



Up and Down Theater

By Harry Walton



BROUGHT back by television, puppetry is making a hit with the young in heart of all ages, and the little dolls are becoming popular toys. But they're more fun if they have a stage on which to strut.

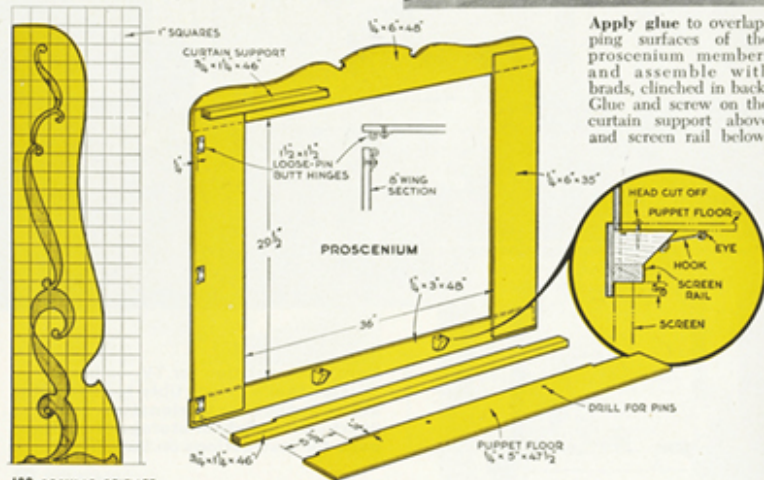
Build a puppet theater for the children, and you'll soon find yourself busy with it. In fact, this can be a whole family's hobby. Dad can make sets and props. Mother and sister can be wardrobe mistress and make-up artist. Brother can experiment with lighting. And everybody can take one or more voices in the cast. Plays can be found in most public libraries. Your audience? Just call all kids.

A combination theater. Once bitten by the hobby, you'll probably want to use both puppets and marionettes. This theater can be converted from one kind of show to the other in three minutes.

Since puppets fit over the hand and are worked from beneath, the stage stands atop a three-sided screen that conceals the puppeteer, who kneels or sits on a stool behind it. Marionettes are manipulated by strings from above. So for marionette shows the



Apply glue to overlapping surfaces of the proscenium members and assemble with brads, clinched in back. Glue and screw on the curtain support above and screen rail below.



stage goes on the floor or on low blocks, its wings opened to support the screen on top. The opened wings permit side entrances for the players, who walk on like live actors. You can build the theater for puppets now, and add the marionette stage floor any time later.

Although big enough for professional use, being 4' wide and 7' high, the theater knocks down into "flats" for storage, and can be transported by automobile.

Pick your materials. All the parts of the puppet stage can be cut from a 4' by 8' panel of 3/4" plywood, which is ideal because it's comparatively stiff. Cheaper material such as composition board or even heavy cardboard can be used for the stage wings if stiffening cleats are added.

You'll also need about 60' of 3/4" by 1 1/2" (nominally 1" by 2") stock for the screen, cleats, and incidentals. The marionette floor calls for an extra 28" by 48" panel and two 5" by 35" legs, all 3/4" sheet.

Theater front. The proscenium, as it's called, is a frame built up of four pieces of 3/4" plywood. You can cut the top straight across and depend upon painting or strips of half-round molding for ornamentation, or saw it to a fancy curve as in the drawing.

The stage wings. Each of these consists of two pieces, hinged together. Glue and screw battens along the adjacent edges to stiffen the wings vertically and provide anchorage for the hinge screws.

Fasten horizontal battens 3/4" from the bottom edges of the 20" wide wing sections, using small flathead wood screws and glue. Cut 5/16" by 1" notches in the top of both wing sections for backdrops and scenery. Your various sets can be painted on cardboard, the upper edges being stapled to battens that fit these notches.

A narrow floor fits between the front portions of the wings, as shown in the pictures.

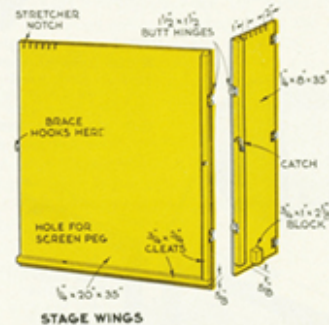
The screen. Cut all 12 frame members to full length first. Then saw half-lap joints at each corner. Assemble with glue and two wood screws at each joint. Check for squareness by measuring the diagonals. Judicious pressure on the corners before the glue hardens will square up a frame if it's slightly out of true. The diagonal braces in the big frame can be glued and toenailed.

Hinge the three frames, as in the drawing, to open all the way outward. Loose-pin butts will let you take the screen apart for storage.

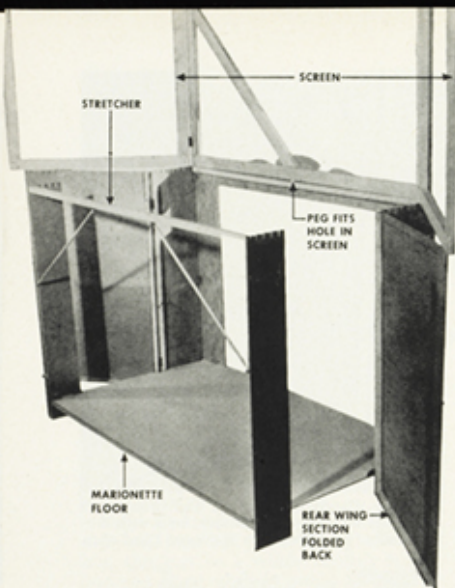
Cover the screen panels (after painting



For easy disassembly, wings and proscenium are joined with loose-pin hinges, held with flat-head bolts (countersunk in the wood) and nuts.



Insert puppet floor, which is a 5" shelf. Holding it in place, drill two holes through it into the wooden blocks. Turn in wood screws and cut off heads, leaving short pins. Hold shelf with hooks to front and wing blocks.



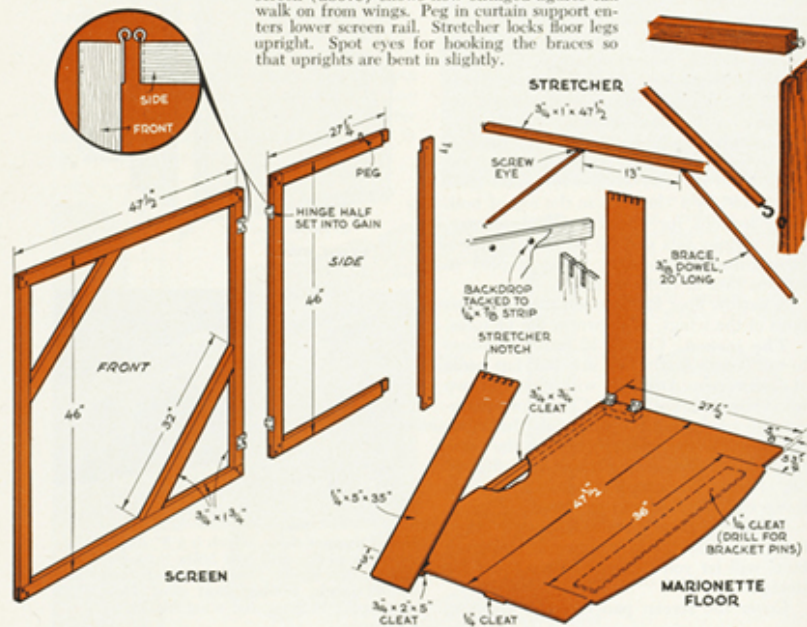
the frames) with standard 28" by 44" poster board. This comes in a variety of colors, saving you the trouble of painting large areas. Tack or staple the board on, and cover the edges with molding or linoleum binding.

Mounting the stage. With the sides attached to the proscenium and the puppet floor in place, have somebody help you place the theater on top of the screen. Although light, the unit is unwieldy to handle alone.

For the pegs that hold the stage on the screen, bore $\frac{3}{8}$ " holes through the horizontal wing cleats into the upper screen members. Glue $\frac{3}{8}$ " dowel pegs into the screen rails and open out the holes in the wing cleats to take these alignment pegs easily. Mount the stretcher and its braces, and you're ready for a puppet show.

Marionette floor. To let the stringed folk walk the boards, you need a floor the full depth of the stage. This may be plywood or, if well cleated, fiberboard. Cut a

Trial setup of marionette floor with uncovered screen (above) shows how stringed figures can walk on from wings. Peg in curtain support enters lower screen rail. Stretcher locks floor legs upright. Spot eyes for hooking the braces so that uprights are bent in slightly.



Curtain slides on a steel rod bent at each end, inserted in holes and run through a screw eye at the center. It can also be made in two halves, from coat-hanger wire. Cord runs over a double pulley at left, looping around a single one at the right.

curve on the front edge, which projects beyond the proscenium opening. Drill two holes in a piece of $\frac{3}{8}$ " plywood at the same spacing as the ones in the puppet floor. Glue this piece to the underside of the stage to engage the pins on the floor blocks. Also glue a cleat $\frac{3}{8}$ " thick under the floor at each side where it rests on the wing blocks.

Glue and screw cleats along the back of the floor as shown in the drawing. Screw hinges to the short cleats and with bolts and nuts attach the two plywood legs. When opened and locked with the stretcher and its braces, they hold the back of the marionette floor level with the front.

If you're going to do much marionette work, fasten a board 3" wide on top of the stretcher for a more adequate arm rest. Let this rest on top of the legs, leaving the notches open for the backdrop battens.

Screen goes above. For marionette shows, glue a peg in the middle of the curtain support behind the proscenium and

bore a hole in the lower rail of the middle screen panel to receive it. Hinge back the rear sections of the wings about 45°, and open the side screen panels to rest on them. Mount hooks, catches, or turn buttons to secure the open wing sections to the lower rails of the screen.

Curtain time. That breathless moment when the curtain goes back is pure magic—provided the curtain behaves. The material must have enough body to hang in smooth folds. Cut two pieces, each 10" wider than half the proscenium opening. Hem the cut edges, and sew six to eight small rings or S hooks to the top of each half. Wax a strong cord and rig it as in the drawing, tying the ends to the middle rings with the curtain drawn shut. Where the cord changes direction at the ends, run it through screw eyes or over small pulleys. The photo above shows small lathe-turned plastic pulleys that revolve on wood screws. Miniature pulleys sold for ship models will serve nicely. END

Grocery-Box Puppet Theater Built in a Jiffy

The kids will love this quickie "all their own" theater, which you can make in an hour from a cardboard carton. The bigger the box the better; 14" by 15" by 20" is the minimum size.

Cut the proscenium opening in one side of the carton. Cut the flap on that side to 3" in width, fold it in, and tack it to a batten about 2" longer than the box. Fold the opposite flap out parallel to its side and tack it to a second batten. Tack an old sheet onto the front board and place the theater across the backs of two chairs. The puppeteer kneels or sits on a low stool.

If you want a curtain, tack a piece of wood over the proscenium inside the box. Drive two spools over the end of a length of dowel, tack the curtain to the proscenium board and the dowel, and rig a control cord as shown to roll the curtain up.

