

# PART I – For the Float Builder

## How to Build a Parade Float

The noun "FLOAT" is like "parade" in that it can mean many things: A regulating device, a fishing bobber, a life preserver, a barometer gauge, a buoyant dock, a brewing vat, a plasterer's tool, a harrow, and so on. Looking down the list of definitions you will also find: "A flat-topped vehicle without sides for carrying displayed exhibits or objects in a procession; also, such a vehicle with its displayed exhibits or objects."

In the business of building floats, a float is often called a "production." The word "float" was probably first used to mean a parade car because that's what a float should seem to do— "float". And it achieves the appearance of floating through its special construction and its embellishments, including the all-important fringe, which hides the wheels and gives it the look of being suspended in the air, gliding along without support.

There are schools that offer credits to members of manual training classes for their work in building floats for the hometown parade. Many small business owners build their own float in their garage, keeping it carefully hidden until the day of glory. Some of them have become very adept at this do-it-yourself construction. Clubs have made wintertime projects of building floats. Private individuals with a flair for form and color have made a hobby of designing them. A float is a personal creation.

### Making a Beginning

To begin with, you will need four wheels, attached, of course, to axles, and a framework. In some cases, float builders have started with nothing but wheels and axles, sometimes only wheels and one axle. Two-wheeled floats can be found. But the four-wheeled variety is much more stable and easier to work with.

Floats may be built on trailers, trucks, cars, wagons – almost anything that can move, even boats, though the chance to build floating floats comes infrequently. Eighty per cent of all floats start with a flat platform: a truck bed or a trailer. If it's a truck, the design should blend the cab into the picture, or the cab may be removed and a special space left for the driver. A small tractor generally pulls a trailer, and that, too, is included in the decorative scheme.

Suppose you're planning to build a float, and you already have a trailer. Your next concern is a place for construction, and space of this type is at a premium. If several floats are to be built, the construction site should be a large, open building, preferably without roof-support posts. And with doors large enough for egress. An airplane hangar is the ideal location for float building. In a small town, the lumberyard building generally offers the roominess needed, as well as a good supply of basic materials.

### Try for Novelty

There are a few basic designs, which are always good, with different decorative touches, but you may prefer to try for novelty. You have two elements to work with: shape and color. Too often the effect of a float is spoiled because it sticks too closely to the

practical outlines of the vehicle on which it was built. The idea is to mask the underpinnings completely by varying the overall shape, by working curves and swirls into the ground plan, and developing an imaginative topside form. Almost every float has a climactic point: the place where the personalities ride, or the massive emblem is mounted, or an animated figure goes through its paces. The upper levels of the float are shaped to lead the eye to this point.

Once you have established your design, you fill out the ground outline with plain, light lumber, cut in whatever curves are necessary, and fastened securely with nails or bolts to the trailer bed. When your lateral shape is set, the vertical outlines, transverse, fore-, and-aft, are cut in plywood or wallboard and securely mounted. If your float is to carry live figures, platforms for them must be rigidly built and provided with unobtrusive braces for float riders to hold on to. If several riders are to populate the float, they should be placed at two or three different levels, highest at the rear and center. Any float should be symmetrical, one side the same as the other. The sidewalk-bound onlooker will get no opportunity to move around and look at any mysteries on the other side.

In all this construction, you make allowance for wheel clearance, springing, and the turning radius of the float. You should inspect the parade route to note any bumps or depressions for which allowance must be made, so your float doesn't scrape a forward or rear overhang. If the float is on a truck, see to it that no flammable material is near the hot exhaust line. You may decide to rig a special extension to carry exhaust beyond the overhang. It's advisable, and it's wise, too, to wrap the exhaust pipe to increase the safety factor.

Having come this far, you have the skeleton of a float or basic framework, undecorated,

only partially shaped. Next you round out the shape, to form it into curves and hollows, or to give it that streamlined look. Perhaps part of the exposed portion of your float is solid material, woodcut to shape, or plaster. These surfaces should be painted before any of the other finishing material is added. You might sprinkle or glitter over the freshly painted surfaces to give these an eye-catching sparkle.

## **Putting on the Finish**

Many special decorative shapes are available already molded in heavy materials exclusively for float use. To the outline, after the exposed portions are painted, attach any of a number of finishing materials—vinyl or metallic floral sheeting, in a rainbow of colors, or with designs worked in; aluminum foil paper, also in many colors, used flat or crumpled before application to increase its light-scattering properties, sparkle sheeting, or any other of various finishes which may catch your eye. Artificial flowers, or real ones, may be attached, as may stars, crescents or other appropriate decorative cutouts..

Part of your float may require mats, or vinyl and metallic twists to accentuate its lines. Your choice is wide. The materials you select are applied with special adhesives or stapling devices. And the finish itself is subject to some corrective shaping to get exactly the outline you want.

Metallic or vinyl fringe goes around the bottom of the vehicle to mask the running gear. A float is generally built with its bottom level spaced from the pavement to suit the length of the fringe. If a fifteen-inch fringe is used, the float edge is built fifteen inches from the pavement. With a one-inch overlap for fastening, this allows a one-inch clearance, just right to create the illusion of floating.

For Float Supplies

Visit <http://www.victorycorps.com/floats.html>

Or Call 1-800-328-6120

You now have a standard float which, if your estimate of limitations is correct, is ready to go into the parade.

## **The Animated Float**

The standard float, without decorative sidecars, has some noteworthy cousins of more elaborate design. Animated floats have been built more and more cleverly each year. Fish blow bubbles, figures walk, dogs pull sleds, waterwheels turn, windmills revolve and mannequins play music.

These involve a basic departure in the building of a float; the groundwork for a powered float is at least twice that of the conventional production. The mechanized equipment must be built, installed, tested and anchored. It must stand the strain of traffic before the rest of the work goes forward. Endless belts, gear trains, eccentric mechanisms—virtually every transmission device has been used in float animation. What makes the whole idea possible is the portable power generator, and its installation involves still more wrinkles in basic float design. Provisions must be made for safely exhausting the small but efficient gas engines which run them. The design must also allow plenty of ventilation, since most of these engines are air-cooled.

The wiring that goes into some animated designs may be complex, and should be installed and tested when the float is in the frame state. There will be little opportunity to make changes after the production is decorated. In some cases, animation is powered by a driveshaft clutched and geared directly to a gas engine, eliminating wiring. Gas - electric power permits greater control. Occasionally power engines must be additionally muffled to prevent discord with the music of a following band, or just to mask the obvious.

Float design should allow for wind pressure, and internal bracing should guarantee that surfaces exposed to gusts of wind aren't damaged. Above all, with a powered float, make sure that its working parts are accessible for repair from the inside. Many a float sponsor has had his day ruined by learning that a spark plug couldn't be changed without breaking through the decorative capsule, necessitating additional repairs. Some sponsors insist that a float-builder be on hand, with materials, as a parade is about to start, to make decorative repairs quickly in case of minor accident.

## **What Colors?**

Too many builders, particularly those with limited experience, worry about color. Few colors will clash on floats. The materials are brilliant and more likely to accent the hues of other materials than to cause discord. Pastels are used more and more in float decoration, chiefly to set off strong colors, and it is in pastels that conflict is most likely. Don't imitate Christmas and do the job up in conventional red and green, but strive for novelty. You may find your color scheme in the theme of your parade, or in the idea of your float itself.

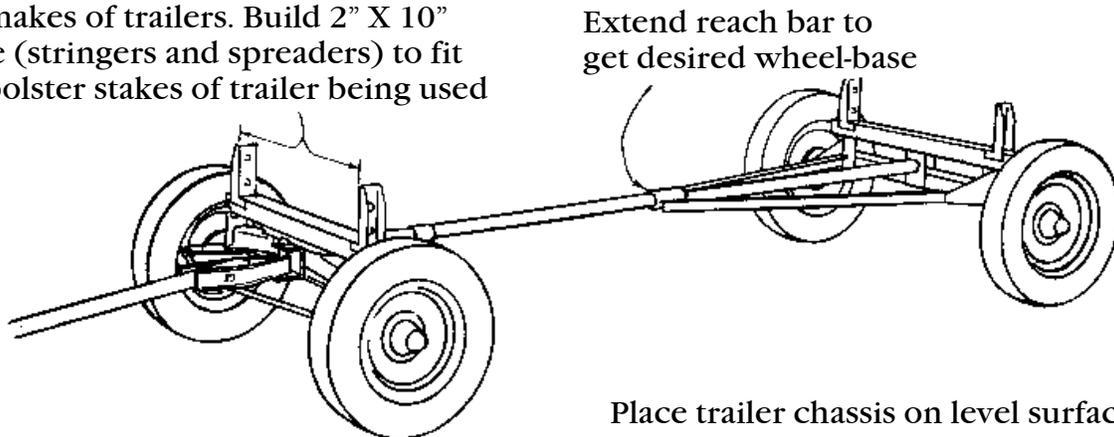
Some nationality groups with strong influences in parade cities prefer particular groups of colors, perhaps those of their old-country flags. Some of the new metallic materials, and the neutral plastics, make color selection unnecessary. It's show and glitter you're after, and the golds and silvers have it. A patriotic parade has a general color scheme already established.

**Presented By Victory Corps**  
**Minneapolis, MN**  
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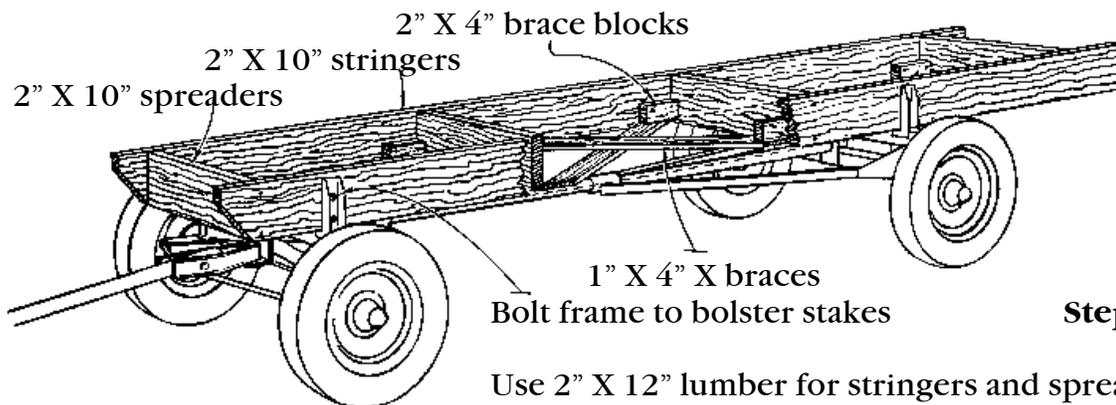
# Basic Steps of Parade Float Construction

Basic steps of construction for a 7' X 20' parade float on a 4-wheel trailer chassis

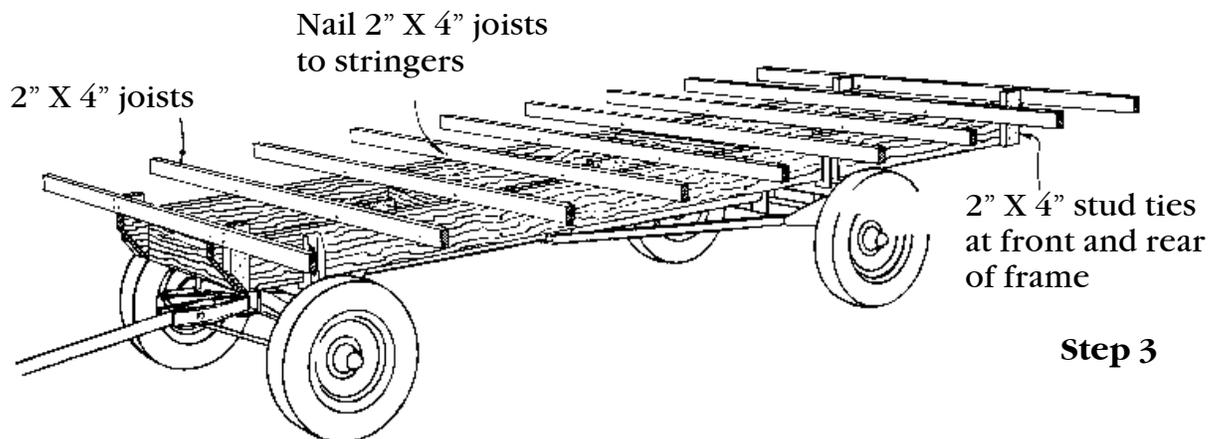
Width between bolster stakes will vary on different makes of trailers. Build 2" X 10" base frame (stringers and spreaders) to fit between bolster stakes of trailer being used



Step 1

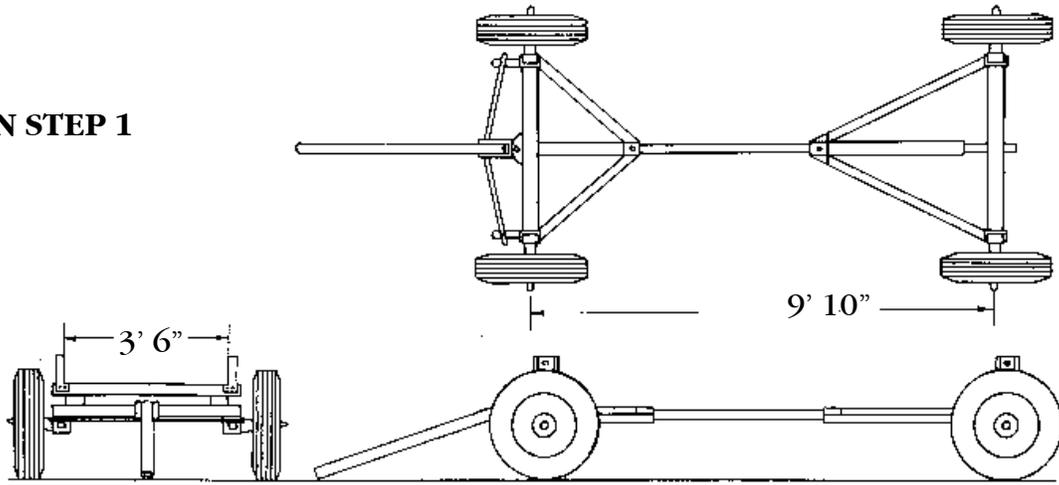


Step 2

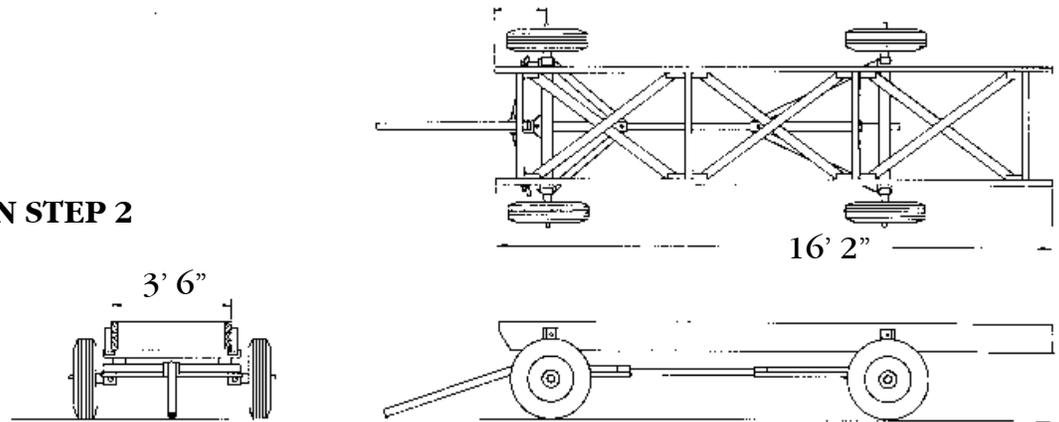


Step 3

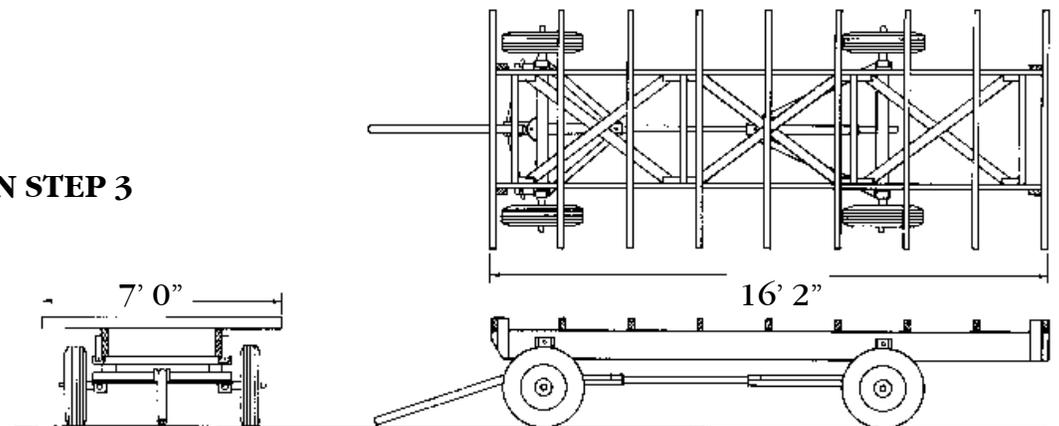
**PLAN STEP 1**



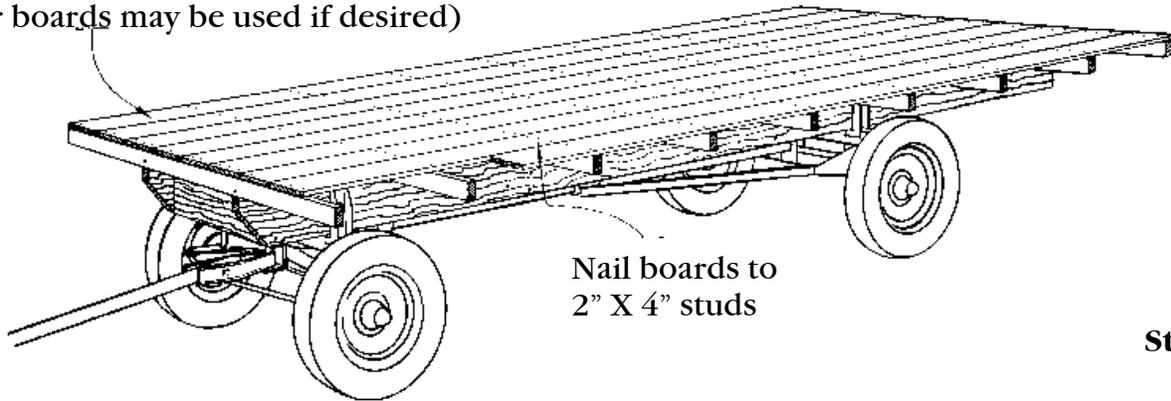
**PLAN STEP 2**



**PLAN STEP 3**



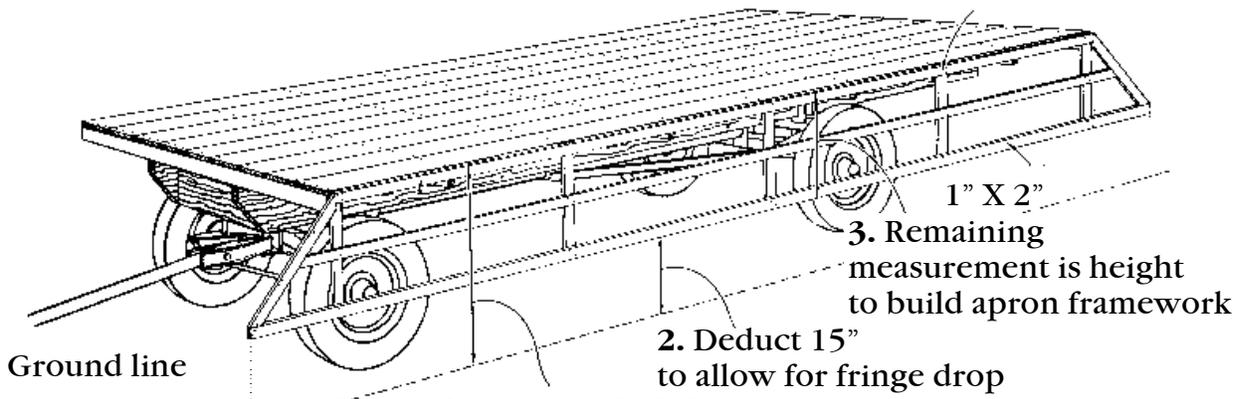
Floor in trailer platform with 1" X 6" boards  
(wider boards may be used if desired)



Nail boards to  
2" X 4" studs

**Step 4**

Nail apron to trailer platform



Ground line

1" X 2"

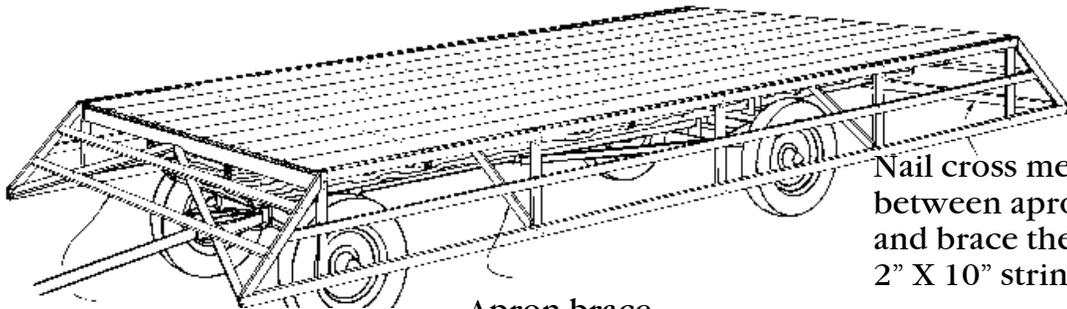
3. Remaining  
measurement is height  
to build apron framework

2. Deduct 15"  
to allow for fringe drop

**To determine apron height:**

1. Measure distance between top  
of trailer platform and ground

**Step 5**



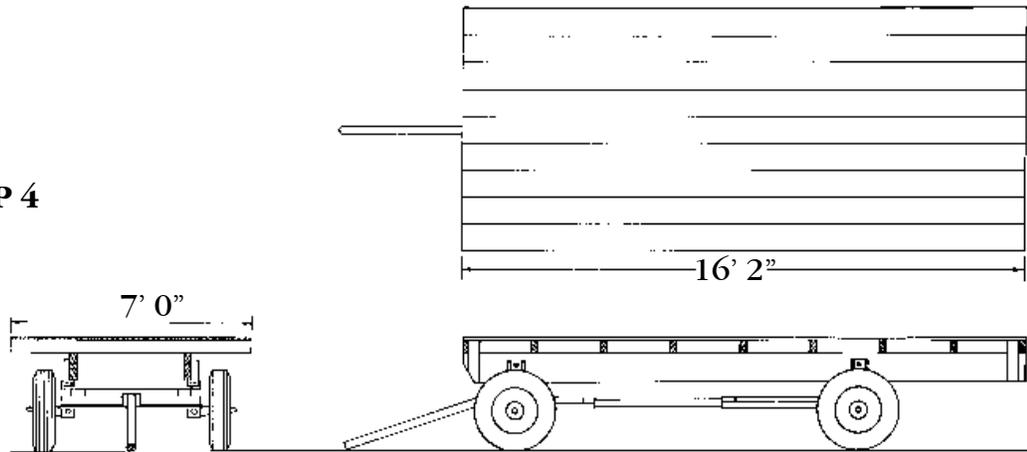
Nail cross members  
between apron sides  
and brace them to  
2" X 10" stringers

Apron brace

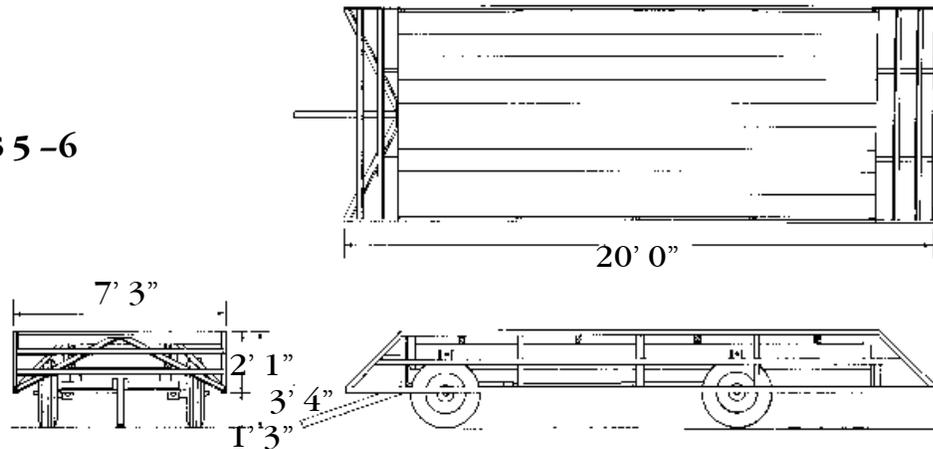
Lower cross member on apron front frame  
is elevated to allow for trailer tongue clearance

**Step 6**

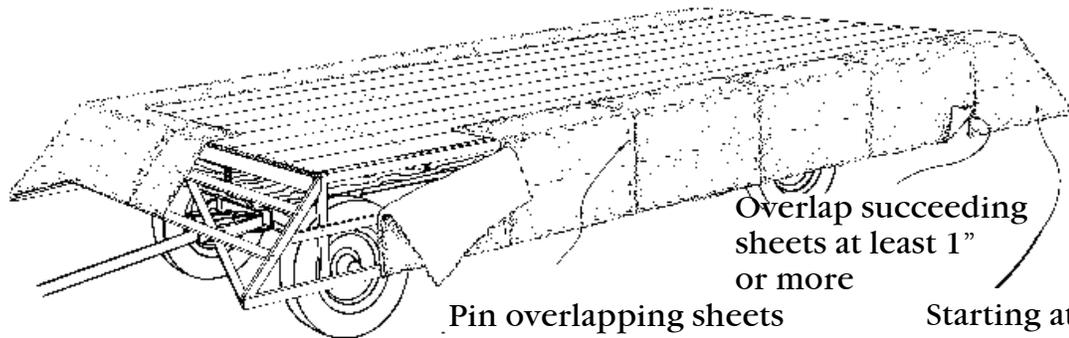
**PLAN STEP 4**



**PLAN STEPS 5 -6**



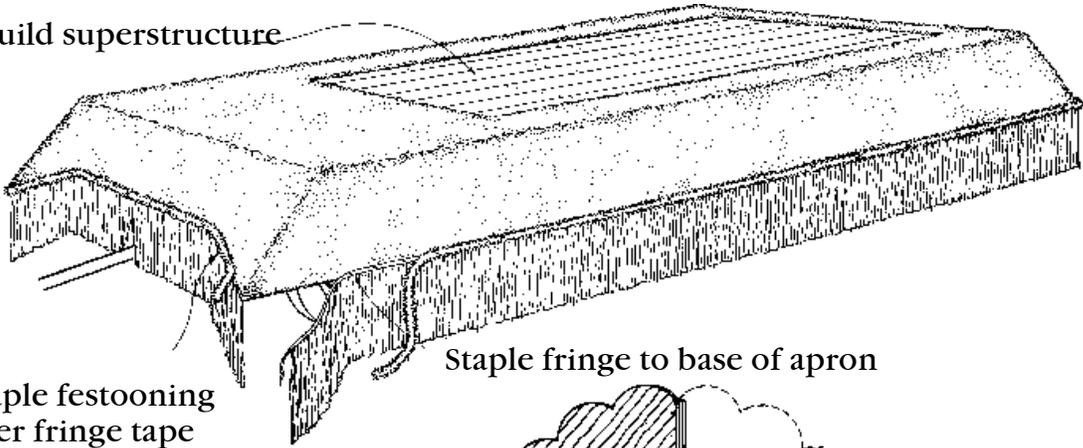
**STEP 7**



Pin overlapping sheets together where material joins over open framework

Starting at the back, staple floral sheets to apron frame

Area to build superstructure



Step 8

Staple festooning  
over fringe tape

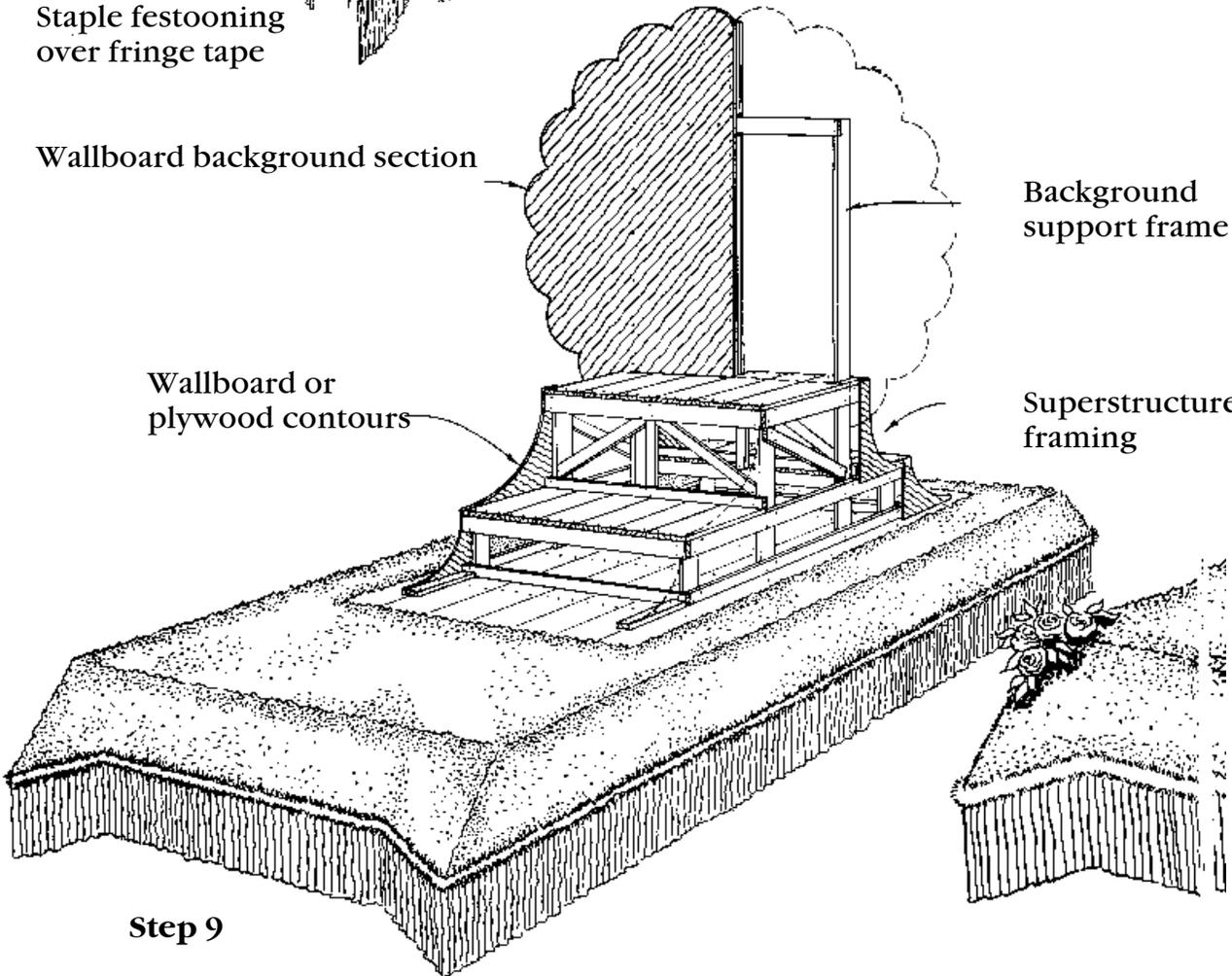
Staple fringe to base of apron

Wallboard background section

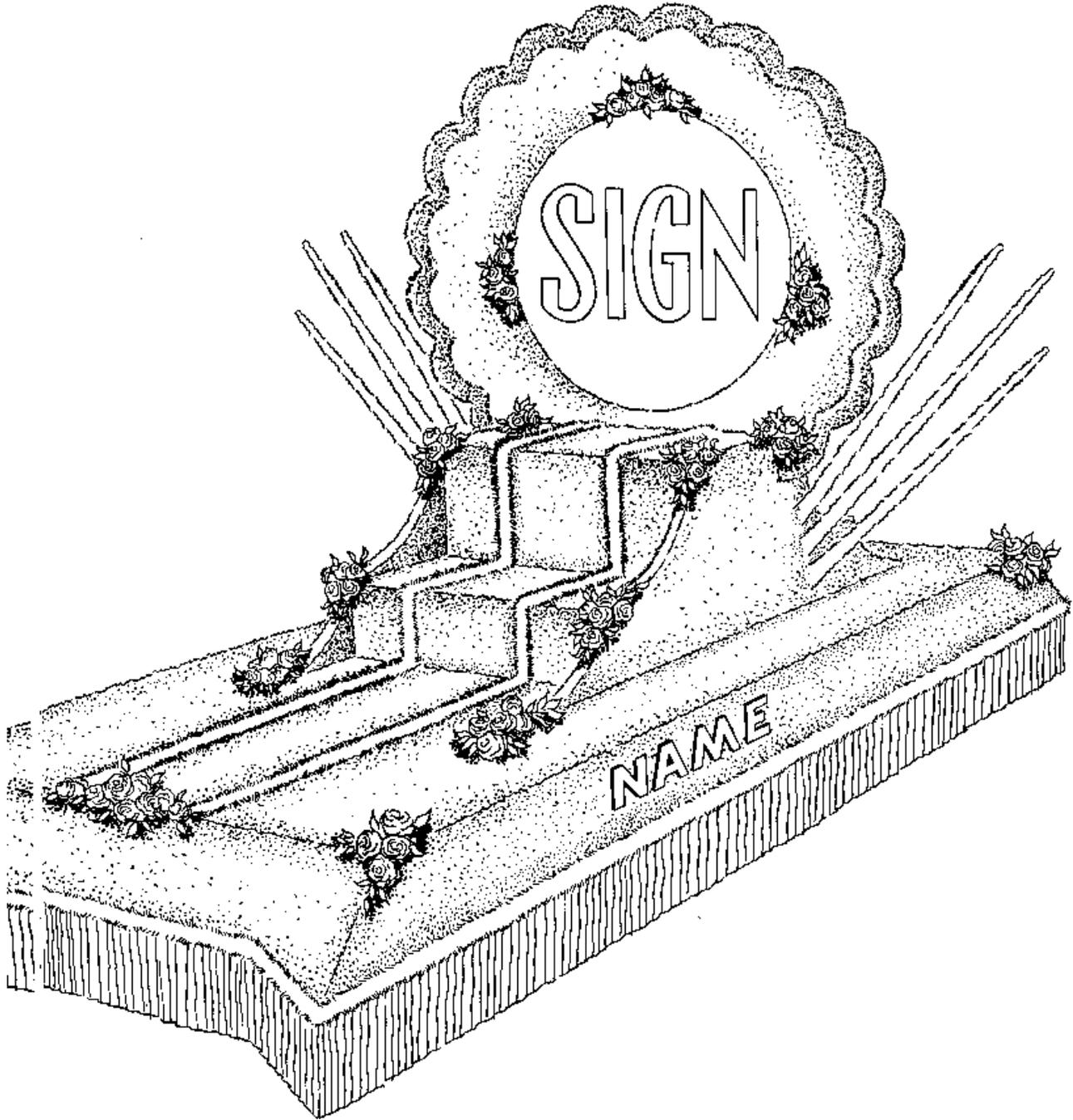
Background  
support frame

Wallboard or  
plywood contours

Superstructure  
framing

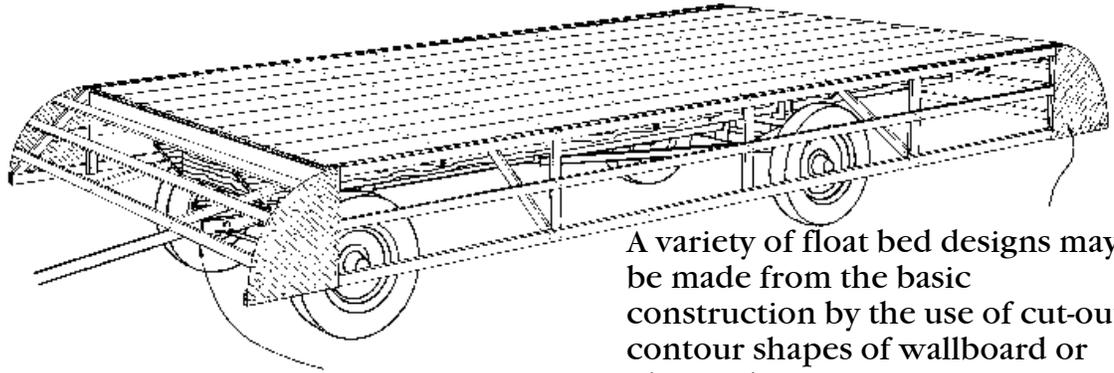


Step 9



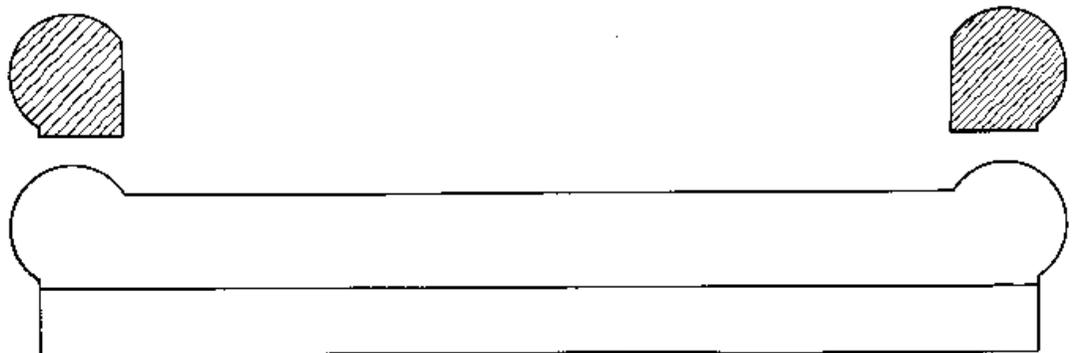
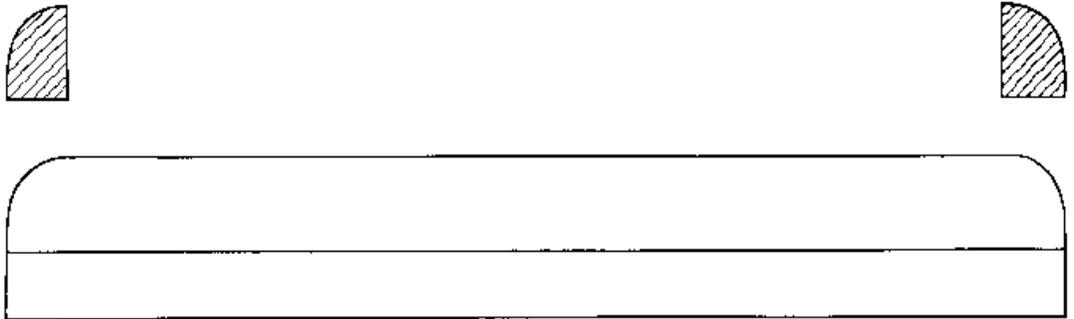
Step 10

**WALLBOARD OR PLYWOOD CONTOURS**

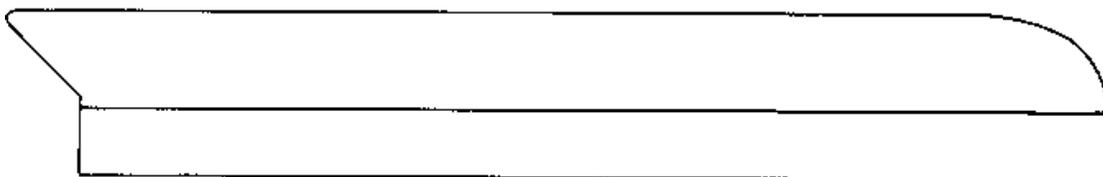
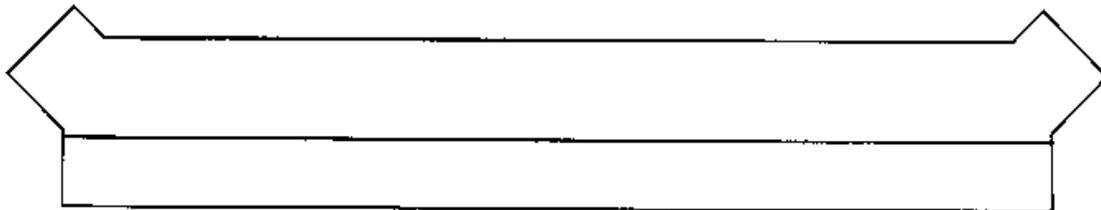
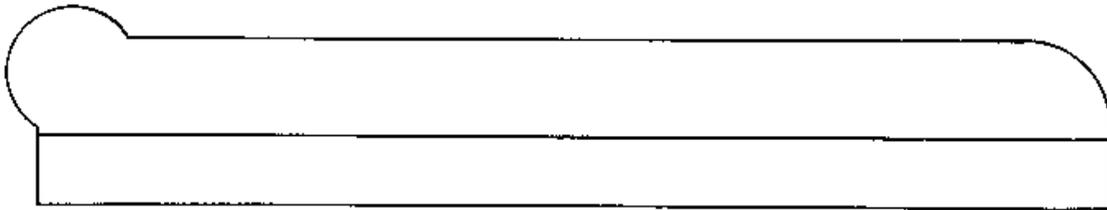


A variety of float bed designs may be made from the basic construction by the use of cut-out contour shapes of wallboard or plywood.

Nail 1" X 2" cross members between contours. Nail braces to these members from 2" X 10" stringers.

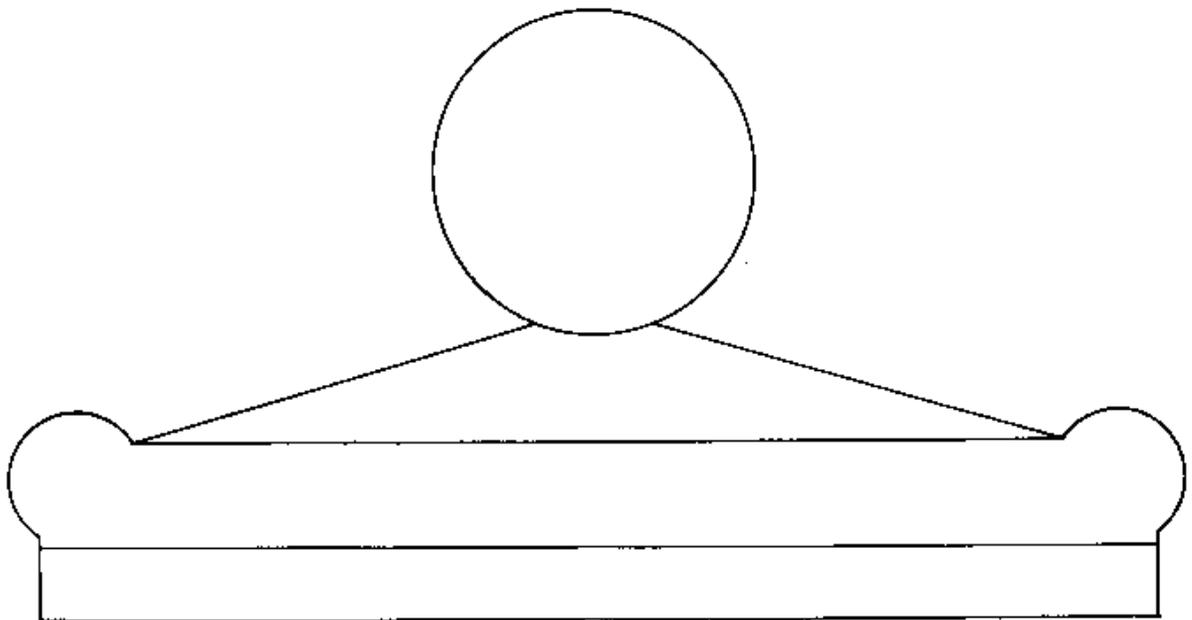
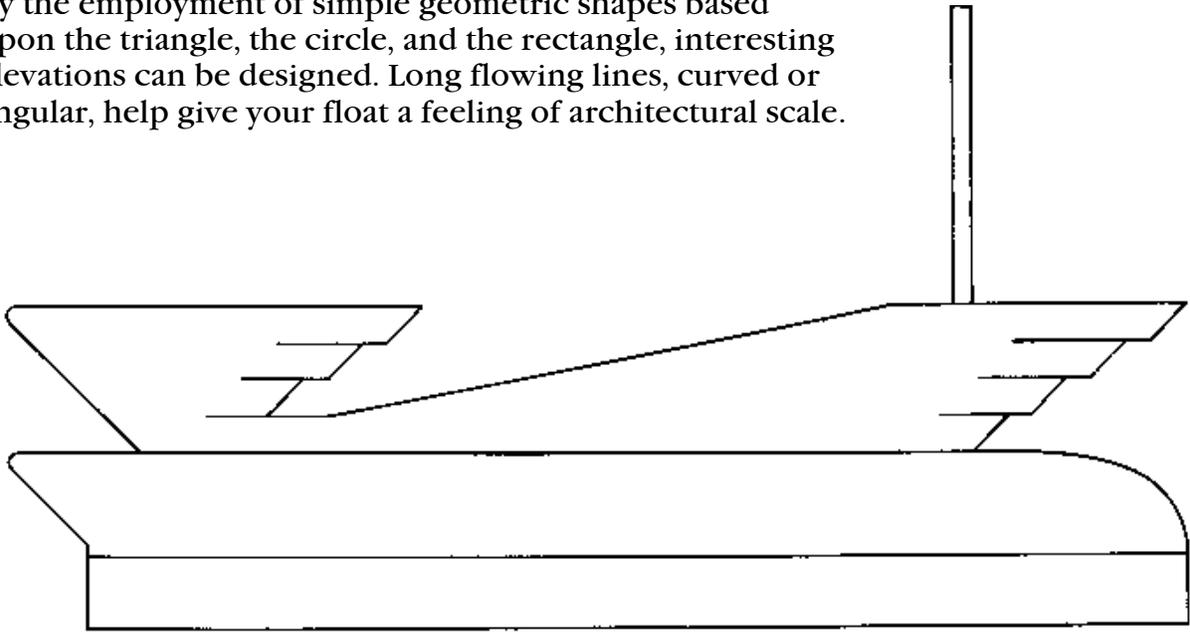


By the use of pliable wallboard attached to wood construction front and rear, you can easily disguise the box-like understructure. Curved or angular surfaces add to the streamlined rhythm of a float.

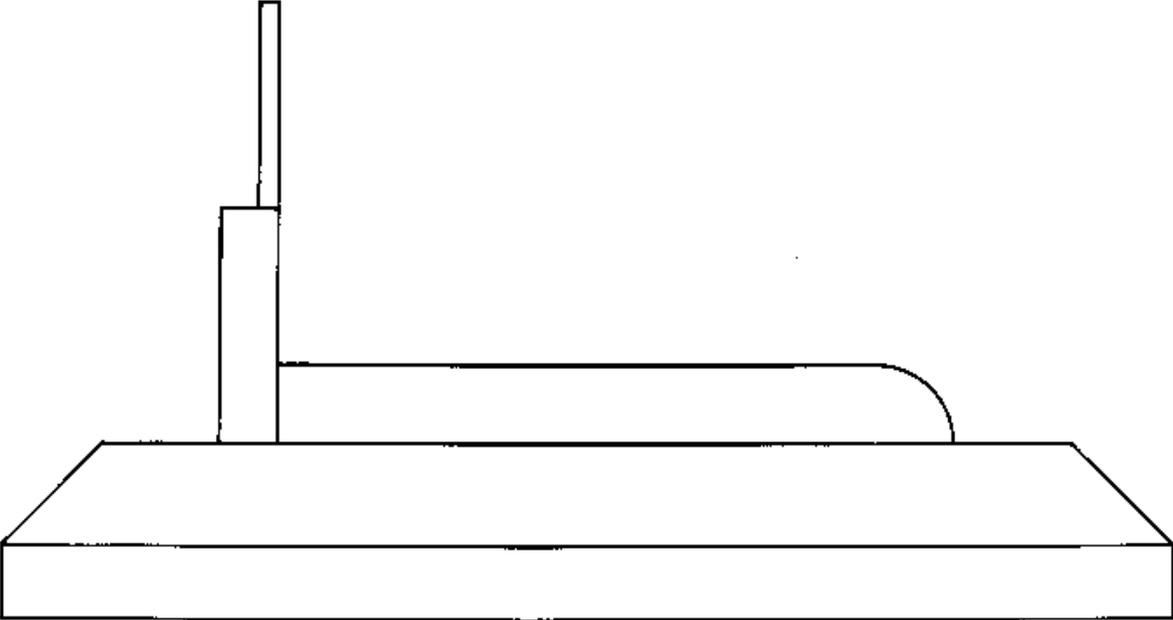
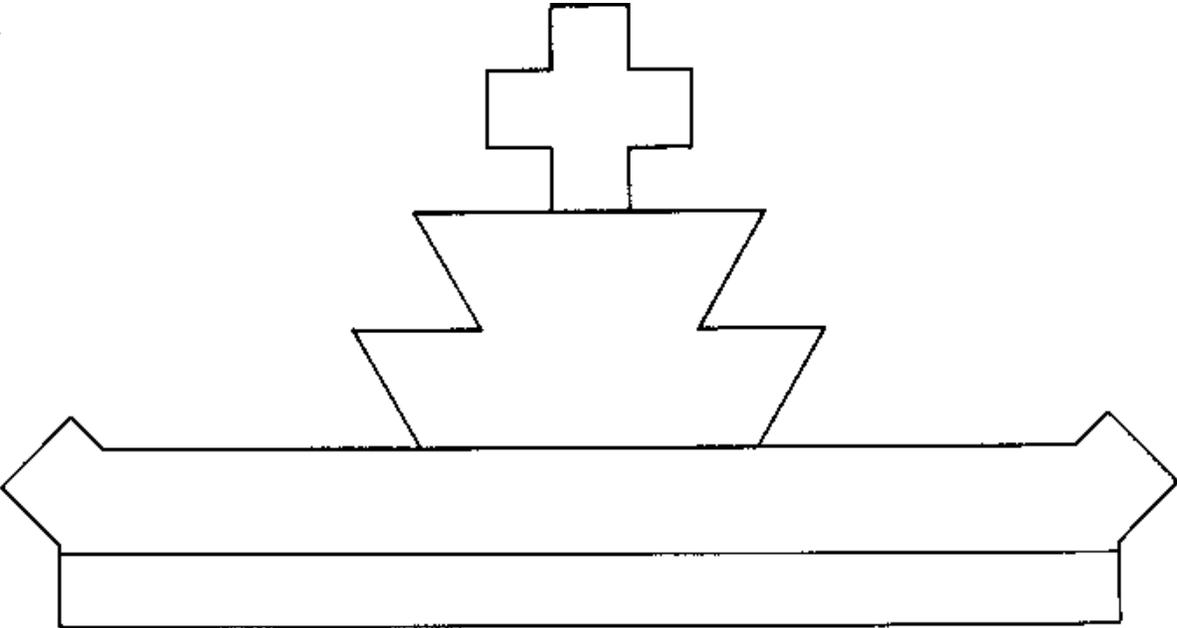


***EXAMPLES OF SUPERSTRUCTURE***

By the employment of simple geometric shapes based upon the triangle, the circle, and the rectangle, interesting elevations can be designed. Long flowing lines, curved or angular, help give your float a feeling of architectural scale.

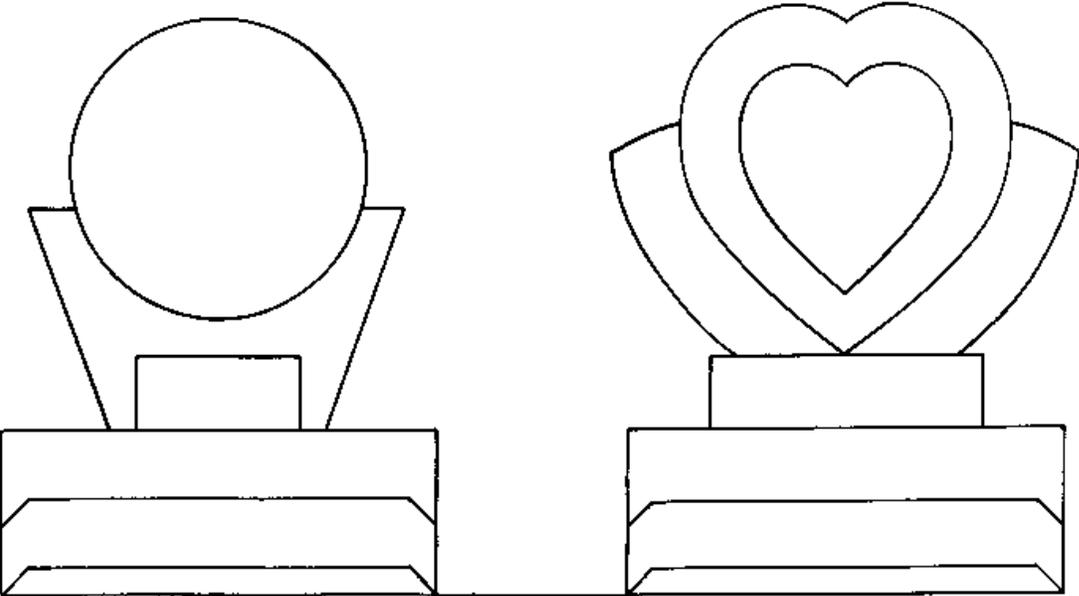
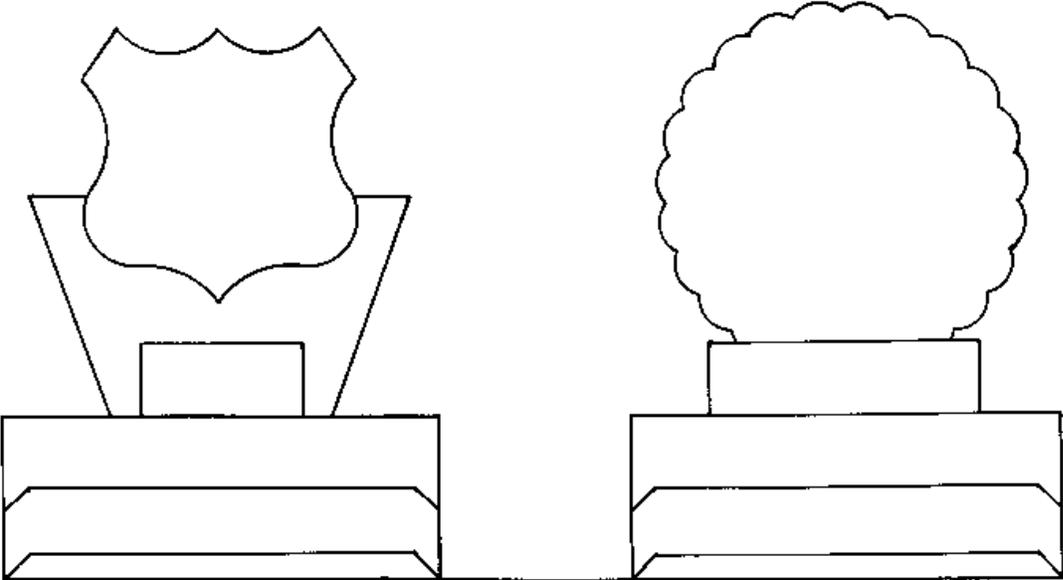


*EXAMPLES OF SUPERSTRUCTURE*

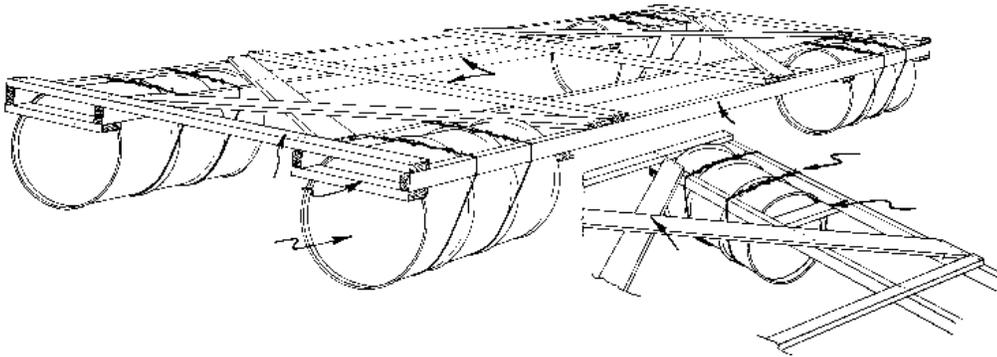


***FLOAT DESIGNS VIEWED FROM THE FRONT***

Parade audiences are curious to see the float next in line. The front elevation must, therefore, be given careful thought. Simple geometric shapes are the basis of many interesting variations.



## ***WATER PARADES: BARGE AND FLOAT CONSTRUCTION***



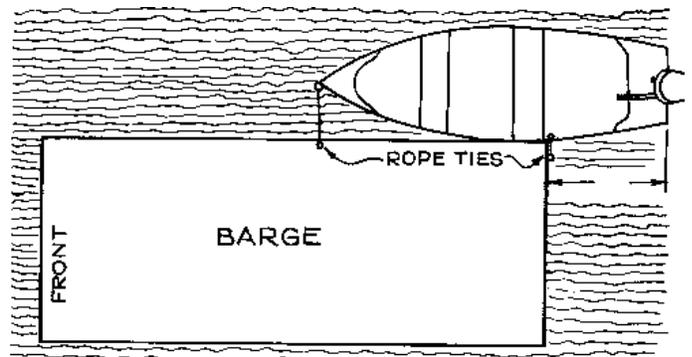
A barge, 8' wide and 20' long, suitable for carrying a float display on water, such as those pictured on this page, can be made with four 50-gallon drums and a wooden framework (Ill. No. 1).

Floats to be displayed in a water parade are constructed in the same manner as for a street parade with two exceptions: the barge (ill. No. 1) replaces the four-wheel trailer and the apron around the float is eliminated entirely.

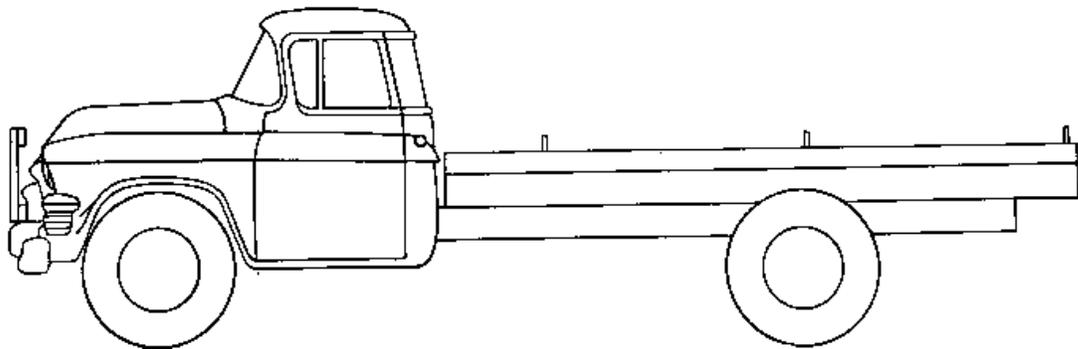
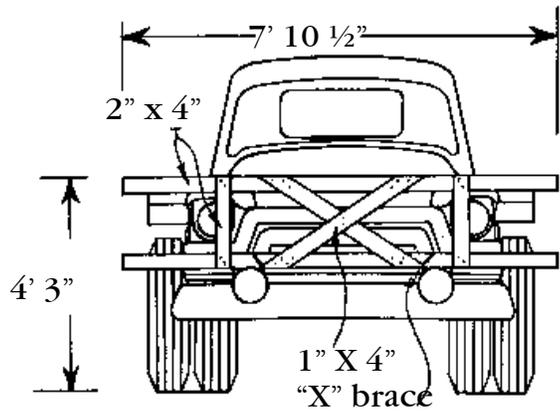
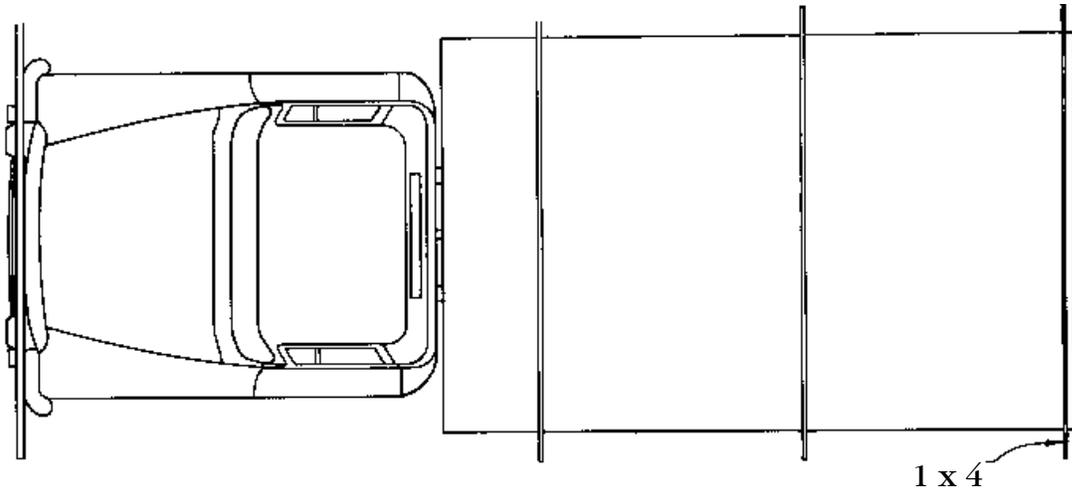
Construction is started by building a flat platform the size of the barge, upon which the frame for the superstructure is built, the same as you would on a trailer platform. After construction, the float can be completely decorated, except for the fringe, and stored until the day it is to be entered in the parade.

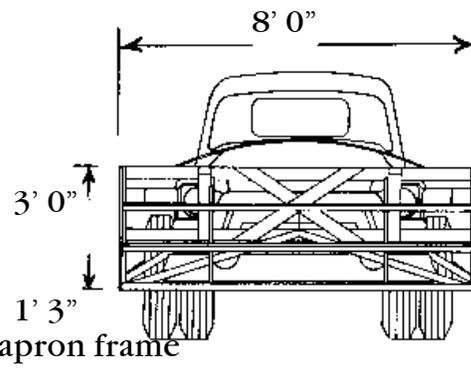
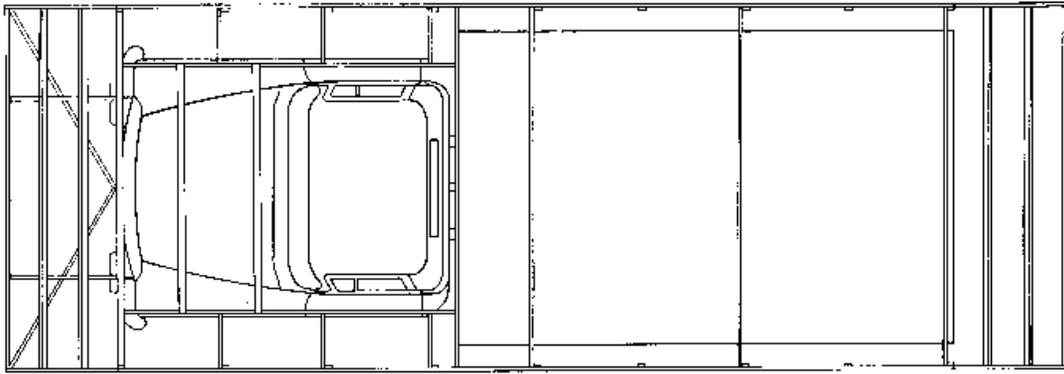
The procedure for assembling a water parade, as outlined by the directors of the "Venetian Water Parade" at Ladysmith, WI, is as follows:

- ★ All barges are placed on the shore near the water.
- ★ The float displays are transported from the storage to the assembly area on large flatbed trucks.
- ★ The floats are transferred off the trucks onto the barges by the crew of assembly men.
- ★ The floats are then fastened securely to the barges with wire and the fringe is stapled around the edges of the float platforms.
- ★ A mobile boom crane, fitted with a durable cable sling that is looped around under each end of the barges, is used to lift the assembled units off from the shore and place them out on the water.
- ★ Each float is then tied to an outboard motor boat (as in ill. No. 2) and taken to the line-up area where it is anchored until parade time.



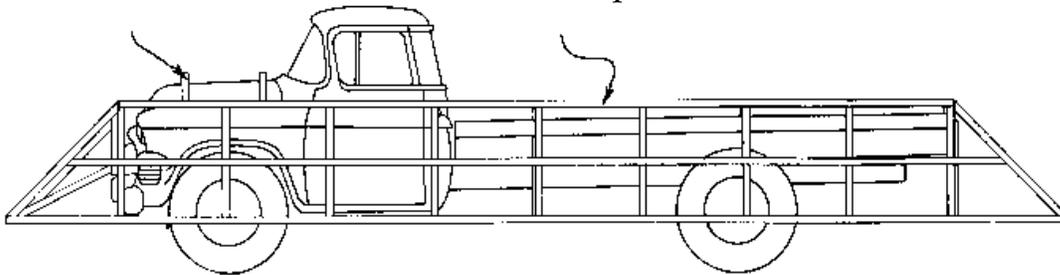
**BASIC CONSTRUCTION OF A FLOAT FRAME FOR A FLAT BED TRUCK**





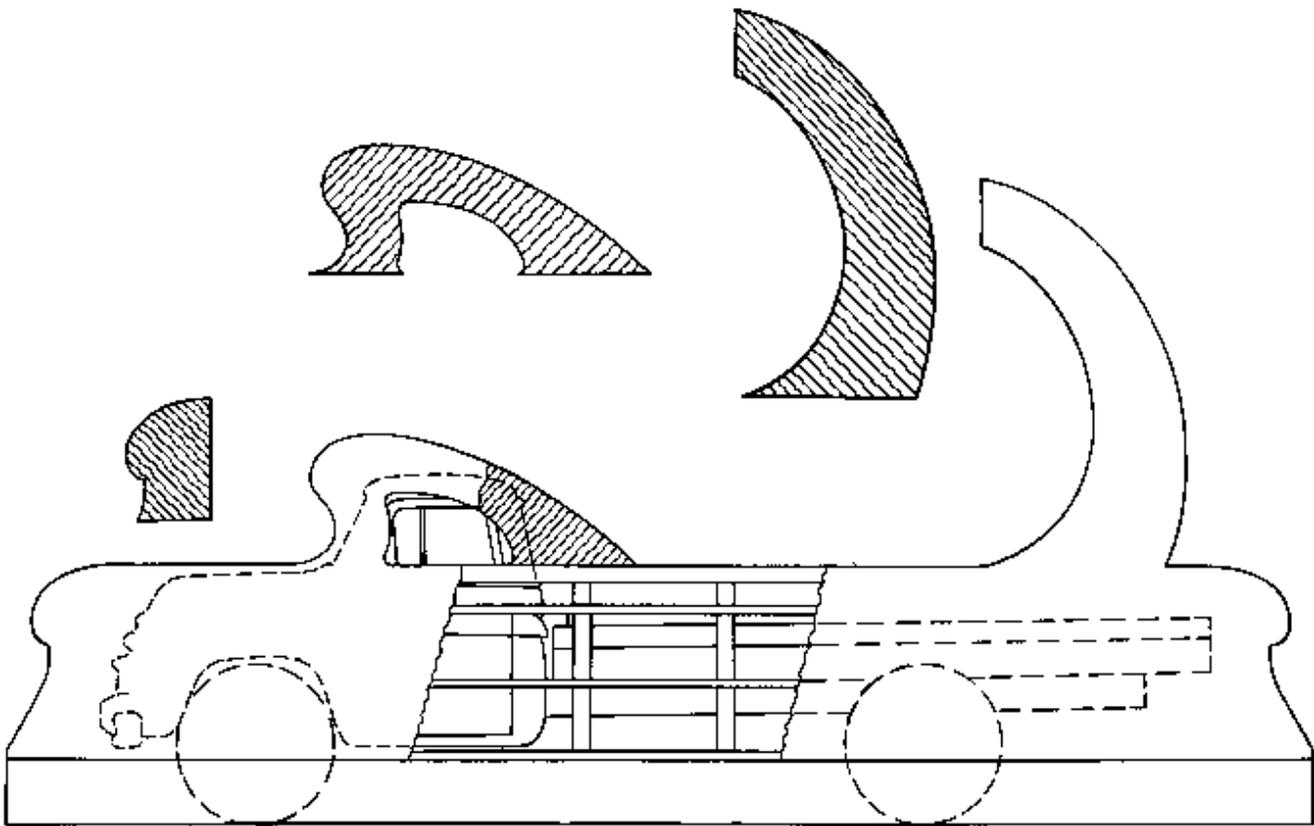
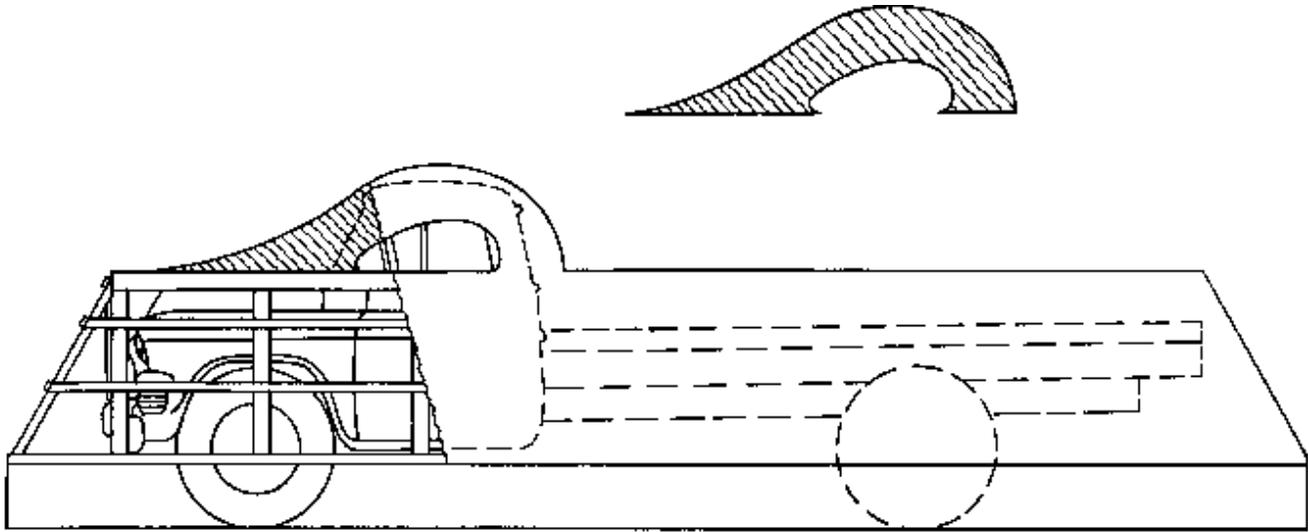
2" lattice

1 x 2 apron frame



## *CAMOUFLAGING THE TRUCK FORM*

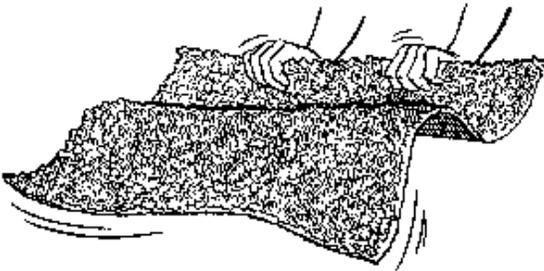
Wallboard cutouts can be used to hide the truck cab and also to produce a sweeping shape at the rear of the platform. Many variations are possible.



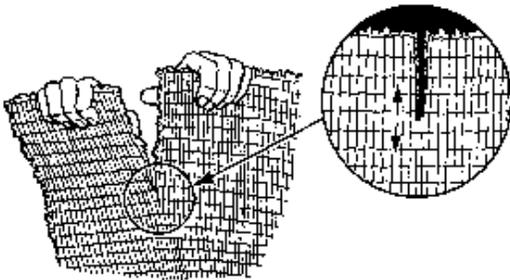
## APPLICATIONS OF FLORAL SHEETING

Floral sheeting, the most widely used of all the float covering materials, is a product especially manufactured for decorating parade floats. This material, made in a variety of colors, has hundreds of tissue floral petals glued on a cloth backing, giving it a thick, soft, fluffy appearance. This material is produced in sheets approximately 1 yard square and can be cut into pieces and joined together again with pins without the seams showing.

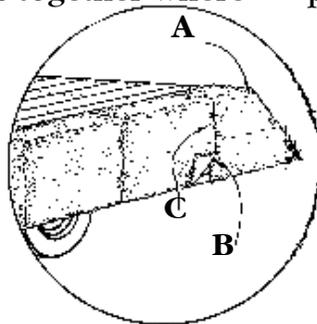
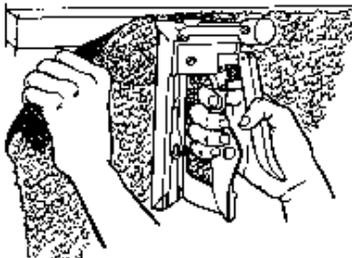
1. After unpacking sheets, “fluff” out petals by shaking, as you would a rug.



2. Floral sheeting may be torn into narrower pieces, tearing down the narrow weave of the cloth backing as illustrated. Use scissors for all other cuts.



3. [A] Starting at the back, staple floral sheets to apron frame.  
[B] Overlap succeeding sheets at least 1” or more.  
[C] Pin overlapping sheets together where material joins over open framework.



4. To pin sheets together, where the under side is inaccessible to punch pin back through the material with your fingers (such as chicken wire forms, etc.), use an ice pick to guide the pin as shown in illustrations A-B-C-D.

A. Push pin through material

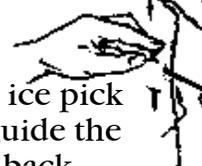


B.



Push ice pick through material

C.



Use ice pick to guide the pin back

D.



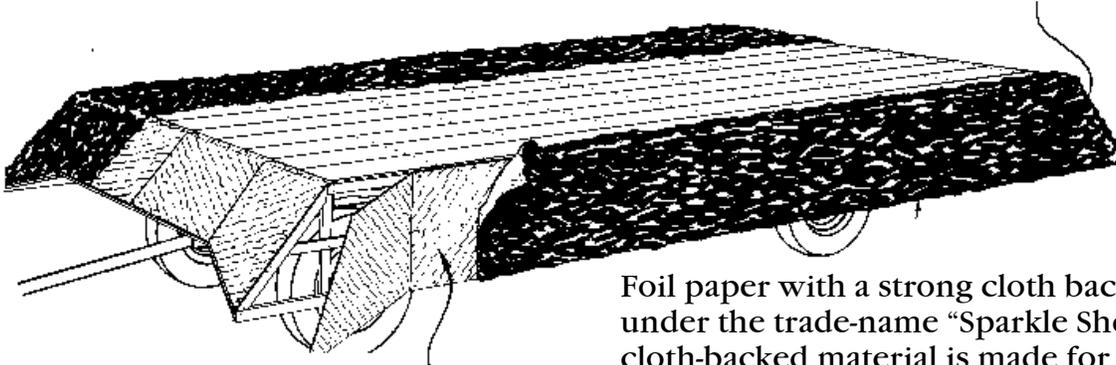
Pin

Chicken wire foam

## FOIL PAPER FOR DECORATING PARADE FLOATS

Foil paper is aluminum foil with a paper backing. This should be applied to solid surfaces such as wallboard, wooden platforms, etc.

After crinkling foil, staple securely to solid surfaces of float.

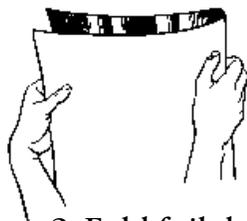


Nail wallboard, boxboard, or plywood over open framework to make a solid surface for stapling on foil paper

Foil paper with a strong cloth backing is produced under the trade-name "Sparkle Sheeting." This cloth-backed material is made for use over open framework, or it may be pinned onto irregular forms such as chicken wire contours.



1. Unroll foil paper



2. Fold foil down length at center but do not crease on the fold.



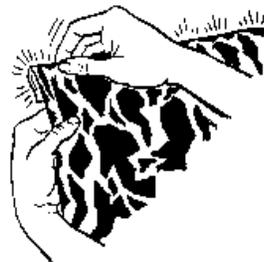
3. Repeat fold down the length of foil paper. Folded length should now be about 6½" wide.



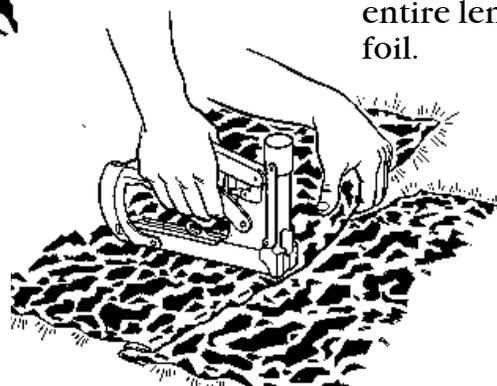
4. Using both hands, crush paper together down the entire length of foil.



5. Open the folds and lightly smooth out the foil paper. It will then have a crinkly, sparkling appearance.



6. Fold under the edges along the length of foil paper.



7. Staple the edges down and then staple at random over the entire surface of the foil paper to hold it down securely.

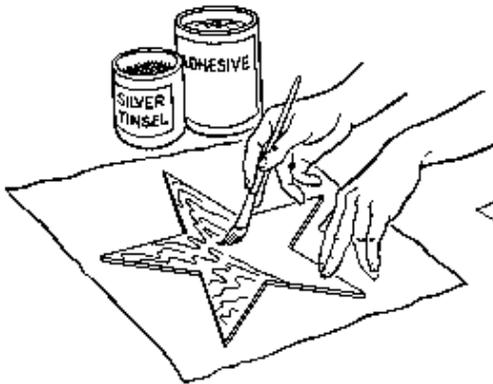
## ***TINSEL FLITTER AND DIAMOND DUST***

Many effects may be achieved with these sparkling products. Gold, silver, or colored tinsel flitter gives a glittering, diamond-sparkle to stars, cut-out letters, figures, etc. A beautiful, snowy, sparkling appearance may be had by using white diamond dust over white or light-colored paints.

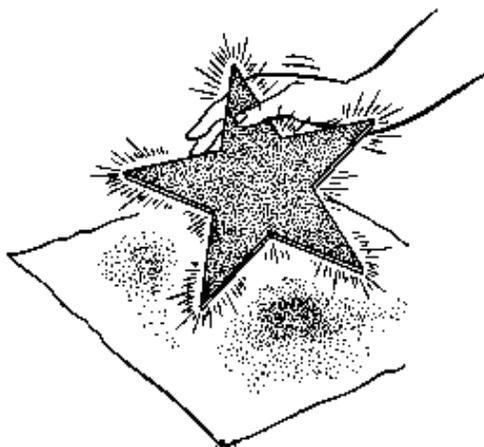
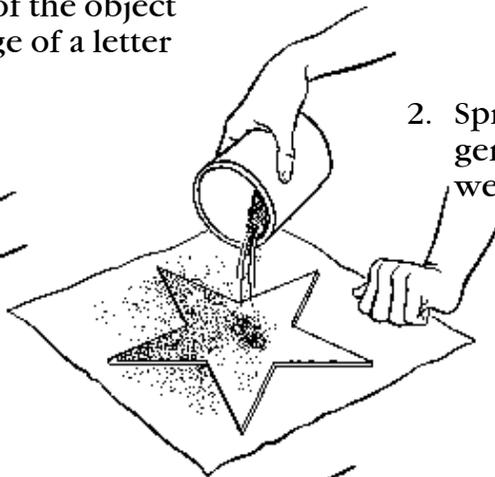
**Tinsel flitter and diamond dust may be applied with one of the following adhesives:**

- ★ White latex adhesive
- ★ Shellac
- ★ Glue
- ★ Waterglass
- ★ Paint

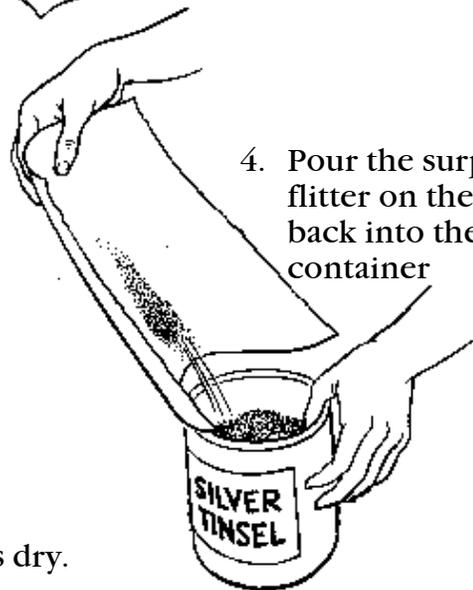
1. Place object to be flittered on a large piece of paper. Apply a coat of adhesive on the portion of the object to be flittered, such as on the outline edge of a letter or over the entire face of a cut-out star.



2. Sprinkle the flitter generously into the wet adhesive.



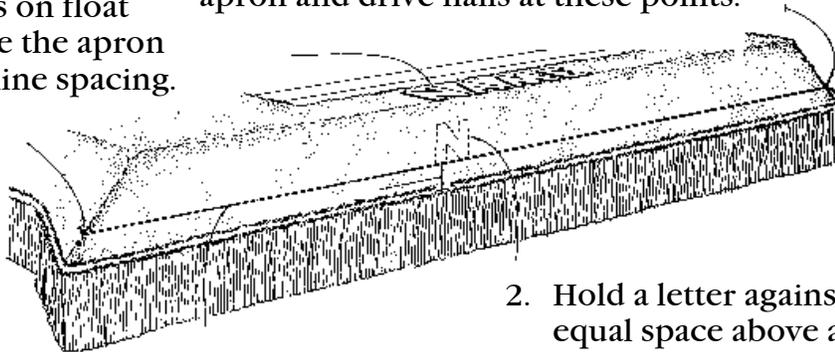
3. Lift the object and shake off the surplus flitter onto the paper. Lay object aside until adhesive is dry.



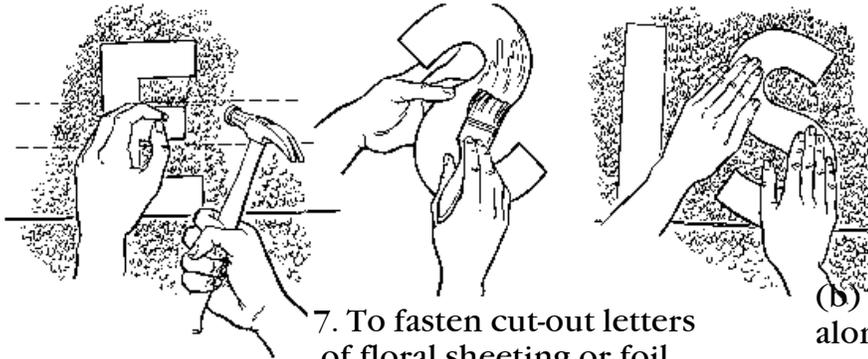
4. Pour the surplus flitter on the paper back into the container

## ***THE APPLICATION OF CUT-OUT LETTERS TO FLOAT APRON***

1. Arrange letters on float platform above the apron side to determine spacing.
4. Mark this measurement at each end of apron and drive nails at these points.

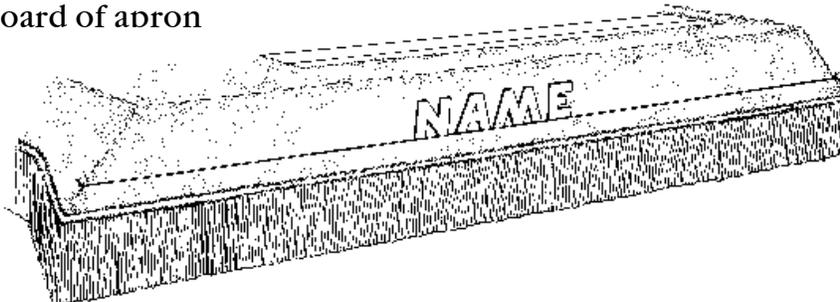


2. Hold a letter against apron side so there is equal space above and below it.
3. Measure space between lower apron and board and bottom of letter.
5. Tie a string tightly between nails. This is the lettering guide line.



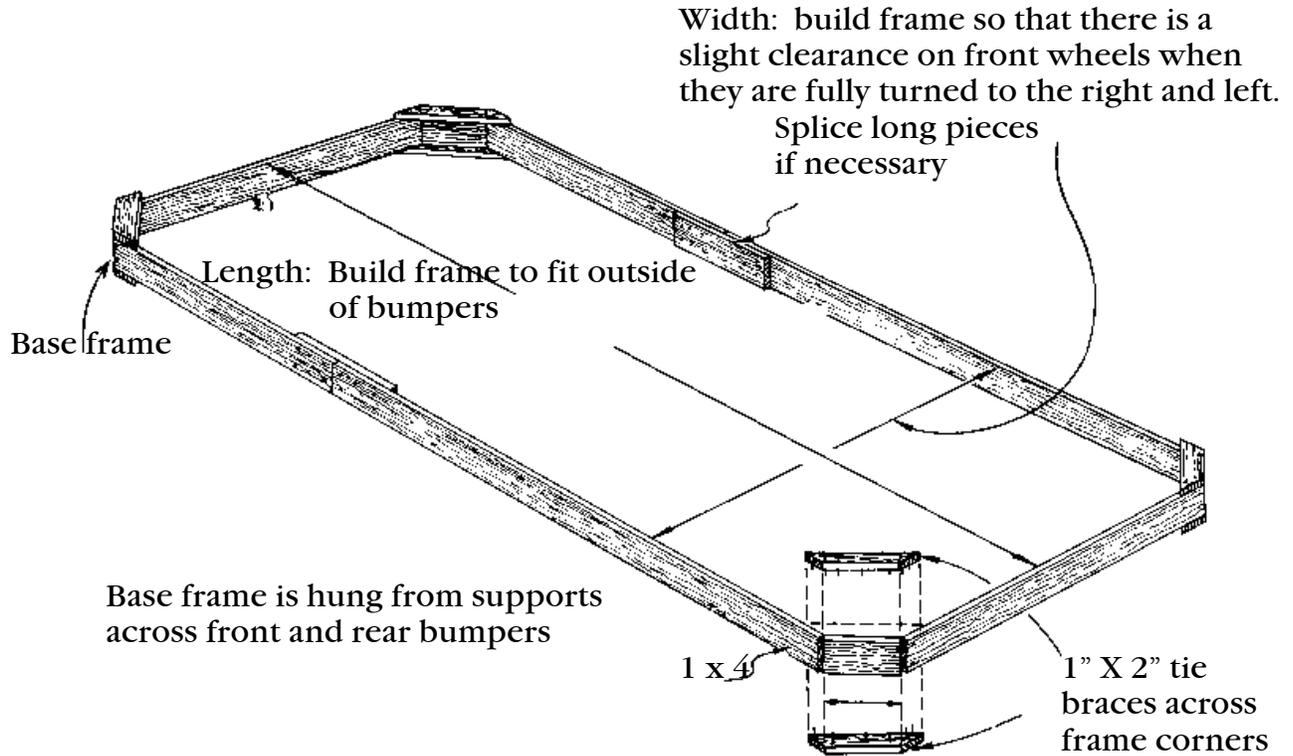
6. To fasten cut-out wallboard letters, place bottom of letter along guide line string and nail to center board of apron

7. To fasten cut-out letters of floral sheeting or foil paper:  
(a) Apply a coat of adhesive to back of letter.
- (b) Place bottom of letter along guide line string and press firmly over entire face of letter until it adheres to float.



8. After all letters have been fastened to float, remove guide line string and pull nails.

**FLORAL CAR DECORATION**

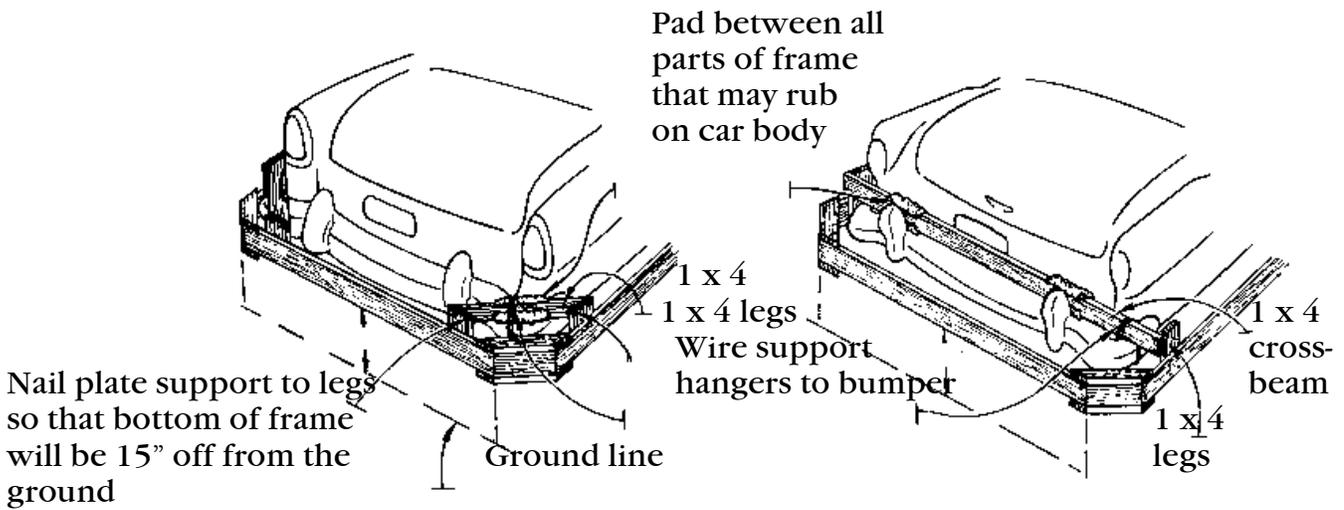


Base frame is hung from supports across front and rear bumpers

Hang base frame from bumpers as shown in illustration [A] or [B].

[A] For cars with bumpers close to body

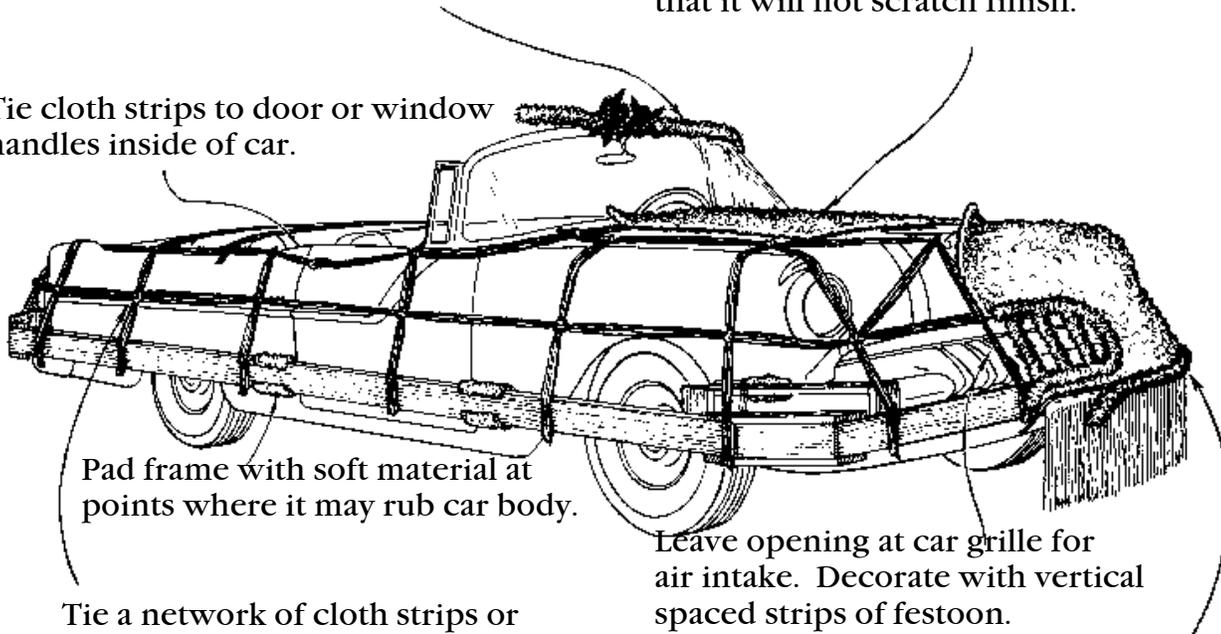
[B] For cars with bumpers extended out from body



Fasten flowers and festoon trim on windshield with tape and string.

Starting at top of car, pin floral sheeting squares together to form blanket over body. Pin sheets to cloth strips frequently to hold blanket to car. Note: Always push pin-point back to outside so that it will not scratch finish.

Tie cloth strips to door or window handles inside of car.



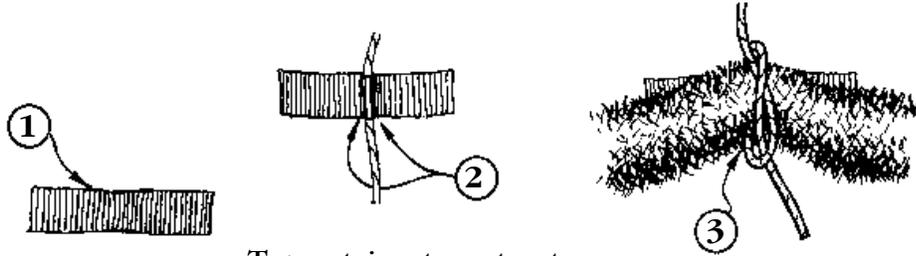
Pad frame with soft material at points where it may rub car body.

Leave opening at car grille for air intake. Decorate with vertical spaced strips of festoon.

Tie a network of cloth strips or cotton twill tape from base frame over body of car.

Staple floral sheeting and fringe to base frame. Trim fringe tape heading with festoon.

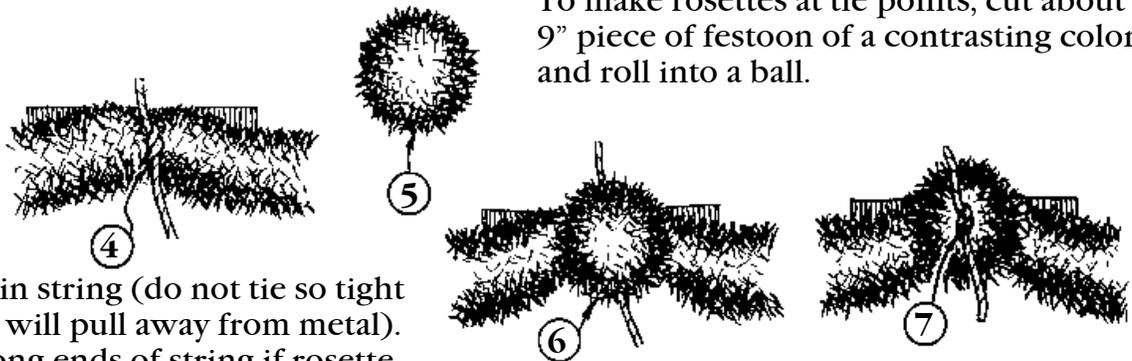
## HOW TO FASTEN FESTOON DECORATION TO AUTOMOBILE



1  
Cut pieces of string about 12" long. Cut pieces of decorator's tape about 3" long.

2  
Tape string to auto at points where festoon is to be fastened. Press tape firmly down each side of piece of string.

3  
Place festoon over tape and loop the string around it.

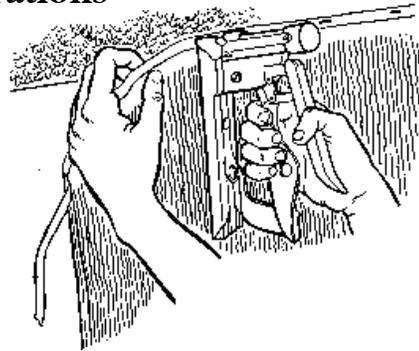


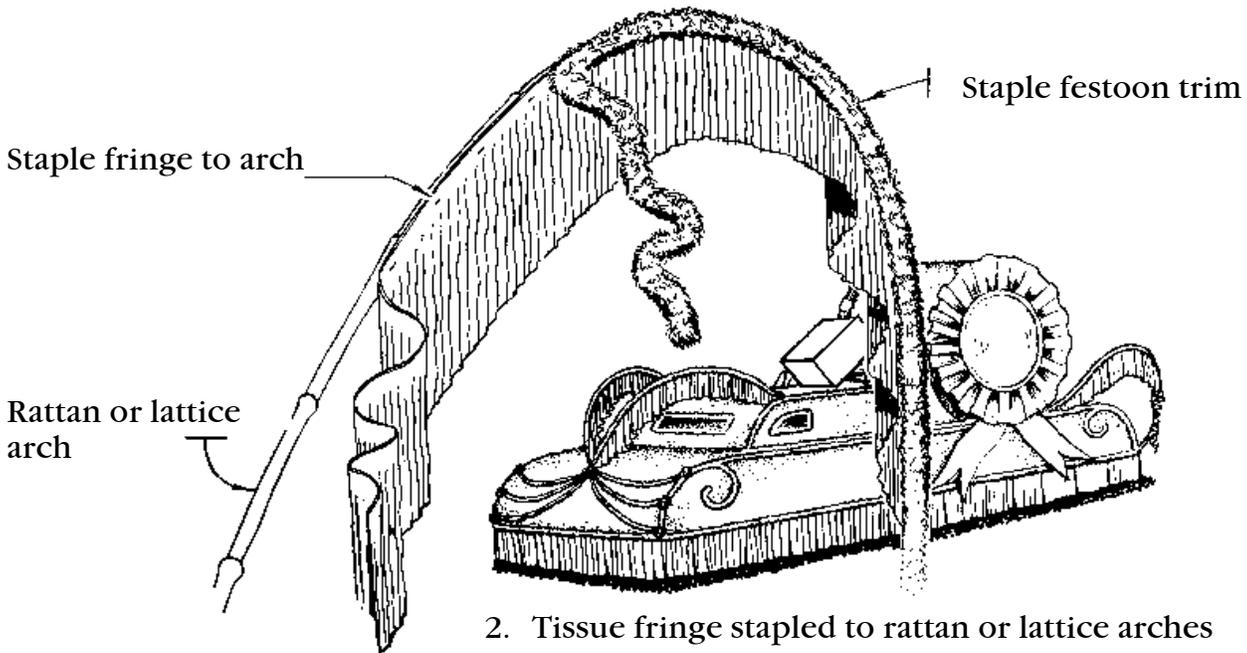
4  
Tie knot in string (do not tie so tight that tape will pull away from metal). Cut off long ends of string if rosette is not going to be used.

5  
To make rosettes at tie points, cut about a 9" piece of festoon of a contrasting color and roll into a ball.

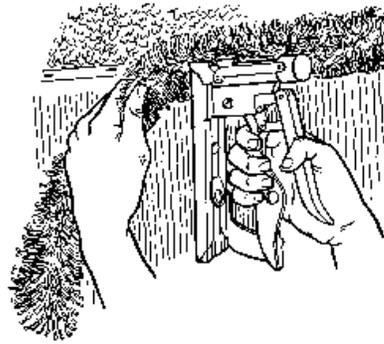
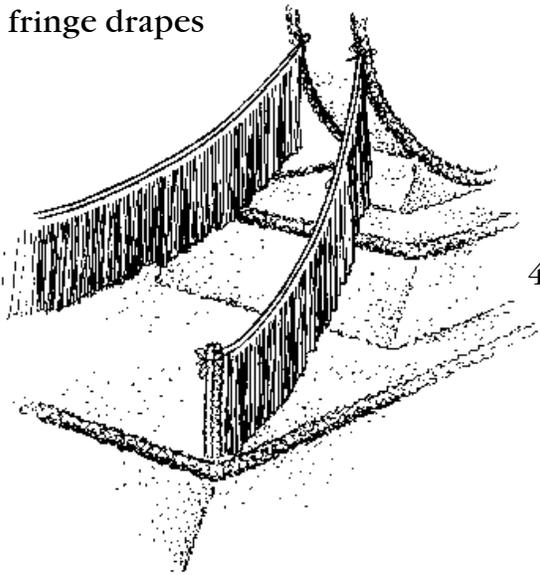
## Trimming Materials for Floats and Car Decorations

1. Tissue fringe is used basically as a drop between the apron frame and the ground to hide the wheels and give the display a "floating" appearance. It may be used, however, as an attractive decoration in many other ways, such as the examples in illustrations 2 and 3.



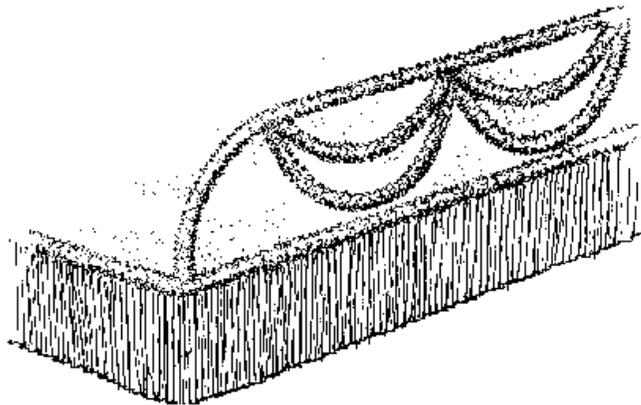


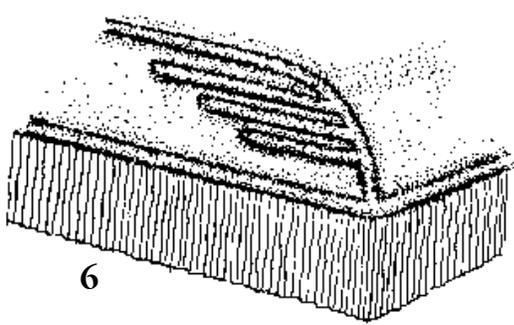
3. Tissue fringe drapes



4. Tissue festoon roping, the most versatile float trimming material, may be stapled around apron base to hide the fringe tape heading, or be used to achieve several other decorating effects, some of which are shown in illustrations 5-6-7-8.

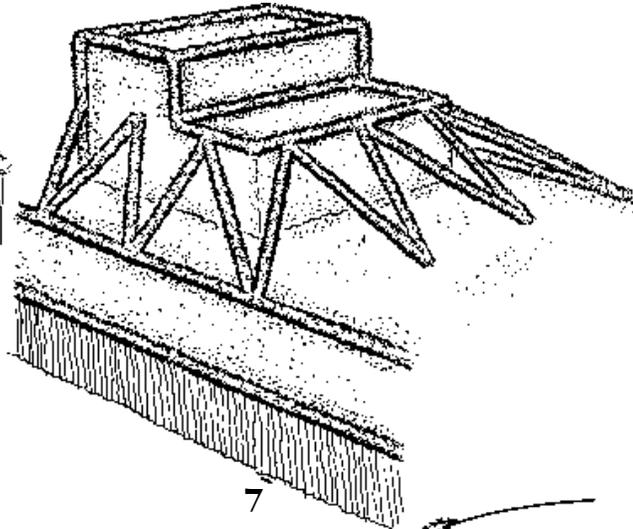
5. Festoon draped in a double row.





6

6. Modernistic lines of festoon



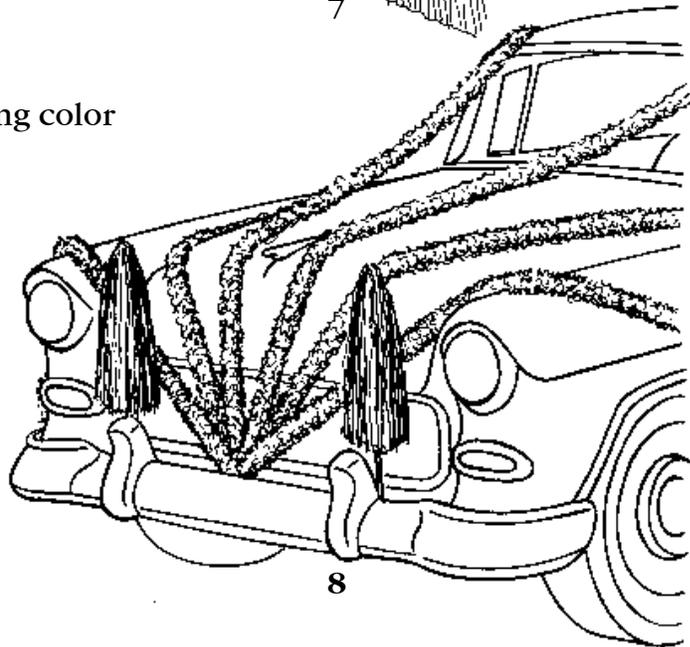
7

7. Festoon pattern trim

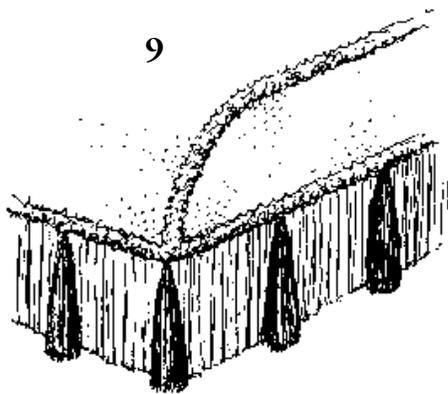
8. Car decoration

9. Tissue tassels of a contrasting color applied over fringe

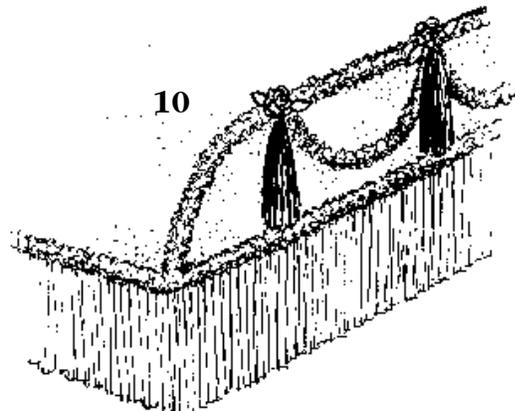
10. Tissue tassels combined with flower rosettes and festoon drapes.



8

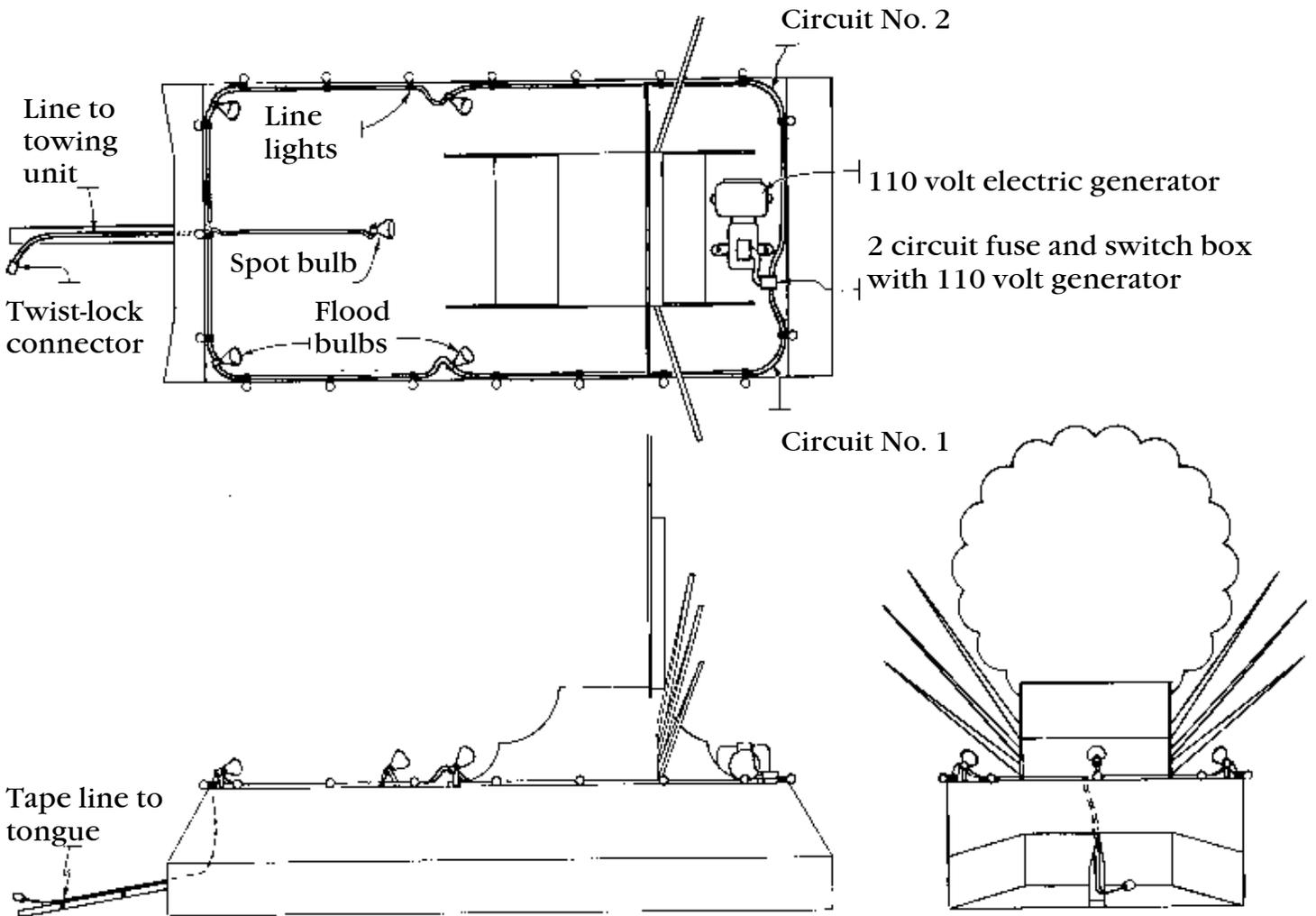


9



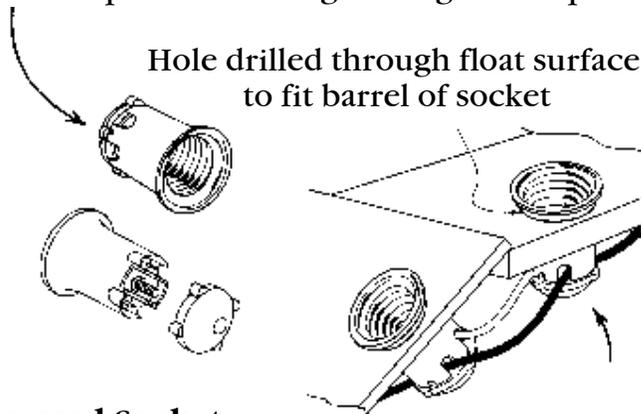
10

## BASIC WIRING LAYOUT USING 110 VOLT GENERATOR

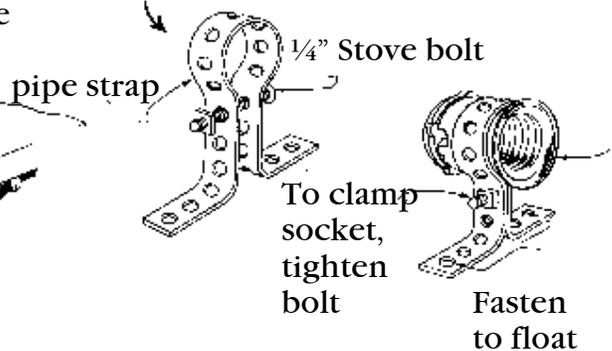


### Pin type Bakelite sockets

This pin type socket, widely used for float wiring, is easily connected without stripping insulation by placing wires in pin slots and tightening base cap.



An inexpensive flood light bracket can be made with perforated pipe strap, a pin type socket, and a 1/4" bolt. After mounting, the bracket is easily bent to direct the flood bulb to the desired angle.

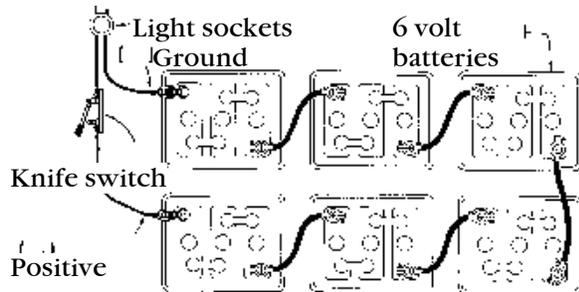


### Recessed Sockets

This method of mounting allows wiring to be under the framework

## Diagram of Battery Connections for 36-Volt Lighting System

When a 110 volt portable electric generator is not available for light power to illuminate a parade float, power for smaller voltage systems may be supplied with batteries. It should be taken into consideration, however, when planning your lighting with battery power, that the bulbs required (25-watt and 50-watt - medium base) for systems from 6 to 36 volts, may not be available locally and will have to be ordered from an out-of-town supplier. The reflector type spot and flood bulbs used in the 110 volt systems are not



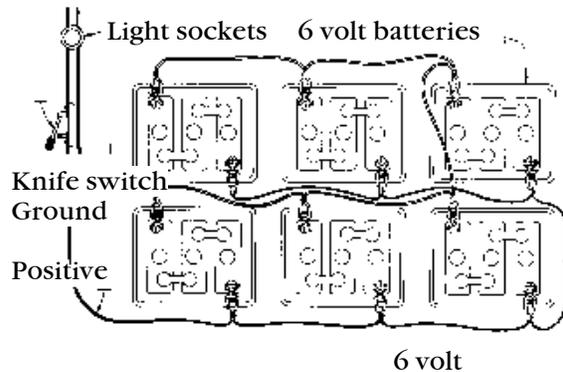
manufactured in the smaller voltages. Use the attachable type reflector made to fit over an ordinary light bulb, with battery powered systems. Use six batteries of 6-volts each connected in series.

Use 30 volt bulbs (25 watts each for general illumination, 50 watts each with attachable reflectors)

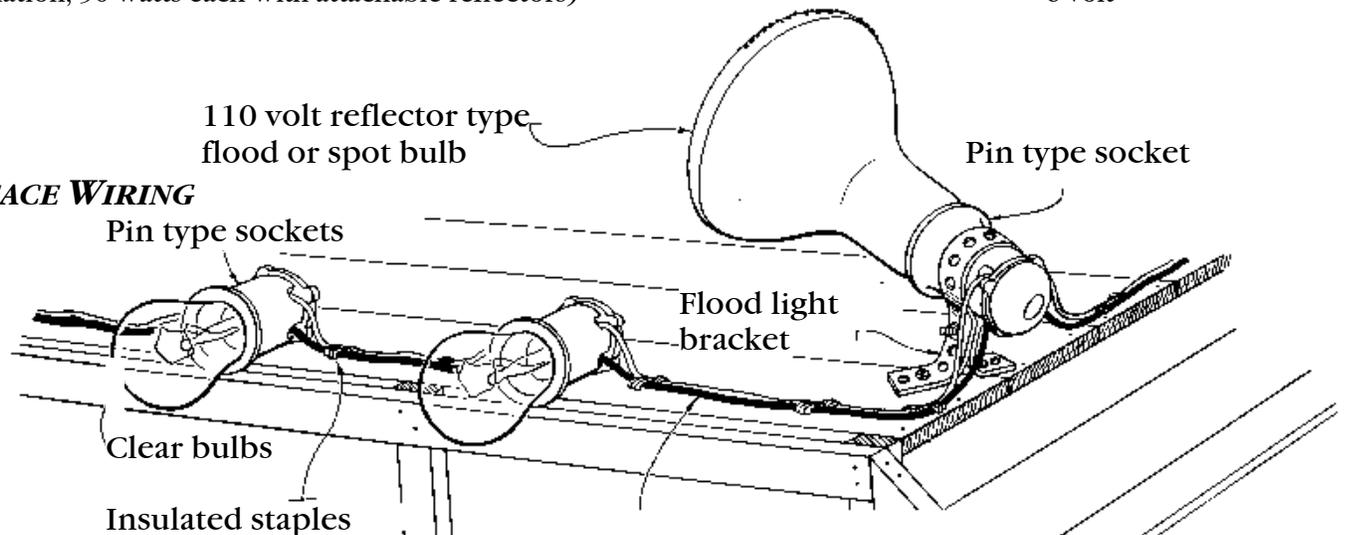
Total lighting should not exceed a maximum of 600 watts, which is the equivalent of twenty-four 25-watt bulbs or sixteen 25-watt and four 50-watt bulbs. This system should give illumination for approximately 2 hours, starting with batteries at full charge.

## Diagram of Battery Connections for 6-volt Lighting System

Use six batteries of 6 volts each connected in parallel. Use 6 volt bulbs (25 watts each for general illumination, 50 watts each with attachable reflectors). Total lighting should not exceed a maximum of 600 watts, which is the equivalent of twenty-four 25-watt bulbs or sixteen 25-watt and four 50-watt bulbs. This system should give approximately 2 hours of illumination, starting with the batteries at full charge.



## ***SURFACE WIRING***



Extreme care should be taken when applying decorating material over surface wiring to prevent driving a staple into the wires. Take extra caution when applying foil paper because it is a good conductor of electricity.

## EXAMPLES OF PARADE FLOAT DECORATING MATERIALS



Fringe adds a bright festive atmosphere to any event. Made of standard wet look Vinyl, fringe is the perfect trimming for any occasion.



Festooning is the economical way to decorate. It's method of manufacture also allows for more color flexibility than twist because it can combine five colors for your theme. This combination tissue/vinyl product is a great way to decorate large areas inexpensively.



Plastic Decorating Pomps. Do you like that old fashioned look, but need weather resistant material?  
Our Plastic Pomps come in a wide variety of standard and metallic colors



Vinyl Floral Sheetting is made of durable flame-resistant vinyl and comes in a multitude of rainbow colors



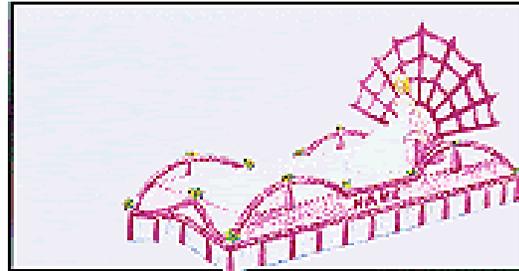
Premium metallic Sheetting is made of durable flame-resistant vinyl.

# Examples of Parade Float Kits

F504 7' x 21'



F150A 7' x 16'



F503 7' x 22'



F169 7' x 16'



F710 7' x 20'



F509 8' x 18½'



F184 7' x 21'



F170 7' x 17'



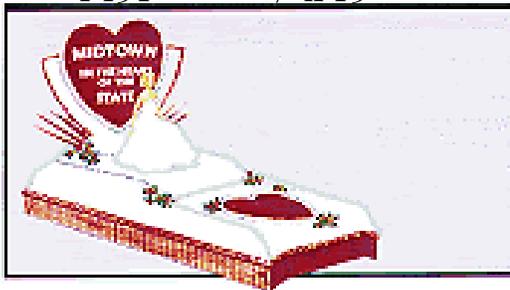
F602 7' x 18½'



F436 8' x 16'



F451 7' x 15'



F618 7' x 20'



F300A 7' x 16'



F316 7' x 17'



F310 7' x 18'



F308 7' x 18'

