

## **Lil Guy Trailer**

From Mechanix Illustrated, March 1951

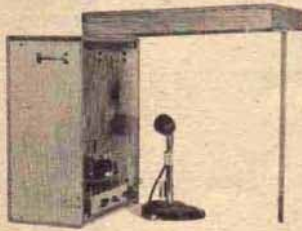
For Reference Only... Do not use to build a trailer.

Check on Teardrop and Tiny Travel Trailers for up to date building information;

<http://www.mikenchell.com/forums>

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## ***Crafts and Hobbies***



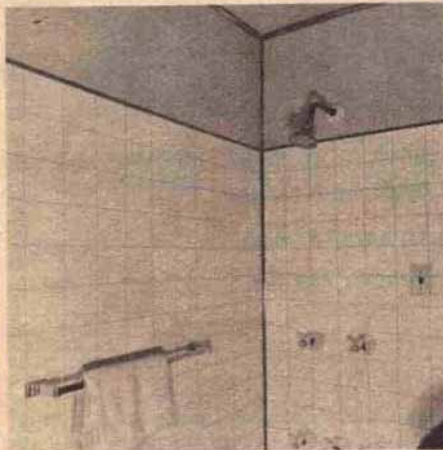
### **Sound Off . . .**

. . . with this 20-watt amplifier that operates through mikes, radio, or your record player. See page 146 for the details.



### **Introducing Li'l Guy . . .**

. . . an 8-ft. trailer that's plenty rugged and rarin' to go! Turn the page for full plans and information.

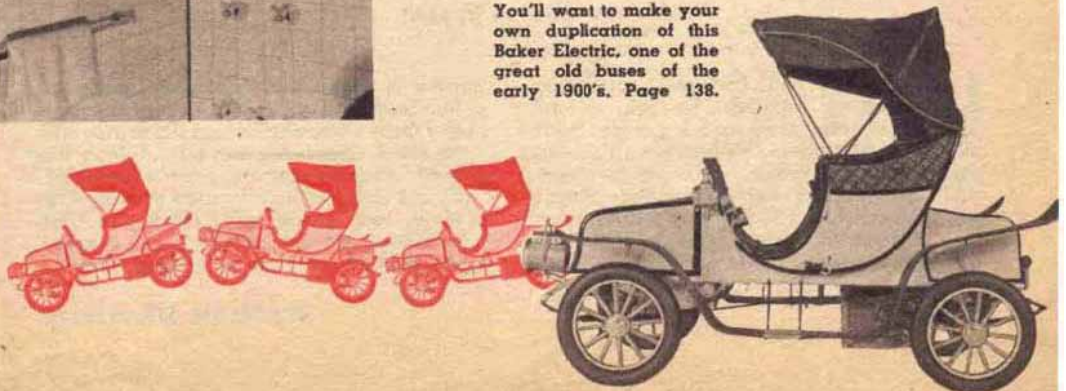


### **Walls Wailing?**

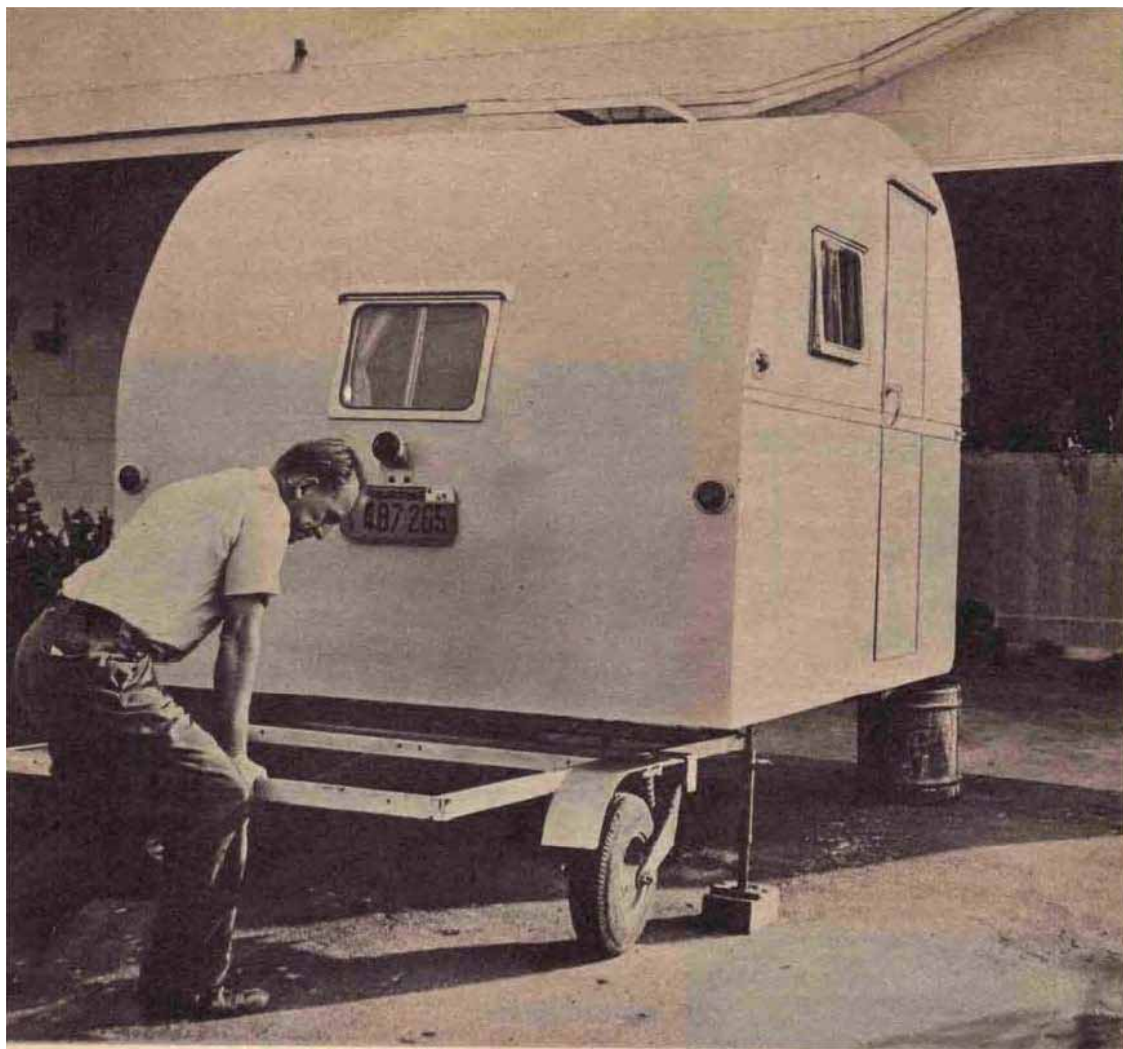
Then apply attractive tile-board, which comes in many colors and styles. The article beginning on page 120 shows you how.

### **Project For Modelers**

You'll want to make your own duplication of this Baker Electric, one of the great old buses of the early 1900's. Page 138.







## Build LI'L GUY

**Hit the road this summer with Li'l Guy, an 8-ft. house trailer with everything—including a kitchen sink! Weight: 780 lbs.**

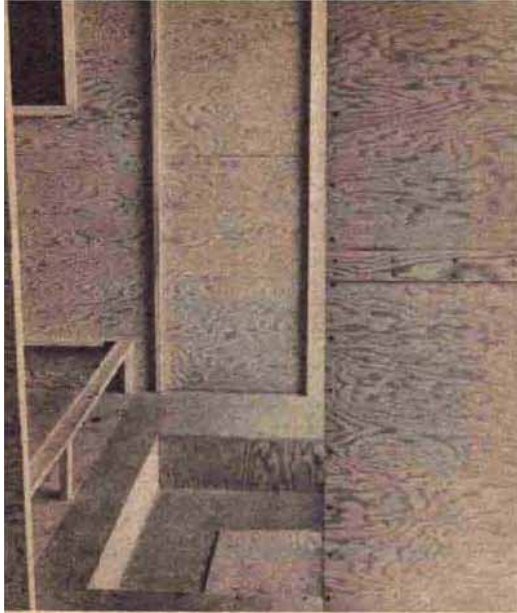
**By Clinton R. Hull**

**L**I'L Guy was made because I could find no factory job light enough, or one that would enter the average garage. Built with tools that are in any handyman's shop, this trailer can really take a lot of wear. After 7,000 miles and exposure to desert sun and coastal rain Li'l Guy's Fiberglass-plastic finish and plywood body show absolutely no signs of deterioration. Every

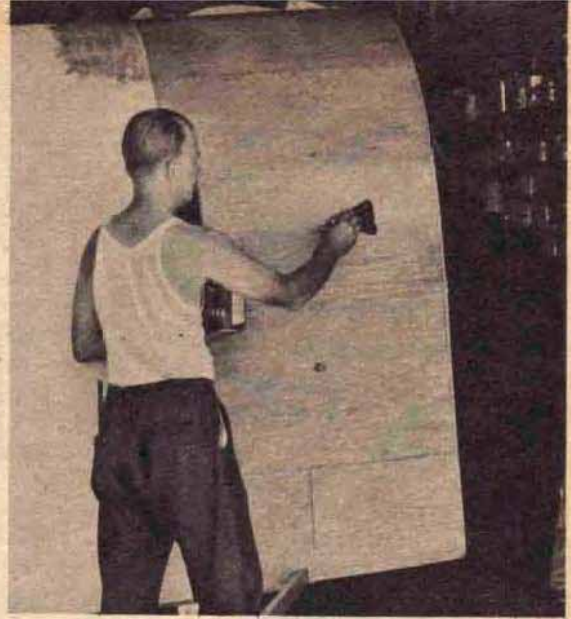
joint is fastened with Weldwood glue and galvanized screws or bolts, except the cupboard frame, where glue and finishing nails were used. Clearance and pilot holes were drilled for every screw to prevent splitting.

Ample sleeping quarters are provided by a 46-in. box spring, with extra pad. The base lifts easily for access to the storage space beneath. A pair of folding "beach-





Bed frame runs width of trailer. The wardrobe will occupy part of the space along far wall.



After applying coat of plastic to half of the top, lay on Fiberglass cloth. Pull out all the wrinkles.

back" rests convert the bed into a divan when necessary. Our on-the-road table is a pair of large trays, which I found more practical than the originally planned drop-leaf table hinged to the wardrobe door. Divided plastic plates, egg and food containers, aluminum utensils, card table, folding camp stools and beach chairs comprise our furniture.

Actually the interior arrangement is one of personal preference. The bed can be replaced by bed-dinette seats and drop table. Two 27 or 30-in. bunks work well if an L-shaped sink-cupboard is built in the center at one side, the wardrobe relocated and the ice box replaced by a portable.

Li'l Guy requires a box-type trailer frame. A standard boat trailer does the trick. The floor is dropped six inches to afford 6 ft. 1 in. headroom with an over-all height of 7 ft. 1 in. The dropped floor should clear the road by ten inches.

Begin with the floor. Cut two 6 ft. 4 in. pieces from the sheets of  $\frac{1}{2}$ -in. plywood, and cut  $1\frac{1}{2}$  in. from the side of one. Place side by side and attach them with the 1x2-in. side frames and  $1\frac{1}{2}$ -in. No. 8 screws spaced about 8 in. apart. Bevel and fasten the end frames. Be sure to pre-bore all screw holes.

Set the floor in place and with a pencil outline the trailer frame and locate the six holes for fastening the floor to the trailer. For proper balance the wheel axles should be approximately 33 to 36 in. from the back

end of the house body. If your trailer frame is too long, shorten it to fit. Turn the floor over and glue a 2-in. batten under the floor joint. Note that this piece rests between the cross members of the trailer frame.

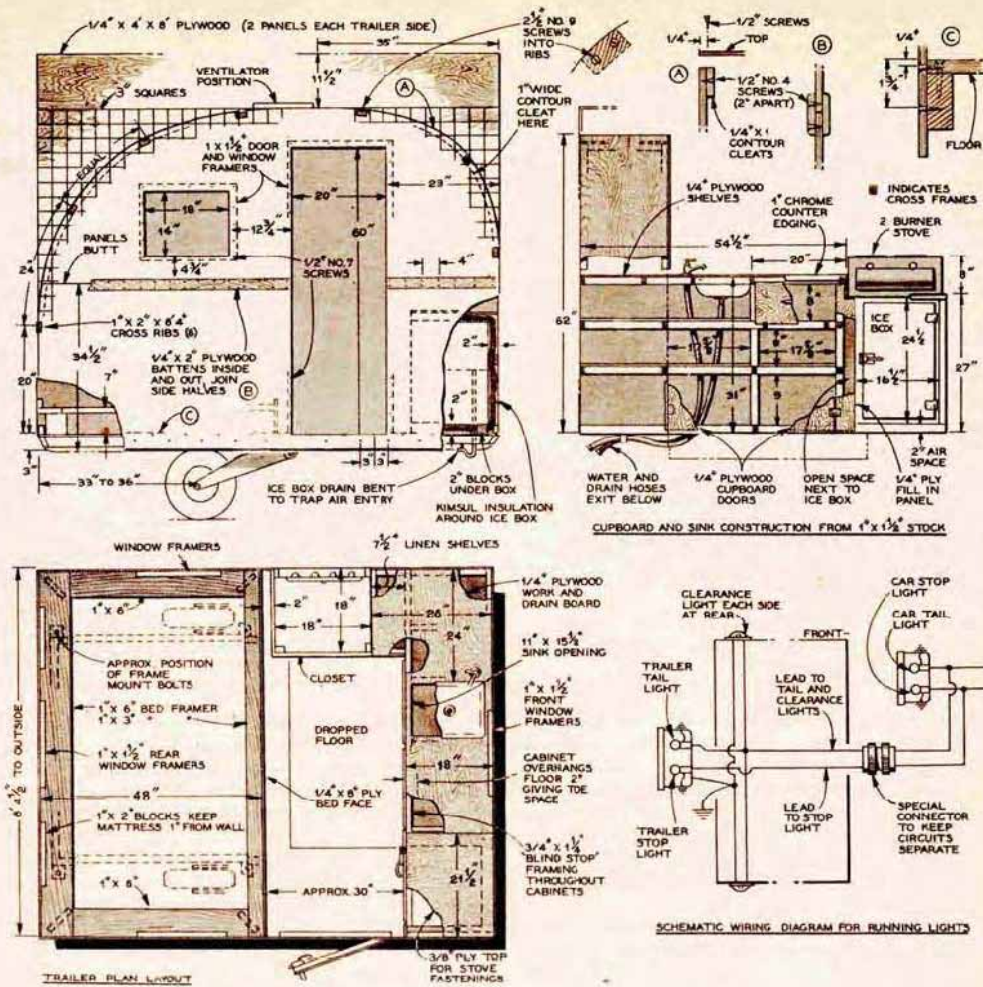
Lay out the dropped floor area. Bore  $\frac{5}{8}$ -in. holes at diagonal corners, and cut out the section with a keyhole saw. Smooth edges with a plane or sanding block. Cut 6-in. strips for the sides and ends from the  $\frac{1}{2}$ -in. scrap. These go around underneath the floor opening to form a box.

Attach  $\frac{3}{4}$ x $1\frac{1}{4}$ -in. strips all around the top of the box with  $1\frac{1}{2}$ -in. screws and bolt to the floor with  $2\frac{1}{2}$ -in. No. 10 flathead machine screws. Use  $\frac{1}{4}$ -in. drill. Turn floor over and bolt to trailer.

Lay out and cut the curves of the body sides from  $\frac{1}{4}$ -in. plywood as indicated in the sketch on page 107. Use the first side as a template for the second. Scribe an inch-wide strip around the curve of the scrap pieces. Move the pieces down onto the sides so the scribed line is just at the edge of the curve. Fasten with a few screws then cut around the line, using the curve of the side as a guide. These 1-in. strips reinforce the edges and facilitate attachment of the ribs.

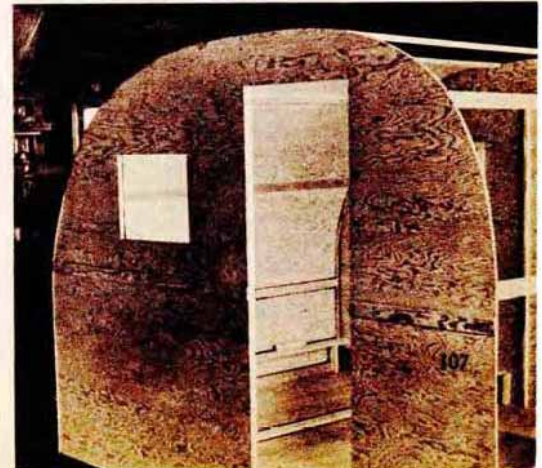
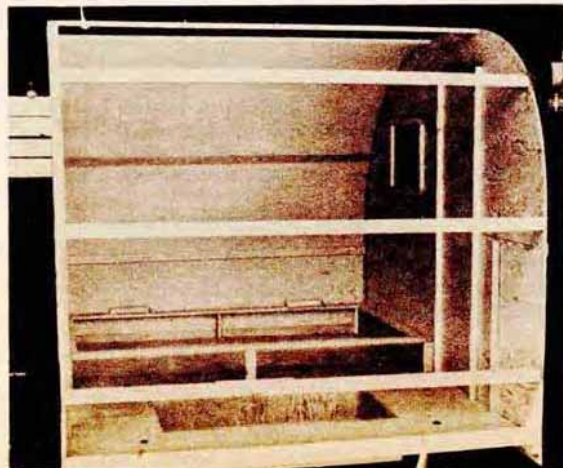
From one  $\frac{1}{4}$ -in. piece of scrap siding cut four 2-in. x 8-ft. battens. Clamp them together and bore two rows of  $\frac{1}{8}$ -in. holes 4 in. apart and  $\frac{1}{2}$  in. each side of center. Round the edges on one side of each with



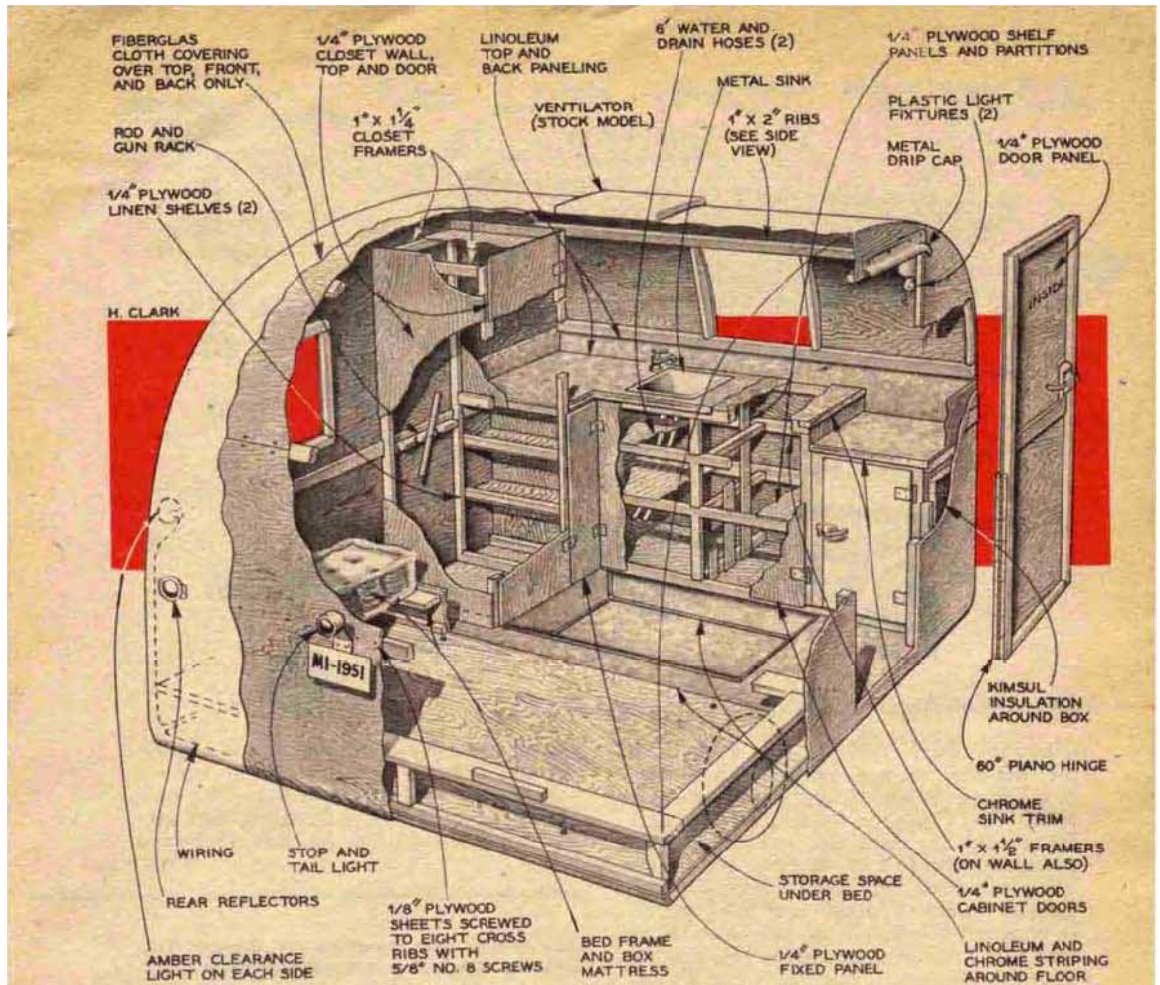


After floor assembly is completed, the 1/4-in. plywood sides and all the ribs are put in place.

Door and window apertures are now cut and framed. Note outside batten that joins side panels.

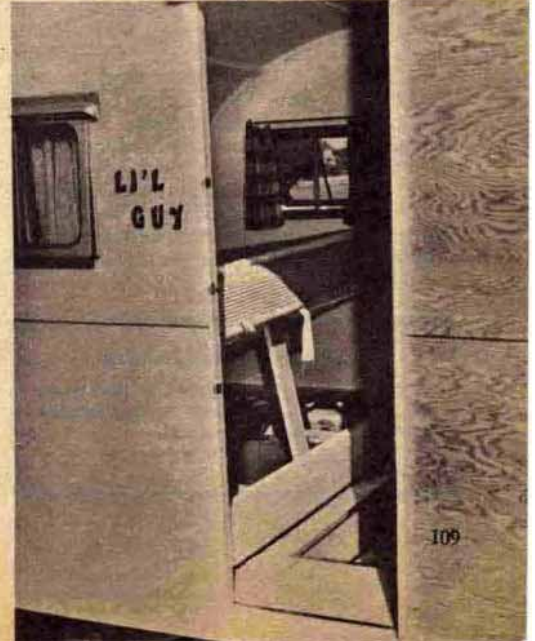




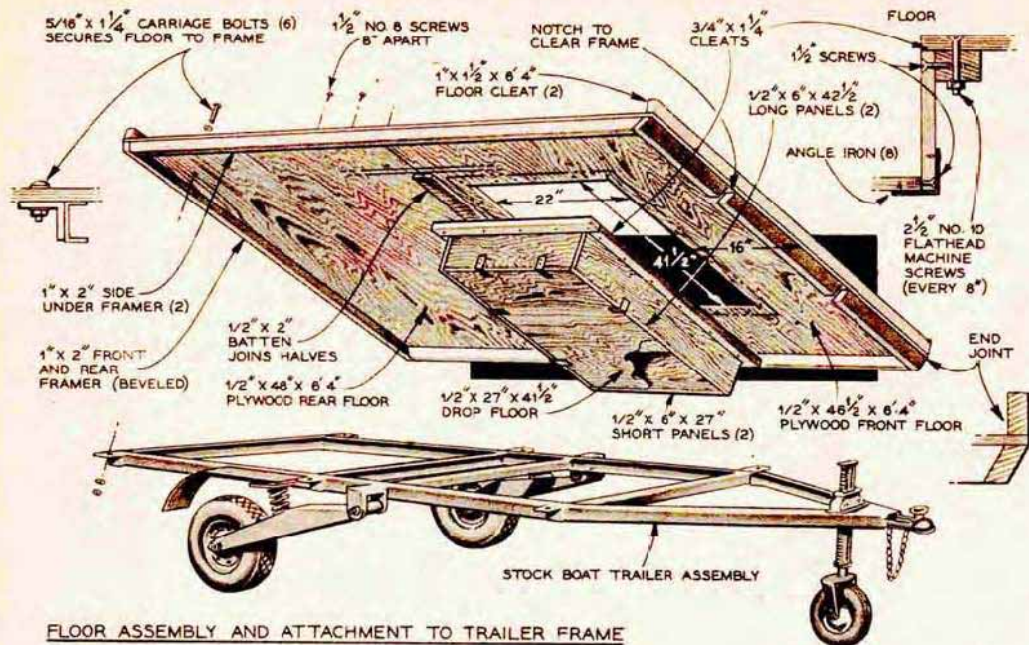


Repeat procedure with other half. The sides do not require cloth, but are covered with enamel.

The lifted mattress reveals ample storage room beneath. Panel protrudes 1 in. above mattress.







FLOOR ASSEMBLY AND ATTACHMENT TO TRAILER FRAME

a sanding block, and put two aside. Lay the left-side sections together and join them with one batten along the outside and 1/2-in. No. 4 screws. Glue liberally, and repeat with the right-side sections. Fasten temporary cleats 4 in. up from the inside lower edges of both side panels. On the exterior surfaces draw two light pencil lines along the length of the sides. Now bore two rows of 3/8-in. holes, one row 1/4 in. below the pencil line, the other 1 3/4 in. below. Alternate holes so they are 3 in. apart along the sides. (Diagram on page 107, detail C.)

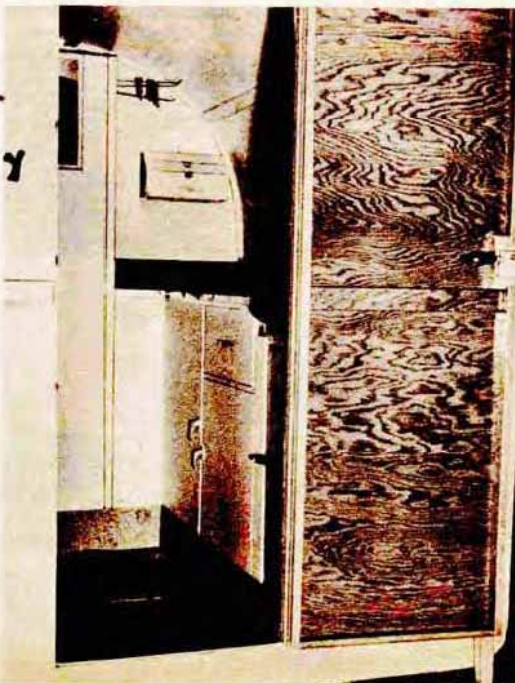
With some assistance glue and set one side in place, resting it on the blocks. Bore pilot holes into the under-frame through those in the side. With a few 1-in. No. 7 screws the side will stand alone. Be sure it is true and finish fastening it. Repeat with the other side.

Cut eight 6 ft. 4 in. top ribs from the 1x2-in. net stock. Beginning at the rear of the trailer and measuring around the contour of the sides, locate the center of the

first rib 20 in. above the floor surface. Space the others 24 in. apart, center to center.

As the top ribs are located glue the ends and drive an 8-penny finishing nail into the center of each end. At each rib, bore a

View through door shows ice box, dropped floor, cupboard detail, sink and sufficient work space.



### LARGE-SCALE PLANS

will greatly simplify construction. Send \$1 to *Mechanix Illustrated Plans Service*, Fawcett Building, Greenwich, Connecticut.

Please specify Plan No. HJ-17.



$\frac{3}{16}$ -in. hole through the side and a  $\frac{1}{8}$ -in. pilot hole into the rib  $\frac{1}{2}$  in. each side of the nail and drive in two  $2\frac{1}{2}$ -in. No. 9 screws.

Fit the  $\frac{1}{4}$ x1-in. curved reinforcing strips along the edges of the sides between ribs. Bore  $\frac{1}{8}$ -in. holes through them and fasten with  $\frac{1}{2}$ -in. No. 4 screws. Plane lightly around the curves of both sides to assure smooth surfaces for the roof sections.

Now for the top. Cut four 6 ft.  $4\frac{1}{2}$  in. pieces from  $\frac{1}{8}$ -in. x 4-ft. x 8-ft. sheets. Bore  $\frac{1}{8}$ -in. holes  $\frac{1}{4}$  in. from the ends of all four pieces. On one piece place temporary cleats 4 in. in from one edge, draw a line and bore for No. 7 screws as you did the sides. Bore two rows of  $\frac{1}{8}$ -in. holes every 4 in. along the upper edge, one row  $\frac{1}{4}$  in., the other  $\frac{1}{2}$  in. from the edge, alternated so they are 2 in. apart to prevent splitting the ribs. Sides of the other pieces are bored the same way.

Set the first sheet in place at the rear of the trailer. Be sure the edges are flush with those of both sides. Apply some glue and set the No. 7 screws in the under-frame. Glue the ribs and side edges also. Bend the sheet over and tack it to the second rib temporarily. Be sure edges still match. These top sections square the trailer sides and the edges must be true at all times.

Bore  $\frac{1}{16}$ -in. pilot holes for all edge and rib screws and use  $\frac{5}{8}$ -in. No. 4 screws. In-

sert them every 6 in. along intermediate ribs. Draw the edges down tight along sides and ribs. Work forward to complete the roof. There will be a space left below the No. 8 rib. Fill with  $\frac{1}{8}$ -in. scrap plywood. Put the inside battens over the joints in the side sections.

Install the door frame and rear wardrobe uprights. Use one of the windows and the ventilator as patterns and make frames for them from 1x2-in. stock. Use 8-penny finishing nails and glue on corners. Locate the frames on the inside walls, scribe the perimeters and cut the openings. Secure side-window frames in place with No. 7 screws, and the front and rear-window and ventilator frames with  $\frac{5}{8}$ -in. No. 4 screws. Some ventilators require both inner and outer frames.

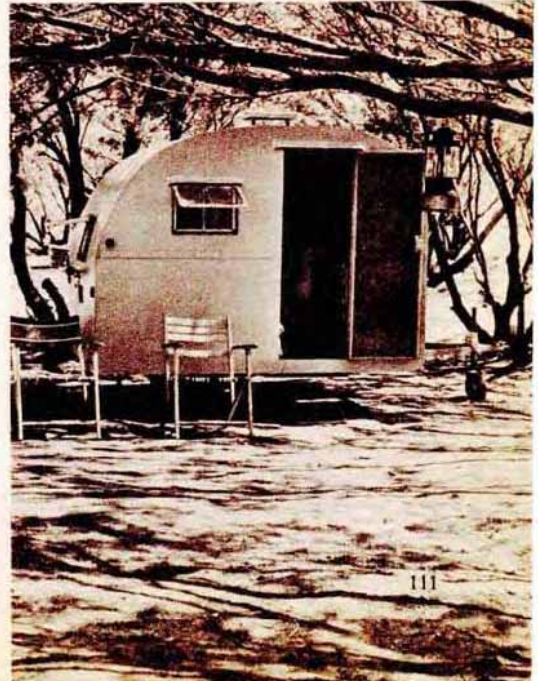
The bed frame is next. Fasten it to sides and rear with No. 7 screws and glue. Cut a 8-in. x 6-ft. 4-in. piece of  $\frac{3}{4}$ -in. plywood and enclose the front of the bed frame, using No. 7 screws. The protruding 1 in. holds mattress in place.

Build cupboard framework from  $\frac{3}{4}$ x1 $\frac{1}{4}$ -in. blind stop. Secure front and side ribs to sides and front as with the bed frame. Side ribs (end of the cupboard) are cut  $\frac{3}{4}$  in. short so that the cupboard front frames are attached to their ends. With partitions, shelves and ice box placed, enclose the front of the 18-in. wardrobe at the left side with  $\frac{1}{8}$ -in. scrap. [Continued on page 160]

Front under-frame is notched to accept trailer tongue. Note safety chain and connector plug.



After a day on the road Li'l Guy rests up—more than 1,000 miles from the place it was constructed.







THE MOST

*Versatile* TOOL  
ON YOUR BENCH!



## CHANNELLOCK PLIERS

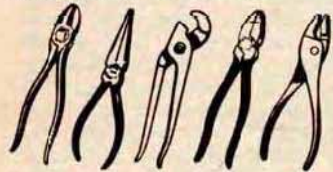
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## Build Li'l Guy

[Continued from page 111]

Complete the wardrobe and linen shelves and install the doors. The wardrobe and outer doors require frames to prevent warping. Use a continuous piano hinge on the trailer door itself and hang temporarily with three or four screws before cutting the T-bar aluminum weather strip to fit.

With the trailer in the shade, apply a coat of plastic from the center of the top to the rear edge over a space slightly wider than the Fiberglas cloth. Get some help and lay the cloth in place, center to center. Pull wrinkles out, working both ways. Pull 1/2 in. over the edges of the top in a straight line and tack to the sides every 2 in. Note that no cloth is used on the sides.

Repeat with the rest of the cloth, one half of each side at a time. Soak the over-lap areas until all air bubbles disappear before applying the second cloth. Apply plastic to the end under-frames, tack cloth ends and cut surplus.

Thin two quarts of plastic with a pint of acetone, and work it into the cloth thoroughly. Apply a coat to the sides and door. Roll the trailer into the hot sun. Turn it about as each area hardens. Apply two more unthinned coats to the top, three to the sides and door.

Sand the final coat, apply a coat of flat primer and two coats of auto enamel.

Install windows, door, ventilator and rain drip caps. Locate the lock so that the latch passes and engages the door frame. Strip brass or Monel prevents chafing the wood. Cover cupboard with 1/4-in. plywood and linoleum. Cover the floor and a few inches along walls and under stove with linoleum.

Wire the trailer with rubber-covered lamp cord, using insulated staples and special trailer lighting fixtures. Solder and tape all joints. Instead of the usual entrance receptacle I use a regular plug, hanging beneath the trailer. A canvas bag keeps it clean. I carry a 25-ft. extension cord for camps where 115-volt current is available. For camping I have 6-volt 25-watt lamps and a 10-ft. cord. Small battery clips on the cord engage a direct wire from the battery and the car frame, completing the circuit. When the trailer body is to be removed occasionally keep all wiring in the clear except the ground. Do not ground the 115-volt circuit. The trailer tongue may be shortened if desired but where a large boat is carried the long tongue is best. •

[See Page 190 for Parts List]



## Build Li'l Guy

[Continued from page 160]

### LI'L GUY BILL OF MATERIALS

#### Lumber and Plywood

2 panels  $\frac{1}{2}$ " x 4' x 8' exterior-grade plywood  
5 panels  $\frac{1}{4}$ " x 4' x 8' exterior-grade plywood  
4 panels  $\frac{1}{8}$ " x 4' x 8' exterior-grade plywood  
30 ft. of  $\frac{3}{8}$ " quarter-round for sink, floor and corners  
4 pieces, 1" x 2" x 14' No. 1 pine or equivalent  
9 pieces  $\frac{3}{4}$ " x 1 $\frac{1}{4}$ " blind stop (stock lumber yard item)  
16 ft. 1" x 6" No. 1 pine (bed frame)  
1 piece 1" x 3' x 8' No. 1 pine (bed frame)  
16 ft. 1" x 2" net (for side under-frame)  
14 ft. 1" x 2" net (for end under-frame)

#### Hardware

3 doz.  $2\frac{1}{2}$ " No. 9 flathead galvanized wood screws  
2 doz. No. 10-24  $2\frac{1}{2}$ " flathead machine screws, nuts and washers  
1 gross  $1\frac{1}{2}$ " No. 8 flathead galvanized wood screws  
2 gross  $\frac{3}{8}$ " No. 4 flathead galvanized wood screws  
2 gross  $\frac{1}{2}$ " No. 4 flathead galvanized wood screws  
2 gross 1" No. 7 flathead galvanized wood screws  
 $\frac{1}{2}$  lb. 6-penny galvanized finishing nails  
 $\frac{1}{2}$  lb. 8-penny galvanized finishing nails  
3 doz. No. 3 copper tacks  
 $\frac{1}{2}$  doz.  $5/16$ " x  $1\frac{1}{4}$ " carriage bolts, nuts and washers  
10 ft. T-angle bar molding for door  
5 rain drip caps for door and windows  
4 pr. cupboard hinges  
8 corner brackets for dropped floor box, 2"  
3 door latches  
6 ft. stainless steel edge molding for drainboard  
6 ft. aluminum linoleum trim for sink  
30 ft.-roll of stainless steel linoleum edging strip  
5 ft. continuous piano hinge for door  
1 faucet or sink fixture

#### Electrical Equipment

70 ft. rubber-covered lamp cord  
2 battery clamps  
pr. 110-volt plugs (rubber with spring-type prongs)  
210-volt cord receptacles for extension  
2 amber clearance lights  
1 tail lamp for trailer license plate holder  
2 plastic light fixtures with shades  
2 six-volt, 25-watt bulbs for trailer lights  
1 special connector for car-to-trailer lights  
2 reflector lights  
1 roll friction tape

#### Finishing Materials

2 gals. liquid plastic (Thalco Glass Fiber Products, 3417 West 8th Street, Los Angeles 15, Calif.)  
2 qts. acetone or lacquer thinner  
1 $\frac{1}{2}$  yds. Fiberglas cloth, medium weight, 44" wide  
2 qts. primer  
2 qts. auto enamel (brush)  
1 lb. putty  
Sandpaper, grades  $\frac{1}{2}$  to 00  
1 lb. Weldwood Glue (waterproof)

#### Trailer Equipment

1 boat trailer (W. H. Knapp, Newport Beach, Calif.)  
1 trailer tongue jack and caster  
1 pr. aircraft-type shock absorbers

#### Miscellaneous

1 two-burner Coleman Camper Stove (trailer model)  
1 mattress (lower half of box spring set with wooden under-frame)  
4 aluminum window frames  $13\frac{3}{4}$ " x  $17\frac{3}{4}$ " inside measurements  
1 overhead ventilator  
1 25-lb. icebox  $24\frac{1}{2}$ " x  $16\frac{1}{2}$ " x  $16\frac{1}{2}$ " deep with insulating material  
6 ft. inlaid linoleum  
2 qts. linoleum paste (waterproof)  
1 pt. wood alcohol for linoleum cement  
1 tube caulking compound for setting windows and ventilators  
2 lengths garden hose with fittings, 6" long

March, 1951