

CONESTOGA

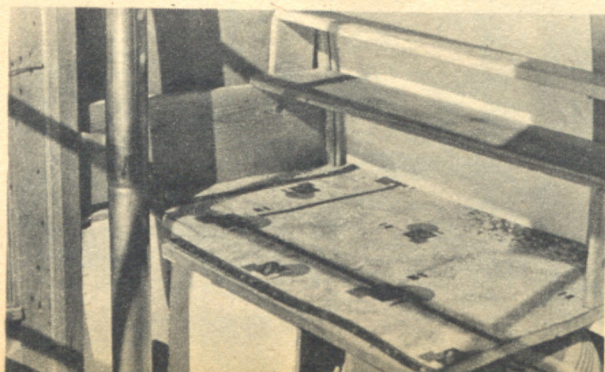
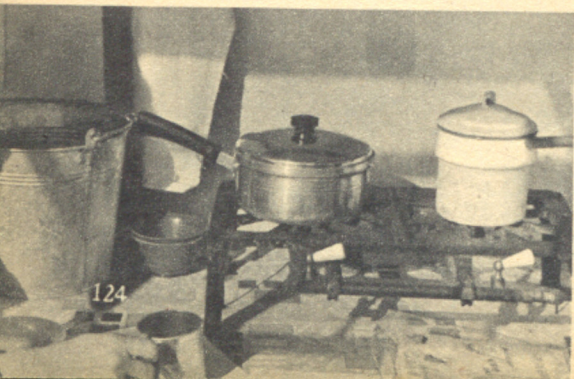
a modern prairie schooner

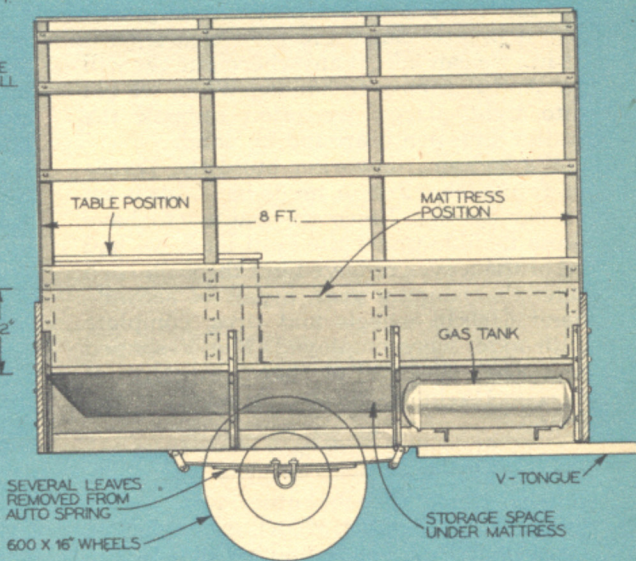
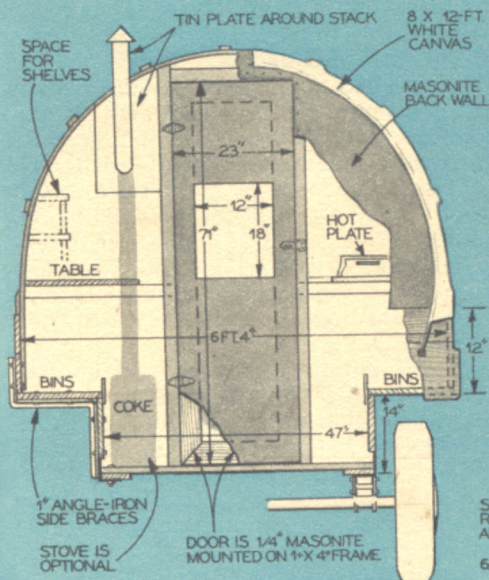
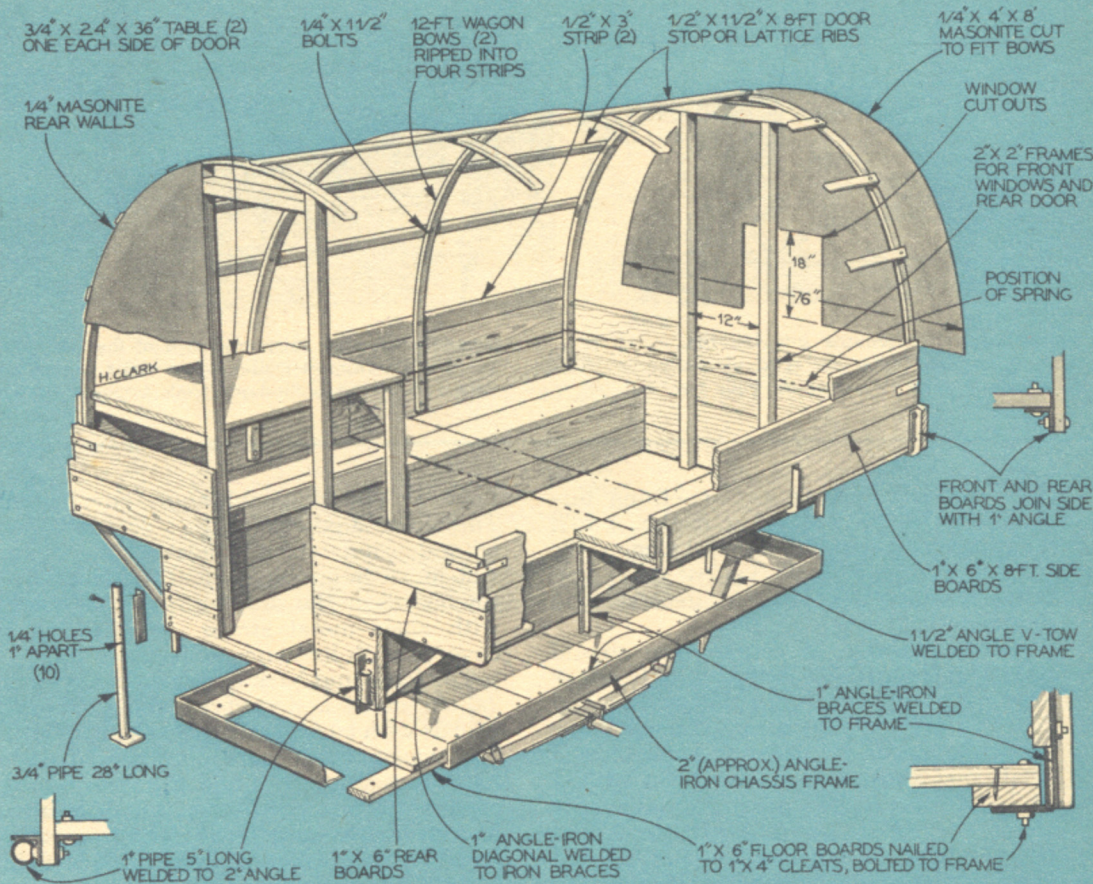
Feeling foot-loose and fancy-free? Then build this \$150 trailer and spend your vacation roaming at will.

By Elsie D. and Vaughn Hunt

In cooking area, bucket holds spring water and fresh tea towels tuck between canvas and bows, which make a perfect "clamp" for holding them.

Dresser on opposite side has shelves above and storage bin below. Heating stove and stack are backed by asbestos to protect surrounding wood.

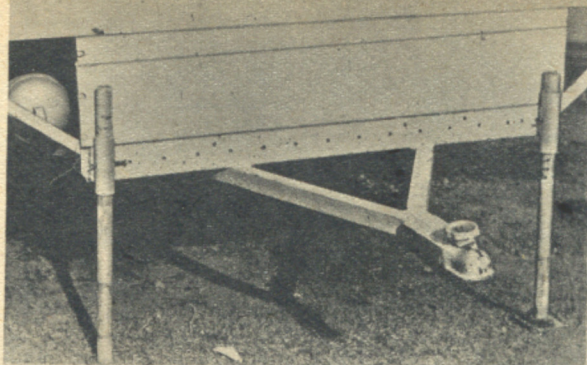




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Completed trailer weighs but 450 lbs., so it is easy to handle. Since the road clearance is 18 in., you can take it anywhere your car will go.



Close-up showing hitch and two of the four pipe stands that support trailer when stops are made. One end of the bottled-gas tank appears at left.

IF YOU'RE looking for something different in the way of a trailer, you'll want to hear about our covered wagon. We built it for only \$150. Let us take you through the series of steps necessary to duplicate it.

Before starting, of course, you should have some knowledge of the use of hammer and saw. You may build the project any size that strikes your fancy. To meet our particular needs for vacation trips, ours is small. Set crosswise at the front of the trailer are a double-bed spring and mattress. There's storage space beneath the bed for luggage and camp chairs. At the back of the trailer, on both sides of the door, dressers with shelves above provide space for all our cooking equipment, utensils, and supplies.

The completed trailer weighs exactly 450 lbs. It trails up steep mountain grades like a breeze. Since the road clearance is 18 in., we can take it anywhere our car will go. And it is easy to handle. When we get into tight places, we often unhook the trailer and turn it around by hand.

We had an ironworker build the 47x96-in. frame from 2x2-in. angle bar. This is set on car springs. Since we wanted to have these flexible under the light load, we had all of the leaves removed but three on each side. For running gear, a pair of second-hand 6.00x16 wheels and tires, complete with axle, were employed. The V-shaped tow bar consists of two lengths of $\frac{1}{4}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ -in. angle bar welded to the frame.

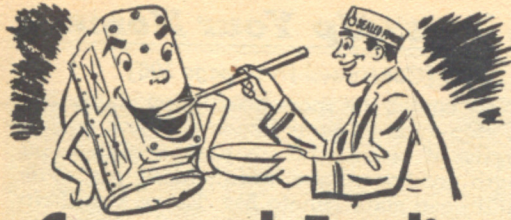
Cement-coated nails and stove bolts secure the 1x6-in. floor boards and their 1x4-in. cleats to each other and to the frame. Eight lengths of 1x1-in. angle bar were bent to Z shape and welded to the frame by our ironworker friend. These

have 1x1-in. diagonal angle-bar braces. They form supports for the sides, ends, and wing flooring, which consist of 1x4-in. and 1x6-in. stock and are bolted in place. The top boards on the sides and ends are joined with sheet-metal straps. All flooring is covered with linoleum to keep out dust.

The front and back ends are framed with 2x2-in. stock and covered above the end boards with curved-top pieces of Masonite. The wagon bows were purchased from a hardware store. We had a carpenter rip each in half on a power saw, which resulted in four lightweight bows. These are fastened to the trailer sides with $\frac{1}{4}$ x $1\frac{1}{2}$ -in. bolts. The frame headers are secured to the uprights with 20d nails and the Masonite is nailed to the framing and the bows. Openings are cut in the Masonite for a window and a door. Wire screening is tacked over the outside of the window opening and trimmed with screen molding. Window glass is set between the framing uprights and held in place with window stop. The glass fits loosely enough to enable us to raise and lower it from inside. The door is constructed by building a 1x4-in. frame and covering it with Masonite. The window in this door is similar to the one in the front of the trailer. Both windows are set at the same height so the driver can see right through the trailer to watch traffic behind him.

At this point, the spring and mattress were set in place. This is important because they won't fit through the door, but must be installed before canvas top is put on.

Wooden strips, $\frac{1}{2}$ x3 in., are set on top of the side boards and bolted to the bows. Seven $\frac{1}{2}$ x $1\frac{1}{2}$ -in. longitudinal battens are then spaced evenly and bolted to the bows. The canvas cover is stretched over this framework and [Continued on page 160]



Care and Feeding of Engines

BY S. P. CORP

SPARK PLUG STORY

When your engine misbehaves, look to your spark plugs for evidence. Here are some clues you may find on the porcelain and the electrodes:

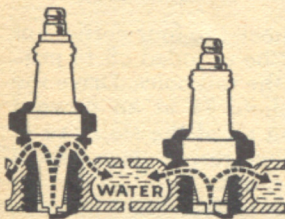
Brown powdery deposit is normal with regular fuels.

White or yellow powdery deposit is normal when using leaded fuels.

Black-wet deposit indicates an excessive amount of oil is getting above the piston or plug is too cold.

Black-fluffy deposit indicates carburetor needs adjusting; mixture is too rich or plug is too cold.

White blistered condition indicates too-lean mixture, faulty timing, leaky valves, or too-hot plug.



A B
HOT AND COLD PLUGS

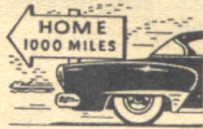
The design of a spark plug determines whether it is hot or cold. "A" is a hot plug because heat is farther from water. "B" is a cold plug, dissipating heat faster because closer to water.

If engine operates under conditions which maintain high engine temperatures, a cold plug should be used. If normal engine temperatures are low, a hot

plug is called for. Always use a spark plug with the heat range recommended by engine manufacturer.

VACATION PREPARATIONS

Before starting your trip, check: **Brakes**, hydraulic system, brake linings, hand-brake cable; **Battery**, test specific gravity; clean, tighten, and coat terminals with petroleum jelly; **Cooling System**, drain, flush, add rust-inhibitor; check hose, pump, and fan belt; **Crankcase**, change oil, replace filter; **Cylinder Head**, tighten bolts to correct torque; **Fuel System**, clean fuel pump bowl, adjust pump and carburetor; **Generator** and voltage regulator; **Lubricate** wheel bearing, universal joints (every 10,000 miles); **Steering**, rotate tires, check alignment; **Starter**, check amperage draw, inspect brushes.



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Conestoga

[Continued from page 126]

secured to the sides and ends with 4d nails that are driven through short lengths of screen molding. The cover is treated with canvas preservative, which goes on just like paint and dries quickly.

The dresser tops and shelves are made from 1x12-in. boards and are supported by scrap-wood frames. You can be as original as you like when building these. Our dressers are 31 in. high and have 24x36-in. tops. We covered all work surfaces with linoleum remnants fastened down with upholstery tacks. The in-board edges of the wing flooring under the dresser tops have 1/2x3-in. lips nailed to them. When working or eating at the dressers, the bed serves as a seat and a camp stool can be set up near the door.

Pipe stands support the trailer when stops are made. A welded assembly consisting of a 5-in. length of 1-in. pipe and a 9-in. length of 2x2-in. angle bar is bolted to each corner of the trailer. Through each pipe is slipped a 28-in. length of 3/4-in. pipe that has a 3x3-in. pad welded to the bottom. One hole through each corner assembly and ten holes through each 3/4-in. pipe take 1/4-in. bolts and allow the stands to be adjusted to suit uneven ground. •

BILL OF MATERIALS

(Approximate Quantities Required)

Quantity	Material
2	half-elliptic leaf springs
2	6.00x16 wheels with tires and axle
27 ft.	1/4"x2"x2" angle bar
8 ft.	1/4"x1 1/2"x1 1/2" angle bar
42 ft.	3/16"x1"x1" angle bar
4 pieces	1/4"x3"x3" flat bar
4 ft.	16-ga. metal strip, 1" wide
20 in.	1" pipe
10 ft.	3/4" pipe
32 lineal ft.	2"x2" dimension stock
24 lineal ft.	1"x12" boards
188 lineal ft.	1"x6" boards
48 lineal ft.	1"x4" boards
22 lineal ft.	1/2"x3" wooden strips
56 lineal ft.	1/2"x1 1/2" door stop
8 lineal ft.	window stop
24 lineal ft.	screen molding
3 sheets	1/4"x4'-0"x8'-0" Masonite
2	12-ft. wagon bows
8	20d common nails
2 1/2 lb.	6d box nails
1/2 lb.	6d cement-coated box nails
1 box	common tacks
1 box	upholstery tacks
16 dozen	1/4"x2 1/2" stove bolts with nuts
6 dozen	1/4"x1 1/2" stove bolts with nuts
2	door hinges
1	hasp-and-staple set with padlock
1	screen-door lock
2 pieces	wire screening, 14"x20"
2 pieces	window glass, 12"x18"
1 piece	white canvas, 8'-0"x12'-0"
1	spring, double-bed size
1	mattress, double-bed size
1 pint	canvas preservative
	Linoleum remnants and linoleum paste
	Paint