the frame is correspondingly curtailed and is made with shorter rigid longitudinal members. The rear end of this frame is, as before, supported by removable legs fitting into sockets secured to the frame corners. Preferably only three hoop-sticks will be employed necessitating only two hinged floor sections.

To provide the additional length for sleeping purposes, separate extension pieces of suitable length having flush folding legs at their rear ends, will be arranged to be connected to the rear bar of the frame. Preferably this rear bar will be provided with a series of holes with which hooks or the like on the extension pieces will be adapted to engage.

To enable the outfit to accommodate itself to any irregularities of the camping site, means are provided for adjusting the effective length of the legs such as by a series of holes in the sockets and ends of the legs through which locking pins may be passed. In addition the hand portion may be so connected to the rear of the vehicle that a certain amount of adjustment from the vertical is possible.

Means are also provided whereby the frame may be rigidly connected to the head portion such as by the provision of holes in the longitudinal members remote from the hinge axis with which pins may be engaged for locking purposes.

To enable the invention to be more readily understood and carried into practice, reference will now be made to the accompanying sheets of drawings illustrating preferred constructions of the invention, and in which like references refer to like parts throughout all views.

In the drawings:—

Fig. 1 is a side elevation of the camping outfit in its travelling position secured to the rear of a motor car.

Fig. 2 is an end elevation taken on Fig. 1.

Fig. 3 is a side elevation showing the camping outfit in a partially open or extended position

but with the canopy or head covering left out for the sake of clarity.

Fig. 4 is a similar view to that shown in Fig. 3 but in which the outfit is in its fully extended position.

Fig. 5 is a side elevation of a modified construction of the invention and shows the canopy or head covering in position when the outfit is fully opened out.

Fig. 6 is an end elevation of the modification shown in Fig. 5, with the addition of side curtains and lean-to shelters on each side.

Fig. 7 is an enlarged detail view of the hinged joint between the frame and the head portion.

Fig. 8 is an under plan view of one of the extension pieces with the legs folded flush therewith.

Referring to the drawings reference 1 denotes the rear portion of a motor car to which the box-like head portion 2 of the camping outfit is secured by struts 3 and stayed by rods 4 fixed to any convenient part of the vehicle such as the hinge pin 5 of the hood bow 6. The struts 3 are preferably clamped to the arms of the rear bumpers 7 although the outfit may be attached to the vehicle in any other convenient fashion.

Hingeably secured adjacent the bottom of the head portion 2 is a rectangular frame 8 which may have extensible side members as shown in Fig. 2. The frame 8 is provided with sockets 9 at each of its four corners for the insertion and attachment of removable supporting legs 10. In the travelling position the frame 8, if extensible, is telescoped and hinged to the upright position shown in Figs. 1 and 2. Normally the front or head end of the frame 8 will be supported by the rear of the car, but if it is desired to detach the outfit, the two front legs (shown dotted) may be inserted in their sockets 9 which makes the whole outfit self-supporting.

To provide a collapsible supporting framework for the tent canopy and side curtains, a plurality of bows or hoop-sticks, a_1, b_1, c_1, d_1 are connected together by an extensible system of levers 11 on either side as clearly illustrated in Figs. 3 and 4. A convenient system for this purpose is that operating on the "lazy tongs" principle. In employing this means for positioning the several hoop-sticks in spaced relationship with one another, the vertical legs of each hoop-stick are hingeably attached to the centre pivot pins 12 of each set. The first hoop-stick a_1 is permanently attached to the vertical sides of the head portion 2, while additional hinged hoop-sticks e_1, f_1 are so arranged that on opening out they form the supporting means for an overhanging portion of the canopy. It will be understood that normally the water-proof material forming the canopy or head covering is permanently attached to the top portions of the several hoop-sticks and is not shown in Figs. 3 and 4 merely for the purpose of enabling the invention to be more clearly understood. To fix the hoop-sticks in their open or extended position detachable fastening means such as cabin hooks 29 will be employed so as rigidly to connect opposing link members as illustrated in Figs. 4 and 5.

The floor covering for the frame 8 comprises a series of sections 13, 14, 15, and 16 preferably of plywood or the like, hinged together so that they fold flat against one another in alternate directions. To enable this frame covering to unfold simultaneously with the rearward extension of the hoop-sticks, the ends of alternate hinged

pins are connected to alternate hoop-sticks b_1 and d_1 , as shown at 17 and 18. The first section 13 will of course be hinged to the bottom board of the head portion 2. Preferably each floor section will in width be equal to the distance between two adjacent hoop-sticks in their fully extended positions.

The floor sections when folded flat one against the other form the fourth side for the box-like head portion 2, and the hinge points 19 of the frame 8 are spaced slightly to the rear of the head portion 2 so that the frame 8 in its vertical travelling position will lie flush against and support the folded floor sections in this position as clearly shown in Figs. 1 and 2. Straps or the like 20 may be employed to lash the whole in the travelling position.

The upper part of the head portion 2 is enclosed by a hood 22 of waterproof material such as canvas having an opening 23 directly opposite the rear window 24 of the car 1, and adapted to be closed by a roll-up curtain 25. This provision ensures that the driver's rear view is not obscured by attachment of the outfit to the rear of the vehicle.

In a modified construction of the invention, two of the five hoop-sticks as shown in Figs. 3 and 4 are dispensed with as are also the two rearmost floor sections 15 and 16. In this construction the canopy 21 is attached to and supported by two intermediate hoop-sticks g and h , and hinged hoop-sticks corresponding to those denoted by references e_1, f_1 in Figs. 3 and 4. In addition a rigid shorter frame 26 is employed which is made long enough to support the two hinged floor sections 27 and 28 while sockets 9 as before provide means for the attachment of the legs 10.

To provide the necessary additional length for sleeping purposes separate detachable extension pieces 30 provided with flush folding legs 31 at their rear ends, are arranged to be connected to the rear bar 40 of the frame 26 by means such as short hooks 32 engageable in suitably spaced holes in said rear bar. The said holes may be arranged so that the extension pieces can be connected to lie adjacent one another so as to form a double bed, or separated laterally so as to form in effect two single beds. A further centrally positioned set of holes may be provided enabling one extension piece to be connected so as to form in effect a table. The legs 31 are hinged to longitudinal bars 33 and are adapted, in known manner, to be folded flush as clearly illustrated in Fig. 8, which provision enables these extension pieces to be stowed away in the box-like head portion 2 during travelling.

The canopy 21 is provided with flaps 34 having fastenings 35 for the attachment of the side curtains 36 so as to enclose the sleeping space in a weather-proof manner. The overhanging portion of the canopy is secured by ties 37 of canvas or the like, detachably securable to the hoop-stick h . The common hinge pin of the floor sections 27 and 28 will preferably be provided with an eye at each end adapted to engage slidably with a guide bar 38 secured to the vertical portions of the hoop-stick g .

Where it is desired to increase the sleeping accommodation, additional sheets of waterproof fabric may be attached to the flaps 34 and supported by tent poles 41 so as to form lean-to shelters 42, 43 on either side of the main chamber as illustrated in Fig. 6. The usual guy ropes 44 and tent pegs 45 will be employed to stay and secure the whole structure.

To enable the outfit to accommodate itself to irregularities of the camping site, means are provided for adjusting the effective length of the supporting legs 10 such as by providing a series of holes in the sockets 9 and top ends of the legs 10 through which locking pins may be passed for adjustment purposes. In addition the head portion 2 may be so connected to the rear of the vehicle, that a certain amount of adjustment on either side of the vertical position is possible. This is conveniently arranged by providing a series of holes in a bracket 46 bolted to the head portion 2 with which the ends of the horizontal stay rods 4 may be selectively connected.

Means are also provided whereby the longitudinal members of the frame 26 can be rigidly connected at right angles to the head portion 2. A practical method of carrying the idea into practice is illustrated in Fig. 7. In this construction angle sectioned members 47 bolted to the head portion 2 extend rearwardly and are provided near their extremities with holes through which pass the hinge pins 48 of the frame 26. The frame 26 is hinged at a point inwardly from its end and additional holes 49 therein coincide with additional holes 50 in members 47 when the frame and said members register in line with one another, and a pin or bolt passed through said coinciding holes will secure the frame 26 rigidly to the head portion 2.

A dust cover 51 will preferably be used to enclose the top portions of the hoop-sticks when the outfit is lashed in its travelling position as shown in Figs. 1 and 2.

What I claim is:—

1. An improved collapsible and portable camping outfit providing covered-in sleeping accommodation and adapted to be attached to the rear of a motor vehicle, comprising a vertically disposed head portion of box-like form having means for attaching it to the vehicle, a rectangular frame composed of one or more sections, one of which is hingeably secured adjacent the bottom of said head portion provided with means at each of its four corners for the removable and adjustable attachment of supporting legs, a plurality of hoop-sticks for supporting a canopy and side curtains and connected together by means of an extensible system of levers, said sticks adapted to be extended concertina fashion from the head portion over said frame when

the frame is swung from a vertical travelling position to a horizontal position and supported by said legs, and a foldable floor attached to said hoop-sticks whereby extension of said sticks causes the simultaneous unfolding of the floor over the frame to form a flat surface for supporting a mattress or the like.

2. An improved collapsible and portable camping outfit as claimed in claim 1 wherein the foldable floor for the frame comprises a plurality of rectangular sections of suitable material hinged together by means of hinges so as to fold flat against one another in alternate directions, the ends of alternate hinges of which are hingeably connected to alternate hook-sticks adjacent their ends.

3. An improved collapsible and portable camping outfit as claimed in claim 1 wherein the first hoop-stick is permanently fixed to the head portion and the remainder of the hoop-sticks in the travelling position are adapted to be collapsed against and lashed to the fixed hoop-stick, and wherein the foldable floor comprising a plurality of rectangular sections hinged together so as to fold flat against one another in alternate directions in their folded travelling position, forms the fourth side for the box-like head portion and are securely held in this position by the hinged frame section when it is swung to and secured in its vertical travelling position.

4. An improved collapsible and portable camping outfit as claimed in claim 1, wherein a shorter frame than is necessary to provide full length sleeping accommodation is employed composed of a single rigid section, and detachable extension pieces, having flush folding legs, said extension pieces being attachable to the rear end of said frame to provide the necessary extra length, and wherein hinged hoop-sticks extending from the last vertical hook-stick, provide roof or head covering over said extension pieces.

5. An improved collapsible and portable camping outfit as claimed in claim 1, wherein the extensible system of levers employed is that operating on the "lazy tongs" principle and wherein means for locking the system in the extended position consists of detachable fastening means such as cabin hooks employed to rigidly connect opposing lever members.

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