

Runlite Trailer

From Modern Mechanix, 1938

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>

"Runlite"—a Compact



Designed for the person who prefers a light portable shelter to a more commodious trailer, this lightweight streamlined modern vehicle is noteworthy for its very low cost and safety at high speeds.

Looking into the "cabin" through the open galley hatch. "Runlite" has ample space for two full length spring mattresses. Below—Body plan dimensioned to scale.

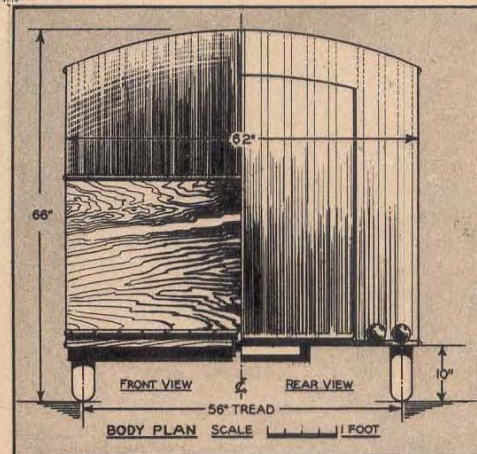
TRAILER owners incline to divide into two schools of thought; one group wanting the kind of trailer in which they can, if necessary, live permanently—the other preferring something lighter and more suitable for use on extended trips, such as vacations, where economy and high cruising speeds are of major importance. *Runlite* has been designed for the latter group.

By placing the wheels quite far aft it has been possible to make this an underslung job, making it directly possible to combine really effective streamlining with marked stability. The weight of the whole trailer being so low, much of the weight is carried by the tongue, a matter of no particular concern in the case of *Runlite* since it is normal for a load of 150 or even 200 pounds to be distributed on the hitch of all trailers.

Runlite can actually be towed at a 60 m. p. h. gait without straining any good light car.

Straightforward methods of construction are used in this design. There is practically no welding and absolutely no special machine work to be done. The roof, which at first glance may seem a problem, is actually simpler to construct than that of the average trailer.

Another word before starting in on the actual construction work: Comparison will reveal some slight difference between photos and drawings in this article. It is quite unimportant and, as far as that goes, the curves,



the width and the over all height may be modified to suit the builder's requirements.

Start with the frame. What few welded joints you will have to make are encountered here. If you lack the proper equipment or experience have the welding done by an expert. The cost will be low and the sense of security a good deal greater.

Use an old Model T Ford frame. At your local junk yard these should be anywhere from 75 cents to \$2.75. Using a hacksaw, cut out a $13\frac{1}{2}$ " length on each side 7" from the front end. Saw out the channels to fit and weld at right angles so that the frame now has a $13\frac{1}{2}$ " kick-up as shown in the drawings.

Traveling Bedroom

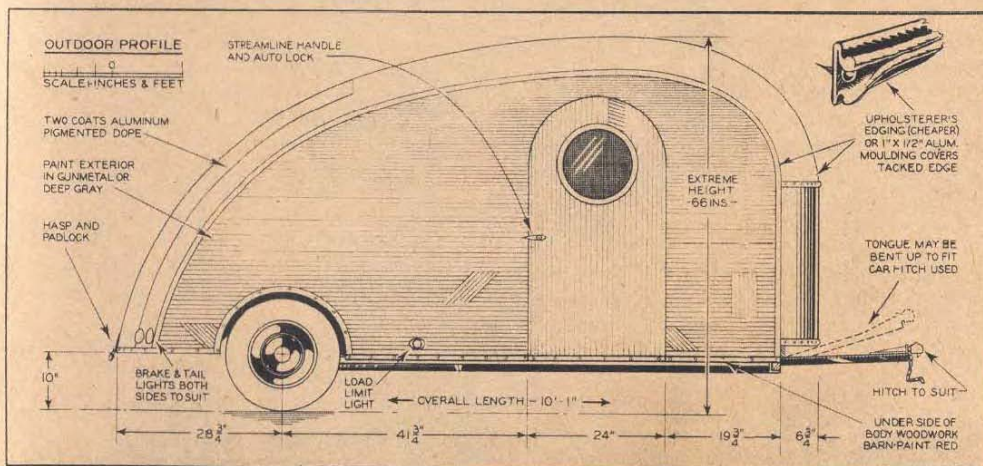
An angle iron tie piece $1\frac{1}{4}'' \times 1\frac{1}{4}'' \times \frac{3}{16}''$ is welded across the bottom of the frame as shown in the perspective drawing of the frame. At the rear end the rear face of the spring perch is cut off with torch or hacksaw. Into the perch a $2'' \times 4''$, preferably of white oak, is carefully fitted. This beam should be the full width of the body and its obvious purpose is clearly shown in the drawings. Two more lengths of Ford T frame are used for the trailer tongue and the cross-member to which it is anchored. Joints here may be either by welding or bolting. It will be necessary to cut out the filler piece for the tongue—which is bolted securely to the spring perch as well as to the channel cross piece.

Bolt or weld a standard hitch to end of tongue. The height of hitch can be adjusted by heating tongue and bending upwards.

Only four leaves of the front spring are used. A shim is put in under the perch clip bottom to compensate for the leaves removed. Second hand Model T steering tie rods are used in the manner shown for radius rods. The ball and socket fixtures for the frame end of the rods are from regular Ford radius rods. They should be welded on. The axle ends of the rods may be attached either by flattening and bolting direct to the wing spring perches, as shown, or drilled clear through the axle and bolted either side. This latter method provides an easy method of aligning the wheels.

$20'' \times 4''$ wheels from a motorcycle pick-up trailer are used. Such wheels fit Model T Ford spindles without change. They cost about \$4.00 each and the tires about the same.

The completed frame, ball hitch, radius rods



The profile lines of "Runlite," accurately scaled above, convey immediately grace and speed of the design. While the basic design should not be tampered with, headroom and width can be increased, if builder wishes, without harming the appearance of fast stepping trailerette.

Photograph here shows to advantage the charm small trailers of this type hold. Note excellent proportions of the vast pocket trailer—its very low-hung position, practical cooking facilities, obvious roominess. Hardly higher than small car, it sleeps and feeds two adults!



wheels and tires should not cost over \$20.00 with welding included.

The steering tie rod is cut in two, the ends flattened and bolted to the axle as shown. This completes the entire chassis and the rest of the job is straight woodwork (with a little tin work here and there).

Build the floor as a foundation for the body. Second grade Oregon pine flooring, tongued and grooved, is bolted to the chassis frame starting at the rear end and working toward the towing end of the trailer. This flooring should be wide enough to finish 61½" wide after trimming the sides for straightness. Rabbet the first plank laid to hold the ¼" bulkhead as shown and cut out where necessary for the spring perch at the towing end. This cut out is later covered with tin—see drawings. Lay a straightedge along the sides and saw off flush.

Next screw in the 1"x2" and 2"x2" stringers to the underside of the flooring as shown in the drawings, allowing the ends to project several inches beyond the floor at the rear. Stanchions No. 3 and the 2"x4" uprights are mortised into these projecting ends and the stringers trimmed off flush as shown in the detail sketches.

The stanchion framing can now be completed. The heels of the stanchions are boxed into the floor and bolted to the 1"x2" edge or side piece. With the main stanchions in the ¼" plywood or hard Celotex bulkheads can be installed and the boxes for the wheels built

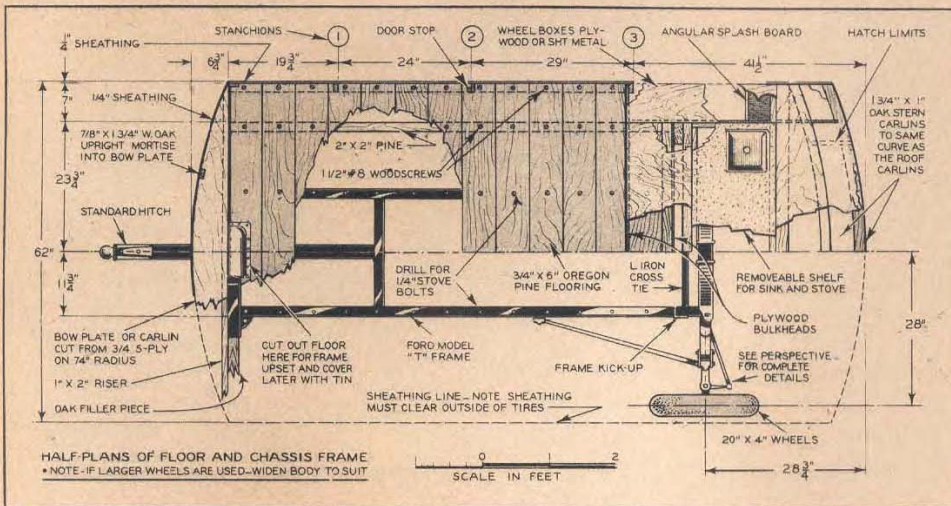
up. Framing for cupboards, water tank, sink and so forth is left until the body has been built.

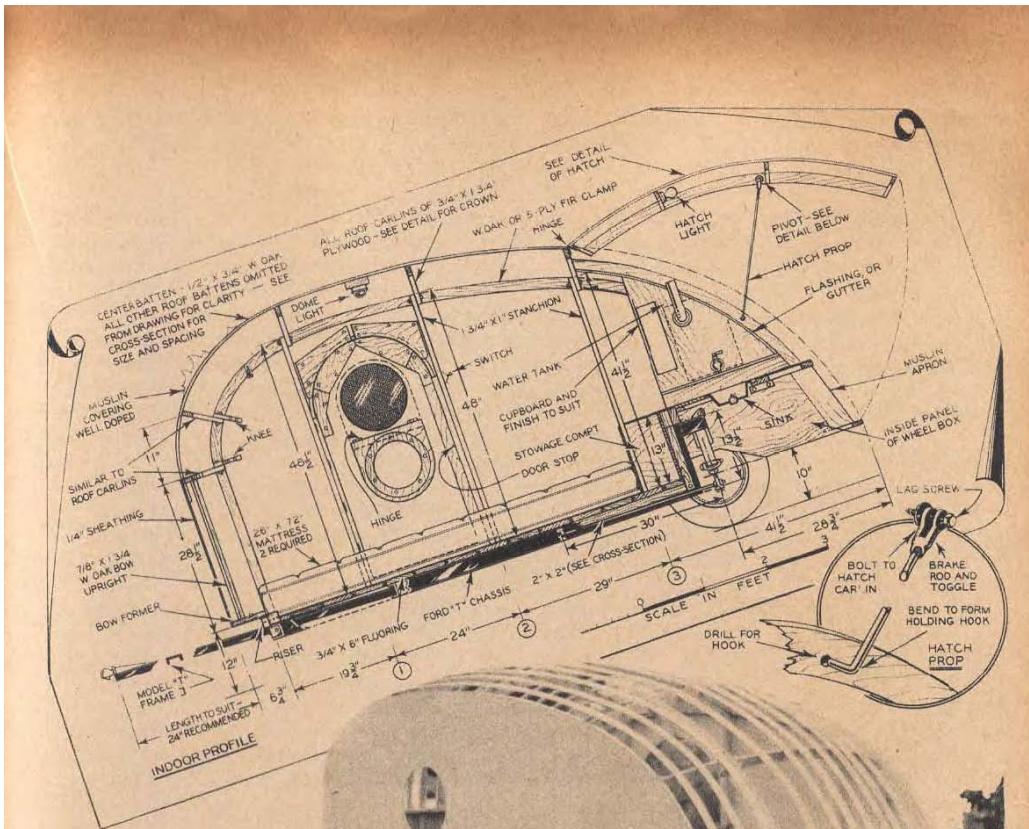
Cut out the crown carlins and also the bow plate. Detail drawings give the dimensions and it will be noted that 11 carlins in all are required. Some of these are used for the roof—three being bolted to the main stanchions already installed. The remaining carlins are required for bow and stern, and for the hatch. Install the bow plate in the manner shown. It is cut on a 72" radius, is ¾" thick and 6¾" deep. It is screwed to the riser strip which in turn is bolted to the filler piece in the spring perch.

The side clamps or roof strips can now be sawed to shape and mortised into the tops of the stanchions as shown. They may be lightly screwed until the outer sheathing is applied. This sheathing, of fir plywood, ¼" thick, or hard Celotex, is screwed directly to the stanchions, floor edges and 1"x2" outer strips. The carlins at front and back of the trailer are put in with knees as shown. Do not apply the sheathing to the front end of the trailer until the roof battens have been bent in. If these prove stiff, soaking for half a day under the lawn sprinkler will render them pliable. They are fastened over the carlins without notches except where they bend into the front, or bow cabin. They are notched flush into this former. Use light screws to secure the roof battens.

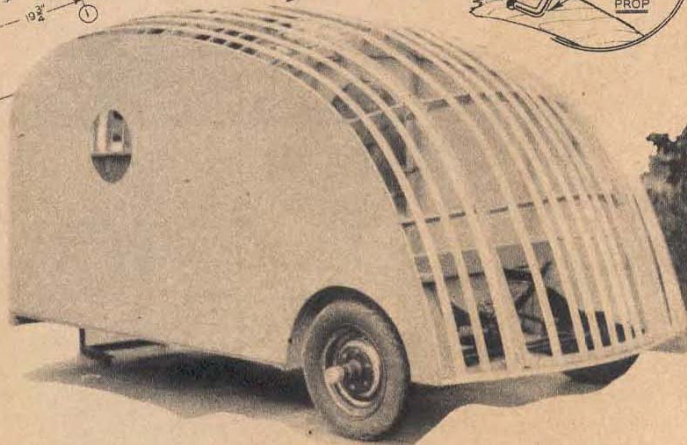
The lift-up cover over the galley, called a hatch in the drawings, is built up in the manner shown. The longitudinal carlins are cut to the same sweep as the roof from ¾"

These plan views of the trailer, chassis and floor frame, used in conjunction with indoor profile plans on the following page (and the sectional views of the body), should be studied carefully.





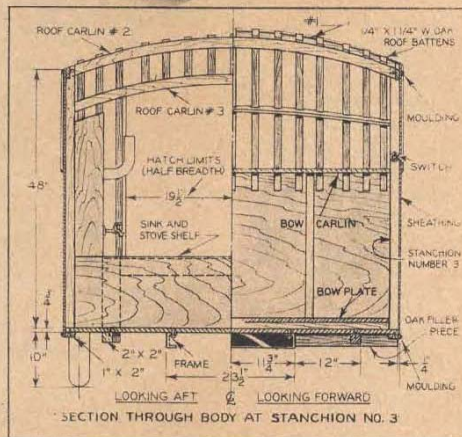
Drawing above, in conjunction with the cross-section drawing below, gives many details and dimensions which will be helpful to builder. Lines for curve of roof edge should be taken off "outdoor" profile drawing, or at least checked from that plan. Completed body, ready to be covered, shown at right, will aid in reading the plans shown.

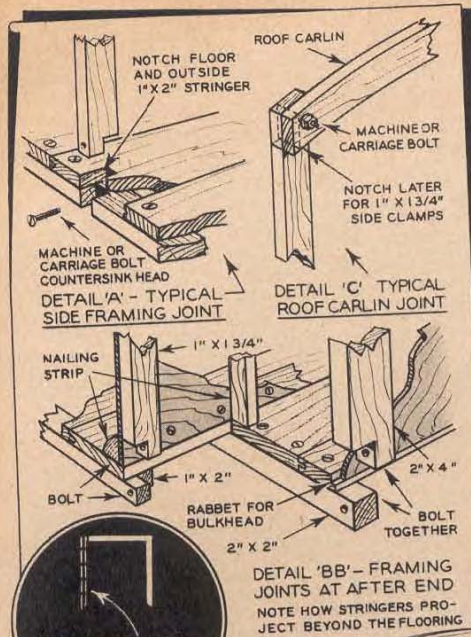


plywood. Cut out four of these carlins, two of them being permanently attached to the stern portion of the body frame as shown. The other two of course form the sides of the hatch opening in the manner shown.

Attach the sheathing to the front end now. It will bend to the slight curve quite easily.

The door is clearly indicated. Lock arrangement and so on is left to the builder though a streamlined blind door handle was used on the trailer pictured. A 12" porthole is cut into the door and another one exactly opposite in the sheathing on the other side. A screen is secured to the outside of each port and inside they are furnished with hinged windows as clearly shown. Glass or

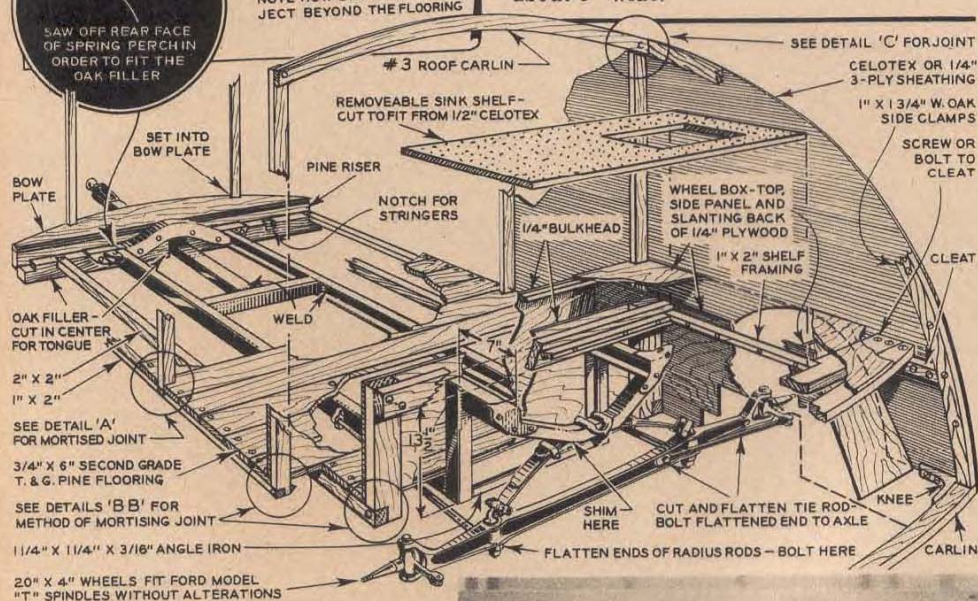




airplane windshield pyralin are equally satisfactory for these windows. It has been found that the two ports provide ample ventilation for even the hottest weather.

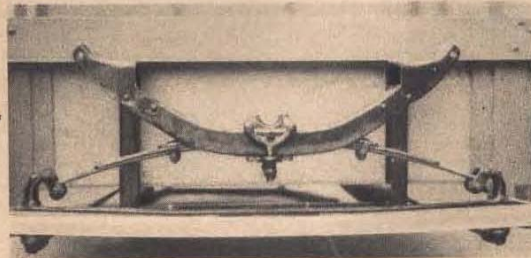
The next step is to cover the roof. Use grade A muslin costing 18 to 24 cents a yard at most stores. Start at the front end, tacking on 1" centers with small carpet tacks, and stretch lightly over the sides as you proceed toward the rear until the tail carlin is reached. With two gallons of aluminum pigmented nitrate dope you will be able to render the roof drum tight and waterproof. Correct procedure in doping cloth is to lay the first coat on around the edges and work toward the center. The edges can be finished with either aluminum edging or regular upholster's edging. Both are obtainable at automobile stores.

The galley is pretty thoroughly covered in the various drawings. The space formed by the two bulkheads makes a good place for odd clothes or other stowage. It extends from wheel box to wheel box, is 13" deep and about 8" wide.



GENERAL PERSPECTIVE CONSTRUCTION DRAWING SHOWING FLOORING AND OTHER FRAMING DETAIL

This important construction drawing is not in scale but is arranged to show the general detail of the chassis, the flooring and—above—the principal stanchion joints. Note how the frame is "kicked up" in order to underlie the trailer. Note also the framing about the wheel boxes and the installation of the bulkheads and the bow plate. Study with the photo at right.

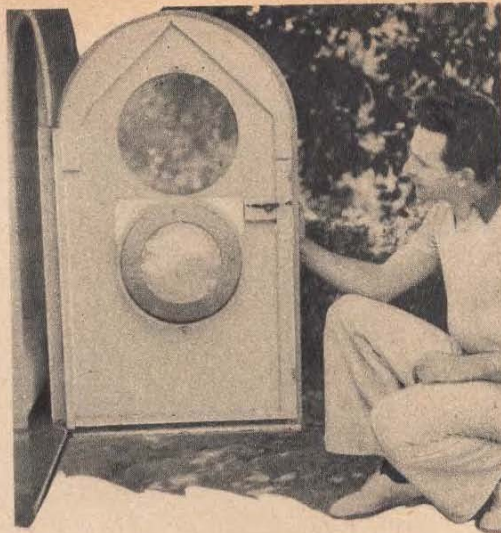


Immediately aft of this compartment the sink and stove shelf is located. This shelf is made readily detachable so that the axle may be inspected if necessary or to permit the easy placing of a jack under the axle in case of flat tires.

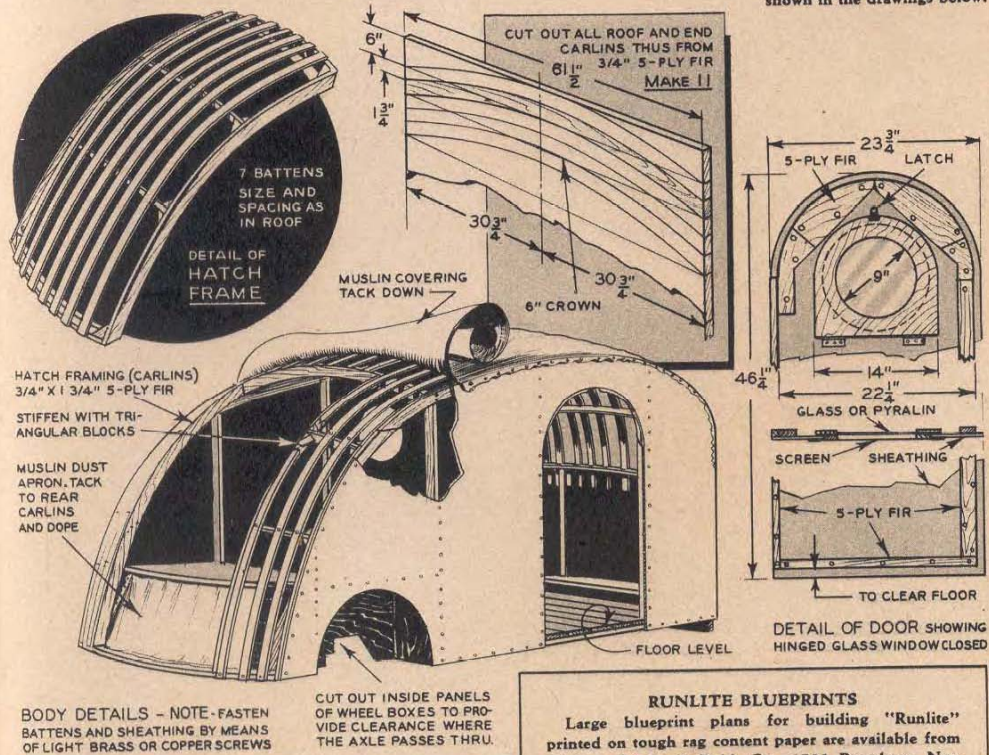
The shelf rests on a light framing of 1"x2" pine as shown in the drawings. It can be held in place by a few light screws or by four wing nuts. The stove is secured to it in the manner shown and a simple sink can be made from a large cake pan and set into the shelf with small screws.

A muslin apron, tacked from shelf carlin to rear carlin and from wheel box inner panels, serves to keep the dust out. This apron should be doped.

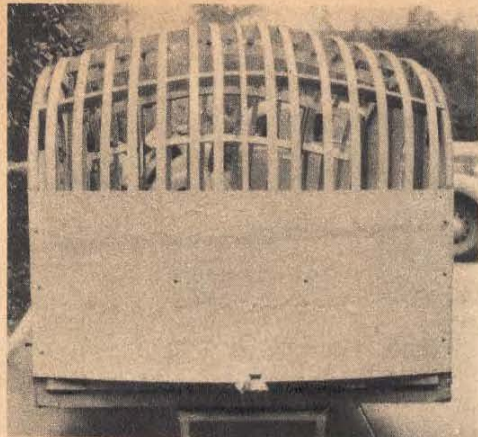
The tank for water may be any size and the details of its installation will naturally depend upon the size used. In any case it should be so arranged as to empty directly into the sink. Cupboards and shelves may be any way you prefer. A



Here is an exceptionally clear picture of the simple door. It may be varied but it is hard to improve for simplicity and sturdy construction. Note the blind door handle box—not shown in the drawings below.



The roof carlins or beams are cut in the manner shown above. Galley hatch side carlins are cut to normal profile body lines.



This front view of body ready for roof covering to be tacked on shows the roof carlins, battens and bow details very clearly

simple arrangement as used by Mr. Trenmore Garstone, builder of the trailer illustrated, is shown in the sketches.

Lighting details are left to the builder. Two dome lights proved ample for *Runlite*.

Paint the entire under portion of the trailer with barn red paint to prevent weathering. The interior, including the floor is finished cream. The under side of the muslin roof should not be painted. The exterior sheathing is finished in Duco gunmetal.

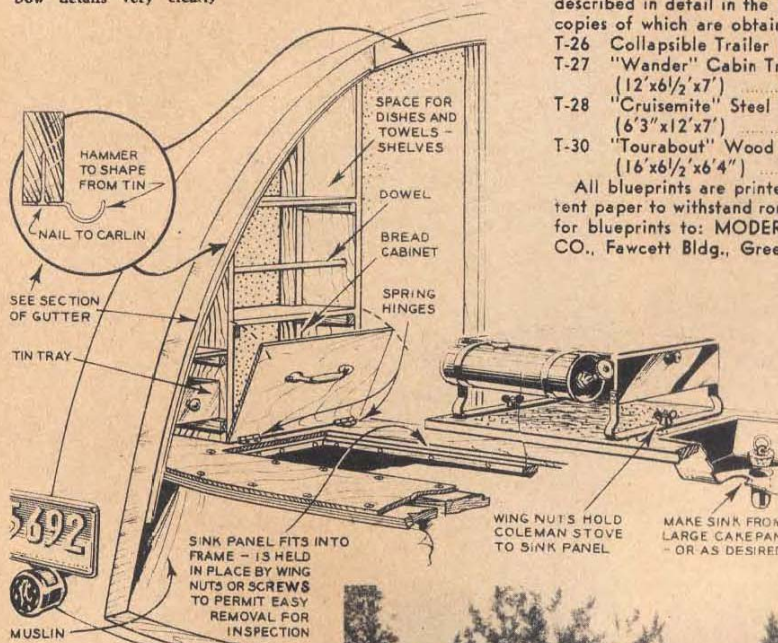
Completed, your *Runlite* trailer should not cost more than \$75.00 at the outside. It can be built for less if you know how and where to buy.

OTHER MM TRAILER PLANS

In addition to the plans for building "Runlite" which are available at \$2.00 postpaid, MM can also supply plans for the trailers listed below and described in detail in the 1937 Blueprint Booklet, copies of which are obtainable for 3.

- T-26 Collapsible Trailer (14'x6'x6'10") \$1.50
- T-27 "Wander" Cabin Trailer (12'x6 1/2'x7') 1.00
- T-28 "Cruisemite" Steel Frame Trailer (6'3"x12'x7') 1.50
- T-30 "Tourabout" Wood Frame Trailer (16'x6 1/2'x6'4") 1.50

All blueprints are printed on durable rag content paper to withstand rough usage. Send orders for blueprints to: MODERN MECHANIX PUBL. CO., Fawcett Bldg., Greenwich, Conn.



The sketch at left shows one method of fixing up the pantry side of the galley. It also shows details such as the rain gutter and the stove and sink attachment. Down below the port-hole exterior is depicted. There is one port on each side in this design. Immediately below we see this dashing "air flow" trailer all set to go.

SUGGESTED PANTRY ARRANGEMENT

