



## CAMPING TRAILER

*Compact when on the road, it is transformed by the turn of a handle into a roomy cabin that sleeps six.*

By Don Armstrong

**A**FTER a summer vacation spent camping in the bush with a tent, my family and I were convinced there was no better way to enjoy a holiday together. We decided to go one step further in camping and avail ourselves of the benefits of a trailer. I wanted one that would be compact but at the same time have a solid roof. The one I have designed has proved itself very successful after 4,000 miles of travel. It is easy to set up, sleeps four to six people and tracks very well behind the car. The cost of building it was about \$300.

To set about making the trailer you must get hold of an axle. Mine was from

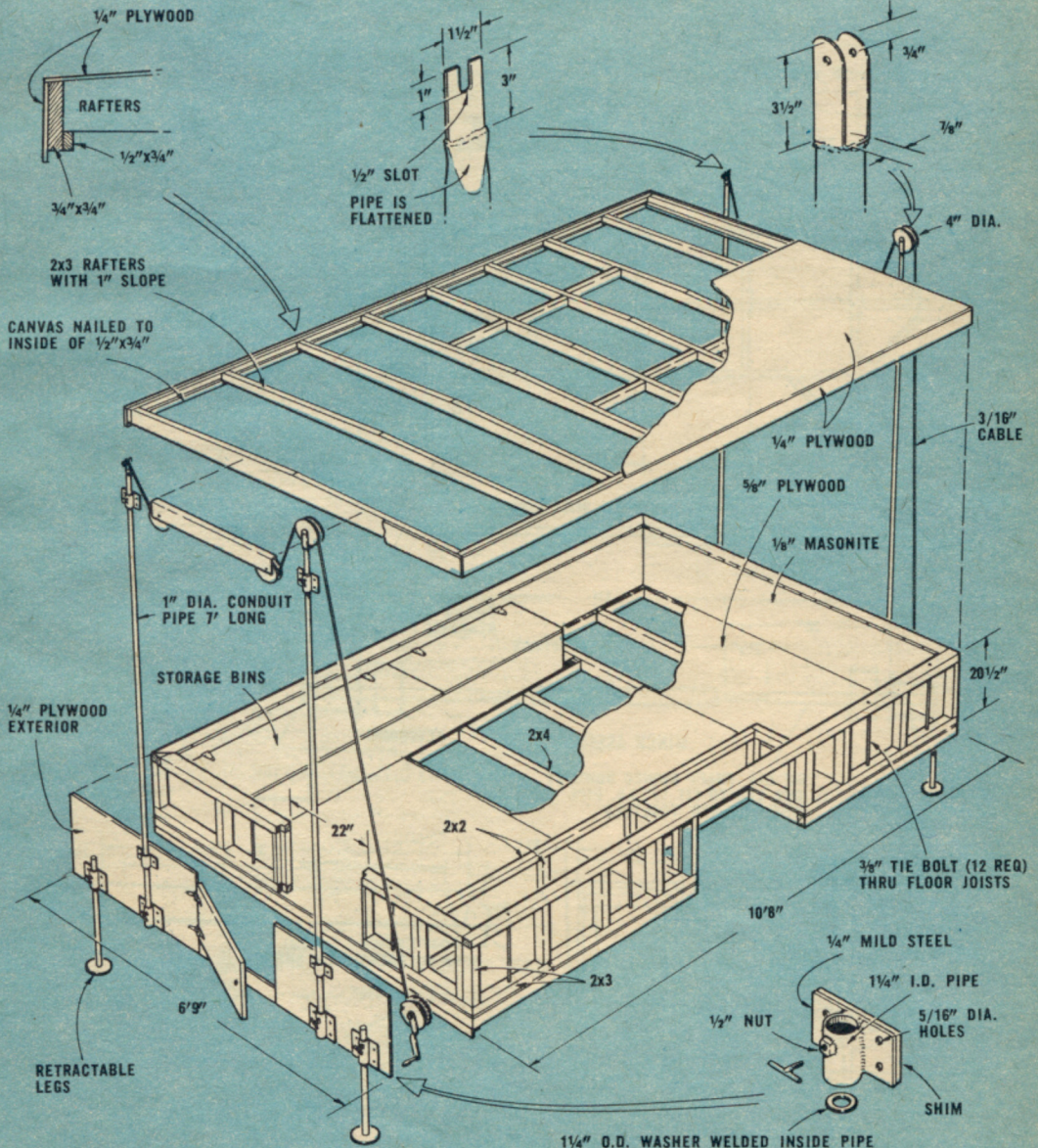
the front of a 1937 Chevrolet. I had it cut in the center and an extra seven inches added to give more floor space in the trailer. To cut the angle iron pieces for the chassis it is a good idea to draw out a full scale plan on the floor. This simplifies cutting the pieces to fit before welding. After welding the frame and the draw bar, the spring hangers should be positioned and welded in place. The axle and spring assembly are then bolted on and work can begin on the floor.

Cut the 2x4 joists to length, place them on edge, 16-inches on center, and bolt them to the frame. Nail the side

stringers to the ends of the floor joists. To make the floor as solid as possible metal rods are bolted through the side stringers to the angle frame, four on each side. The plywood floor sheets may then be laid crosswise and nailed with two-inch spiral nails, one nail every eight inches.

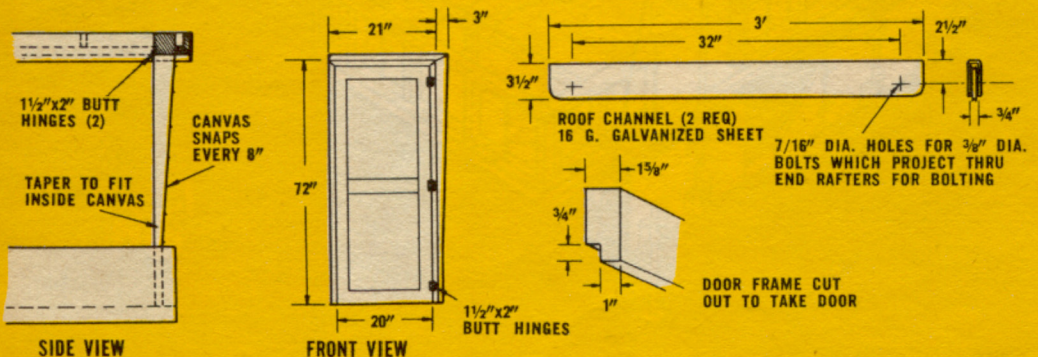
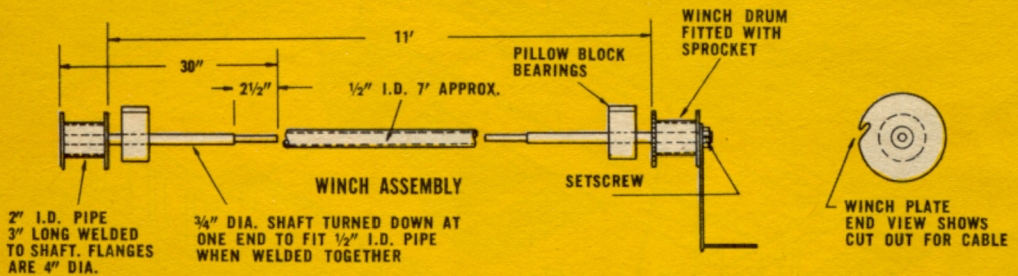
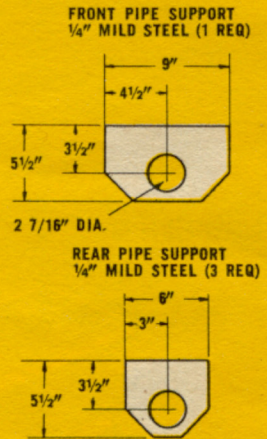
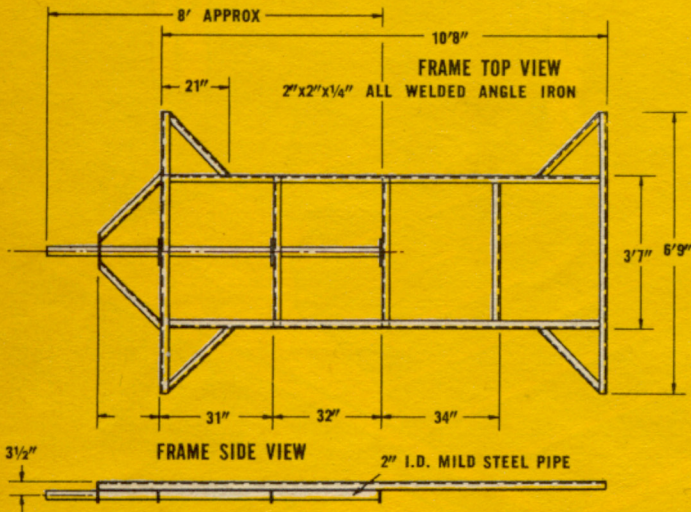
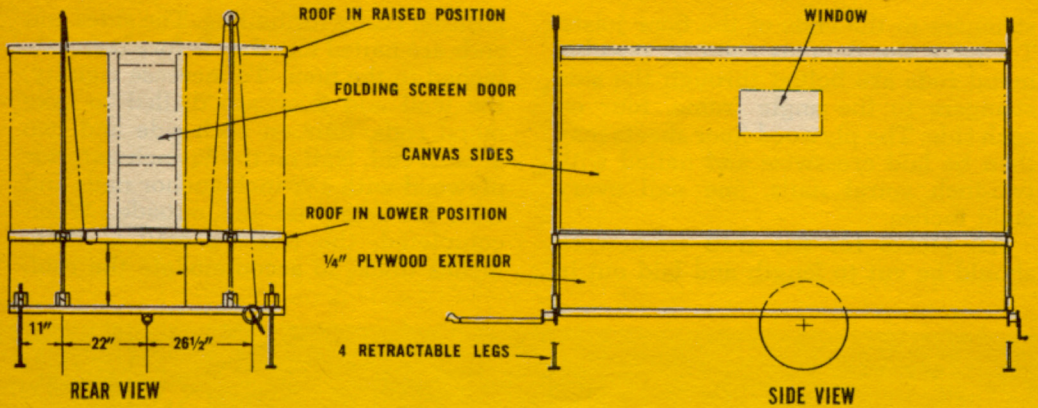
All pieces for the wall framework should be cut to length and laid out in

position ready for nailing. The sides and ends are nailed together before being attached to the floor. To increase rigidity, the wall and floor are drilled to take metal rods, four on each side and two at each end. Nail on the 1/4-inch exterior plywood with 1 1/4-inch anchor nails and trim all edges on the outside. When completed, the trailer's wall is three inches thick, to accommodate the roof,

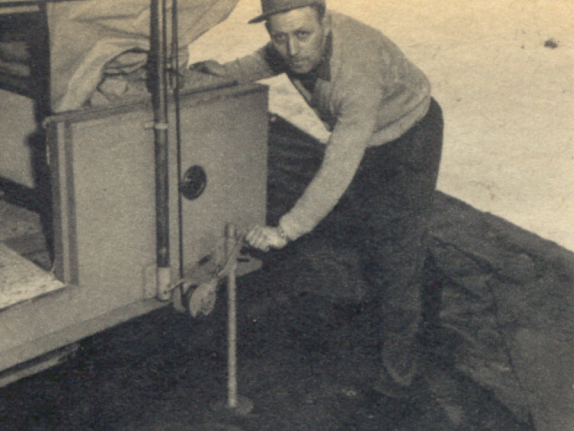


NOTE: FLOOR BEAMS ARE BOLTED TO FRAME WITH 3/8" x 4 1/2" CARRIAGE BOLTS

### CAMPING TRAILER CONSTRUCTION DETAILS



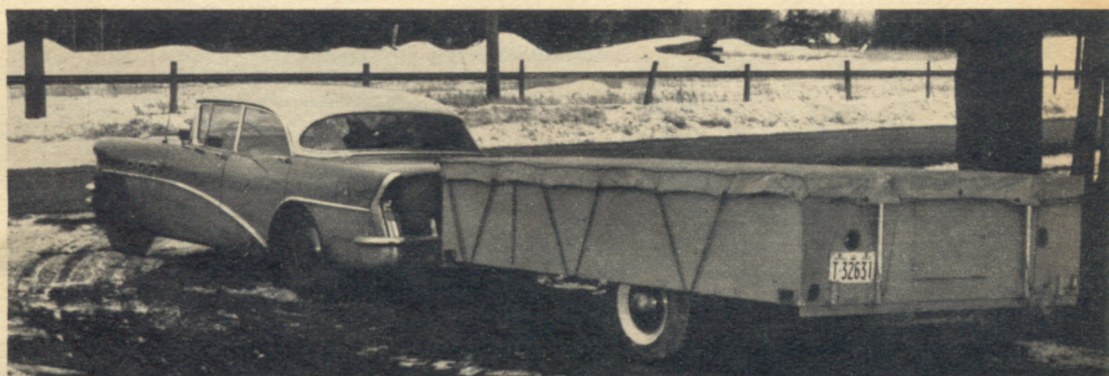
### CAMPING TRAILER CONSTRUCTION DETAILS



ONE operation, the turning of the winch, raises roof and unfolds walls of canvas.



DOUBLE-DECKER bunk across front of trailer sleeps two at each level, is four feet wide.



WITH everything snugly stowed for the road, trailer's low silhouette makes towing easy.

the folds in the canvas and the molding which holds the canvas to the inside of the box.

Next the storage-bin framework and wheel wells are constructed from 2x2's. The inside of the trailer box is then lined with  $\frac{1}{8}$ -inch Masonite. To weather-proof the top surface of the box's sides it is covered with galvanized iron soldered at all joints and bent to extend  $\frac{1}{2}$ -inch down the inside and outside edges where it is nailed.

The rafters are cut with a one-inch slope from the center to each end. I made sure that there was  $\frac{1}{4}$ -inch clearance between the roof and the sides and ends of the box after cutting all the rafters. They are placed on top of the box, 16 inches on center, with a 1x3 $\frac{1}{4}$ -inch board nailed to the ends of the rafters on both sides. To provide for fastening the canvas to the roof, strips are

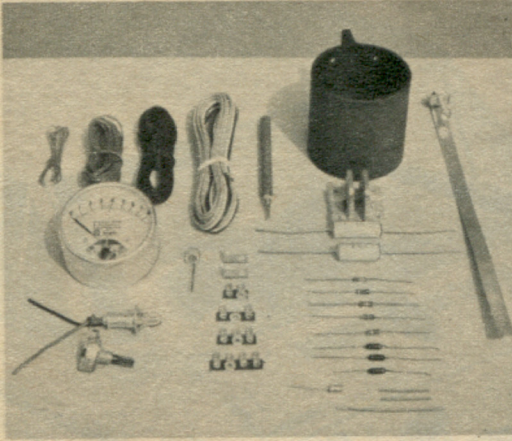
nailed to the sides under the rafters. Strips of plywood can then be cut for the roof's edge.

The plywood sheets for the roof should be cut slightly oversize to be planed down after nailing and gluing in place. Apply exterior-type glue all around the edges of the roof and with special care where the seams join. Sand all edges and fill in cracks ready for painting.

The winches which raise and lower the roof have drums of two-inch pipe with a four-inch-diameter plate welded to each end. Each inside plate has a ratchet for locking. The winch assembly is mounted under the frame with two pillow bearings. Next, the pipe brackets and guides made from  $\frac{1}{4}$ -inch plate and 1 $\frac{1}{4}$ -inch pipe welded together are drilled and welded to the box and to the roof. Stainless [Continued on page 125]

## Make This Tachometer

[Continued from page 119]



ALL THE PARTS of the tachometer kit. You can assemble the job in an evening's work.

as rpm's. The tachometer may be connected to a positive or negative grounded ignition system of 6, 12 and 24 volts or to a negative grounded magneto ignition systems. This tachometer is made in kit form by Allied Radio Corp., 100 North Western Ave., Chicago 18, Ill. When ordering, specify whether for a positive or negative grounded system. If used with a 6-volt or magneto system an auxiliary 9- or 12-volt battery is needed. A small battery of the type used in transistor radios will provide sufficient current to operate the tachometer for several months. Allied supplies a four-ounce 12-volt battery at \$1.50 for this purpose.

The instructions are easy to follow. Even the newcomer to this kind of work should have no trouble with the assembly. The first stage of construction is the assembly of the individual parts. This is followed by three separate wirings. The calibration probe, which is used to adjust the tachometer according to the number of cylinders, is then assembled and connected. After the calibration adjustment is carried out the completed instrument is finally mounted on the dashboard or steering column and connected as shown in the diagram. Driving the car with the tachometer installed you will find it gives new insight into the relationship between speed and power.—R. J. Capotosto

## Camping Trailer

[Continued from page 105]

pipe was used so it would not rust. The brackets are shimmed in order to keep the roof from binding when it is raised or lowered. The pulleys are then bolted to the roof, right through the rafters at each end. To support the roof four 7-foot lengths of one-inch conduit pipe are used. Two of the pipes have a pulley mounted at the top and the other two have a slot to take the end of the cable. Both pieces of the  $\frac{3}{16}$ -inch cable must be cut exactly the same length, approximately 22 feet. A brass button soldered at each end of the cable prevents it from slipping out of the winch or the pipe slot. Four 2-foot pieces of conduit are used for the leveling jacks. These pieces also serve to hold the roof down when traveling. They are inserted upside down into the roof-support bracket and locked in place by the wing nuts. A small door at the rear of the trailer box allows easy access for packing when the roof is down. After wiring for running lights and painting the outside of the trailer, work can begin on the interior.

The project took me approximately one month during my spare time to make and another month for the fitting of the canvas by the local tent company. •

### LIST OF MATERIALS

Items are listed in order used in construction. Amounts may vary according to width of axle.

- 1 axle with wheels and springs
- 1 trailer hitch
- 8 ft. 2-inch pipe (drawbar)
- 50 ft.  $\frac{1}{4}$ x2x2-inch angle iron (chassis)
- 3 2x4 pieces 8 ft. long (floor)
- 5 2x4 pieces 14 ft. long (floor)
- 18  $\frac{3}{8}$ x $\frac{1}{2}$ -inch carriage bolts (floor)
- 3 4x8 sheets of  $\frac{3}{8}$ -inch plywood (floor)
- 8 2x3 pieces 14 ft. long (sides)
- 3 2x2 pieces 14 ft. long (sides)
- 12  $\frac{3}{8}$ x22-inch rods, ends threaded (sides)
- 2 4x8 sheets  $\frac{1}{8}$ -inch Masonite (sides)
- 32 ft. of 26-gauge galvanized iron, 4 $\frac{1}{2}$  inches wide (sides)
- 6 4x8 sheets  $\frac{1}{4}$ -inch plywood (sides, roof)
- 9 2x3 pieces 7 ft. long of seasoned spruce, pine or fir (rafters)
- 1 1x10 piece 11 ft. long (roof)
- 4 7-ft. lengths 1-inch pipe (roof supports)
- 2 22-ft. lengths  $\frac{1}{4}$ -inch cable
- 6 4-inch pulleys
- 2 winches

canvas, nails, nuts and bolts, material for doors.