

# 19" Emily, Jenny, & Portrait Dolls

By Dianna Effner

## Body Pattern and Construction

### ARMATURE CONSTRUCTION

#### Materials

- 42" of number 6 gauge TW Stranded cable (can be purchased at some hardware stores and electrical supply stores)
- Plastic drinking straw (cut in thirds)
- Paper toweling
- Fired and painted porcelain arms and legs
- Durham's Rock Hard Putty
- Long blunt tool (chop stick etc.)
- Exacto Knife or other sharp blade for stripping plastic casing from cable
- Wire Cutters

### Construction

Cut two 21" lengths of six gauge wire. Strip the casing from a six inch section as shown. (figure 1)

Twist the two lengths together as shown to form the central "spine" of the armature. (figure 2)

Bend limbs at "shoulders" and at "hips" checking the shape against the diagram provided (see insert). Trim if necessary.

Leaving armature over diagram, slip fired and blushed arms and legs into position. Check against diagram to see if wires are cut to proper length. If any part is too long, set aside the porcelain piece and trim away some of the wire. Check against the diagram until everything is in correct alignment and proportion.

Tear paper toweling into one-half inch strips. Set porcelain arms aside. With armature and legs in standing position (figure 3), firmly stuff paper toweling around the leg wire with a long blunt tool such as a chopstick. Fill each leg to the middle of the knee.

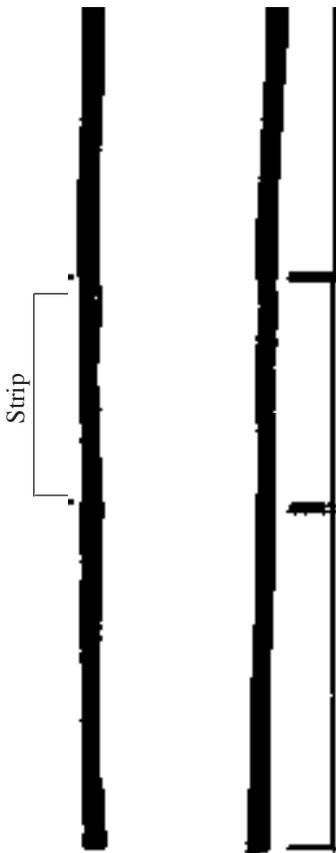


figure 1



figure 2

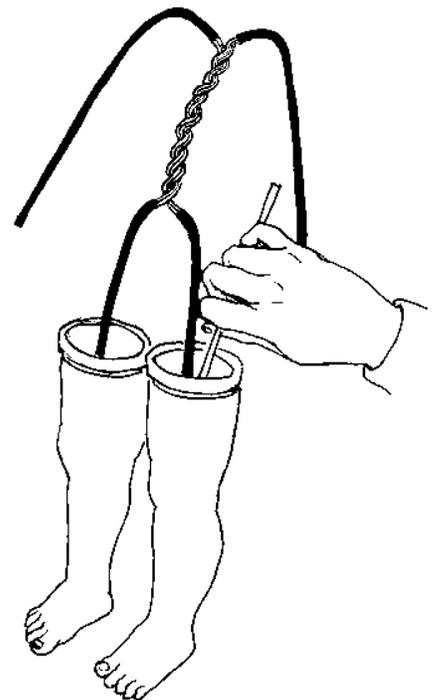
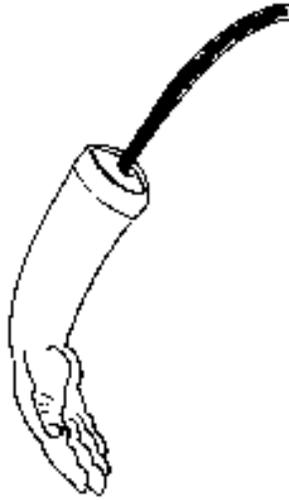


figure 4



Mix up a batch of Durhams Rock Hard Putty to a STIFF consistency as follows: *Add one and one-half cups powder to one-third cup of water and mix well.*

Using plastic drinking straws cut in thirds, insert the straw piece along side of and parallel to the leg armature wire. This will provide a cushion to help counter the expansion of the putty as it dries. Doing so will help keep the porcelain from splitting. Pack putty around leg wire and the section of straw filling only to the wire groove in the porcelain near the top of the leg. Carefully lay the armature over diagram.

Pack each arm with putty to within one-half inch of the top. Push each arm wire onto the corresponding limb of the armature. (Left arm on left wire, etc.) Clean any excess putty from porcelain with a damp cloth or sponge. Check once more against diagram for correct length of arms and legs. (see figure 4) Adjust if necessary. Allow putty to harden without disturbing for 3 or 4 hours before proceeding.

### BODY CONSTRUCTION

#### Materials

3/8 - 1/2 yard of 38" heavy weight muslin

cup

Cut leather or felt lining piece and shape to fit cupped neck indentation. Trim leather to fit snugly without overlapping seam. Glue lining securely and set shoulder plate aside to dry.

#### Body

Stitch darts in body back pieces (B). Bring dotted line to solid line of leg tuck. Stitch from the wrong side on dotted line. Turn pleat allowance toward center back.

Lay Body back pieces right sides together. Stitch center back seam. Clip curves.

Lay body front (A) pieces right sides together. Stitch center front seam. Clip curves. Matching the notches on the lower legs, stitch side seams from dot to bottom of leg openings.

Matching center seams, stitch inseam.

4 - 5 inch square piece of soft lightweight leather or felt

Thread to match muslin

Craft glue (Velverette or similar glue)

32" of 20 gauge copper wire

Needle nose pliers

Polyester fiberfill stuffing

Watersoluble marker or pencil

Hand sewing needle

General sewing supplies (pins, shears, etc.)

Paper toweling

Shoulder plate/head connector

#### General information

*Please read through the instructions carefully before beginning.*

If you wish to preserve the printed paper body patterns, trace the pieces onto lightweight interfacing, vellum or pattern tissue paper.

If the muslin seems unusually stiff, wash and press the fabric before cutting out pieces.

Be sure to transfer all dart and pleat markings and fold lines onto fabric pattern pieces before beginning.

All seam allowances are 1/4" unless otherwise stated. Wire casing lines for legs and arms are 1/2".

Backstitch securely at the beginning and ending of all seams to prevent them from pulling out after the body is completed.

Clip curves to seamline before turning pieces inside out.

Space clips close enough together to ensure smooth curves, but not so close as to weaken the seams after the part is stuffed.

#### Basic body construction/preparation

Following pattern layout guide, cut out all doll body pieces. When finished, you should have:

2 body front (A)

2 body back (B)

4 arms (C)

4 shoulder plate straps (E)

1 leather or felt lining for shoulder plate neck

- A - Front Body
- B - Body Back
- C - Shldr Pl Strap
- D - Arm 1
- E - Arm 2

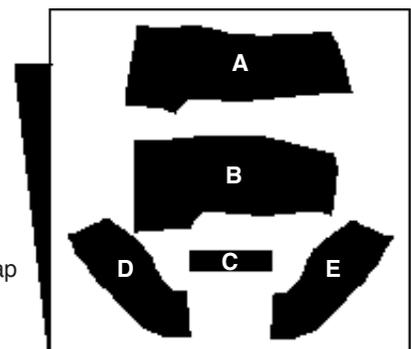
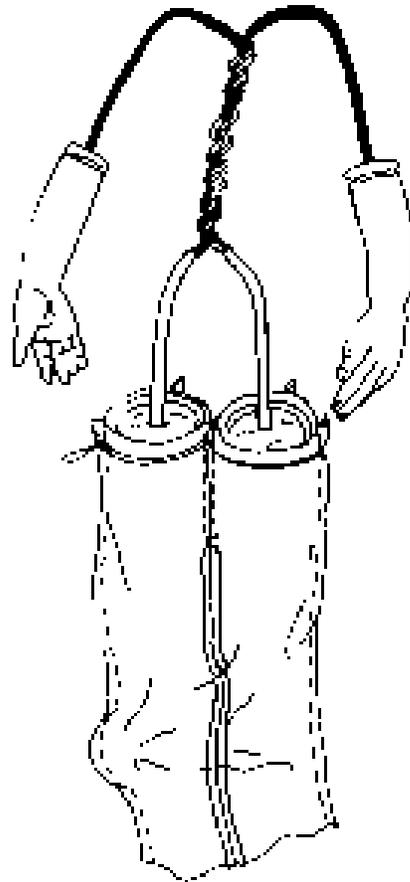


figure 5



Keeping body shell inside out, slip feet into leg openings as shown. Pull leg openings up to the top of porcelain legs, where the groove is located.

Line up outside and inside leg seams of the body shell with the sides of the porcelain legs. Align wire casing mark on leg openings with the groove in the porcelain.

Cut a 9"-10" piece of 20 gauge copper wire. Position the wire around the leg opening so that it lays in the groove. Secure by twisting ends of the wire together tightly with needle nose pliers. Cut wire off leaving a 1/2" tail. Bend tail flat against leg. Repeat for opposite leg. (see figure 5)

Turn body shell right side out over legs and wire armature.

Stuff body shell with polyester fiberfill. Pack stuffing around wire armature keeping wire in the center of the doll's body. Stuff a wad of extra stuffing in the derriere area between the back dart and the leg tuck.

When you reach the "shoulder" portion of the wire armature, spread a layer of stuffing over the shoulder tops. Do not over-stuff as this will not give a firm foundation for the shoulder plate to rest on.

Fold the edges of the body shell in and around the arm openings. Folding raw edge under, lap the front body fabric over the back and slip-stitch in place by hand with needle and thread. (see figures 6 and 7)

#### Arms

Sew two pairs of Arm (C) pieces together on stitch lines to make two arms. Leave arms inside out. Slip porcelain arm into fabric shell.

Align underarm seam with a point directly above the thumb. (Note arrows figure 8)

Cut a 6" piece of 20 gauge copper wire. Align casing line with groove in porcelain arm. Secure by twisting wire tightly as for leg. (see figure 9)

Stuff arms with polyester fiberfill, taking care to keep the armature wire well padded and in the center of the arm.

Use a little extra padding on the shoulder cap at the arm/body juncture to fill out the shoulder area. Turn raw edge under as you slip-stitch arm to body by hand with a needle threaded double. (see figure 10)

#### Attaching the shoulder plate



figure 6

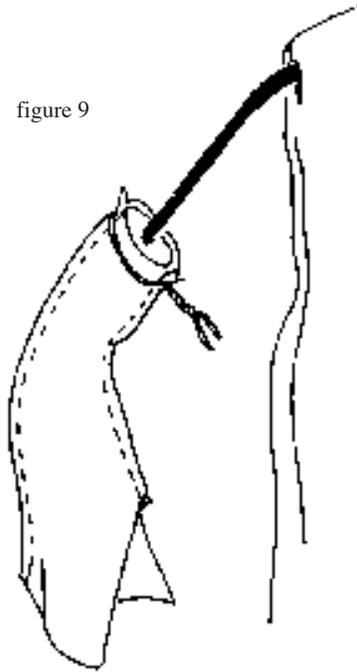


figure 7

fig



figure 9



Attach head to lined shoulder plate with head connector of your choice.

Fold shoulder plate straps into thirds on lines indicated.

Press and stitch along raw edge. Thread each strap through one of the sew holes in shoulder plate.

Mount shoulder plate and head securely on body. Pin straps to the doll body at a slight angle. Cut off excess strap, leaving approximately 1" below plate. Stitch front and back straps to body using a double-threaded sewing needle.

### Portrait Arms

Trace arm piece onto muslin fabric, be sure to trace the diamond shaped dart along with the two side darts. With right sides together fold arm piece in half (point to point on diamond shape dart) Stitch on traced line, this will form your elbow. fig. 12

figure 10

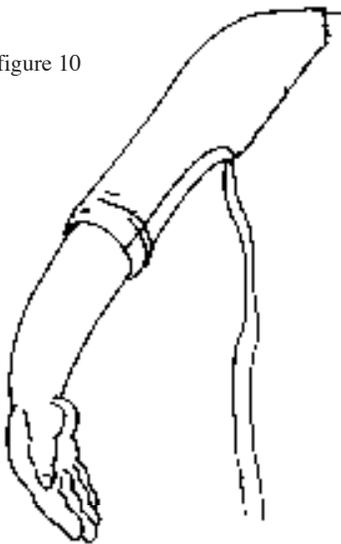
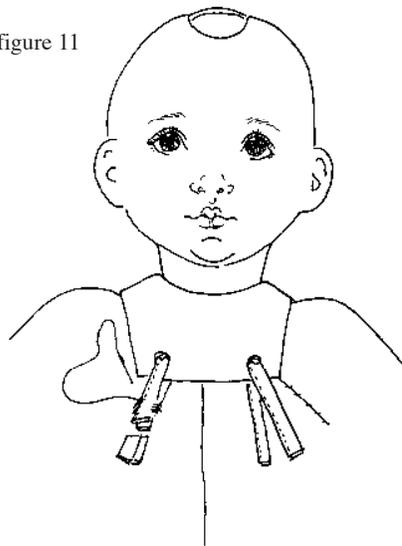


figure 11

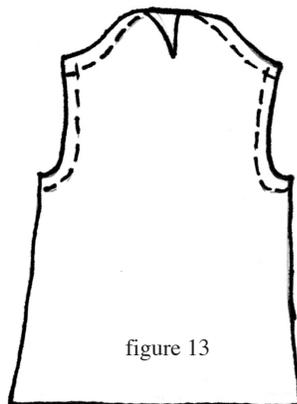


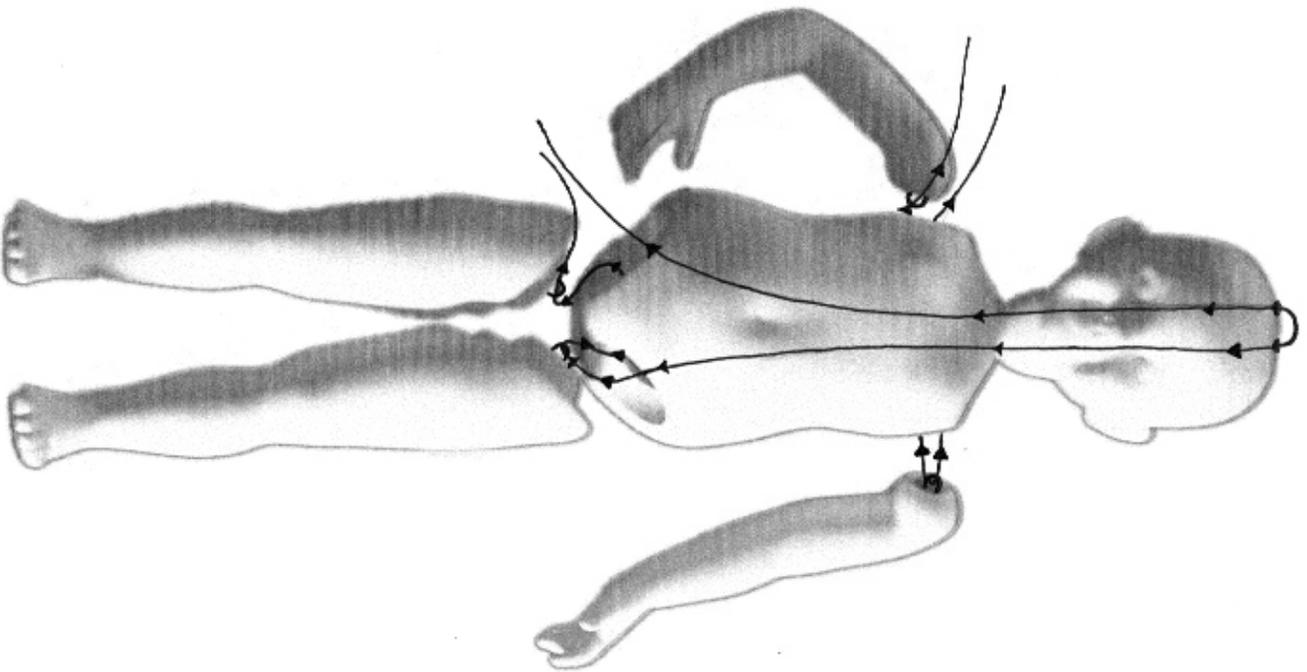
Open arm piece and fold top down right sides together and matching raw edges, stitch both side darts fig. 13. Open arm piece again and fold in half. With right sides together and matching raw edges stitch inner arm seam.

figure 12



figure 13





### All Porcelain Body Stringing Instructions

Note: In the greenware stage, drill 2 holes in top of head, approx 1/4" to allow for shrinkage in firing.

After completion of all painted parts, cut small half circles of leather or felt. Glue around holes in legs, arms and neck sockets so the pieces won't gring against each other.

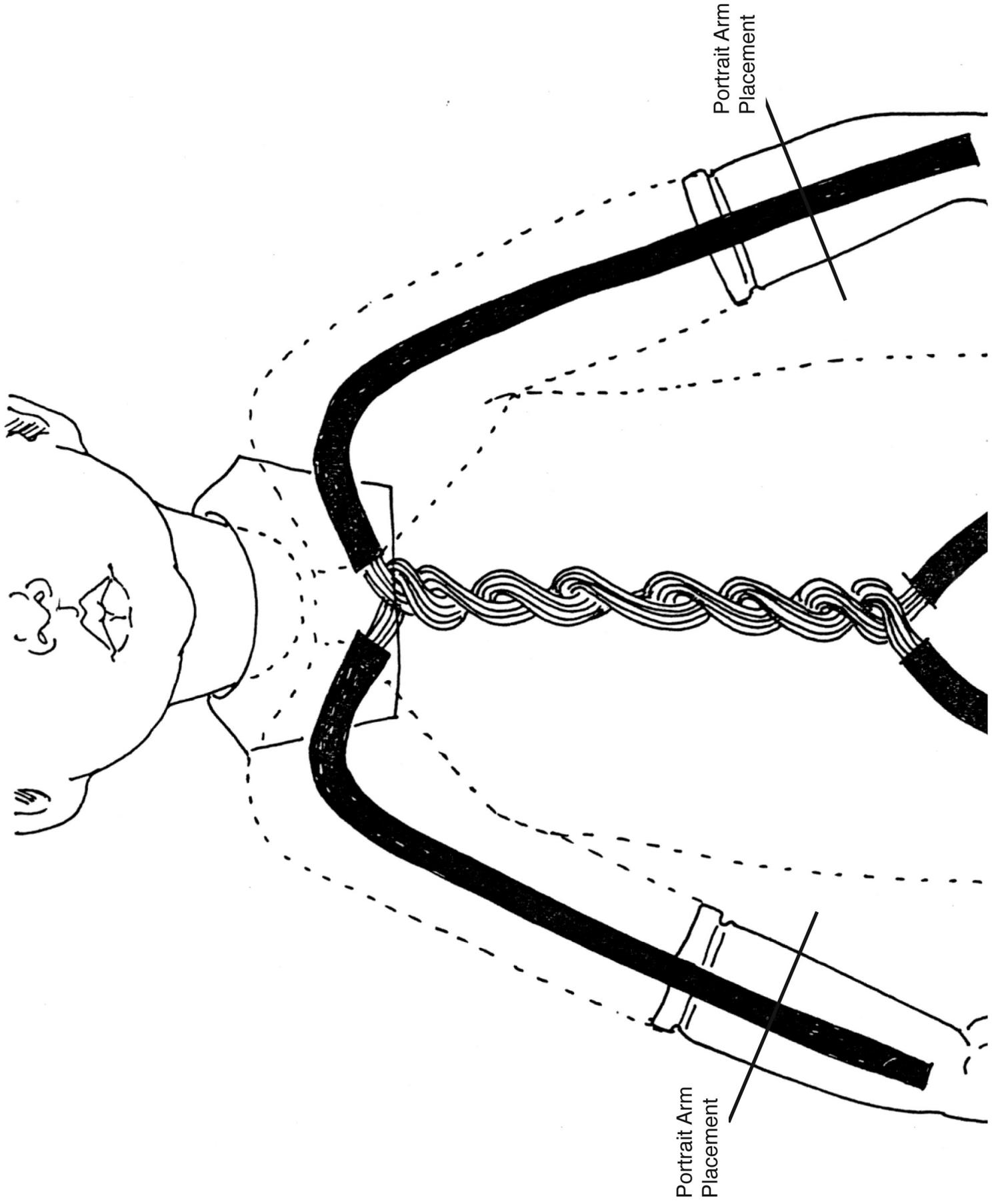
Fill arms and leges 3/4 full of polyfill. Fill remaining portions with "Durhams" Rock Hard Putty, set hooks and let stand about 8 hours to be sure your putty is completely dry. After all hooks are set you may begin to string your doll.

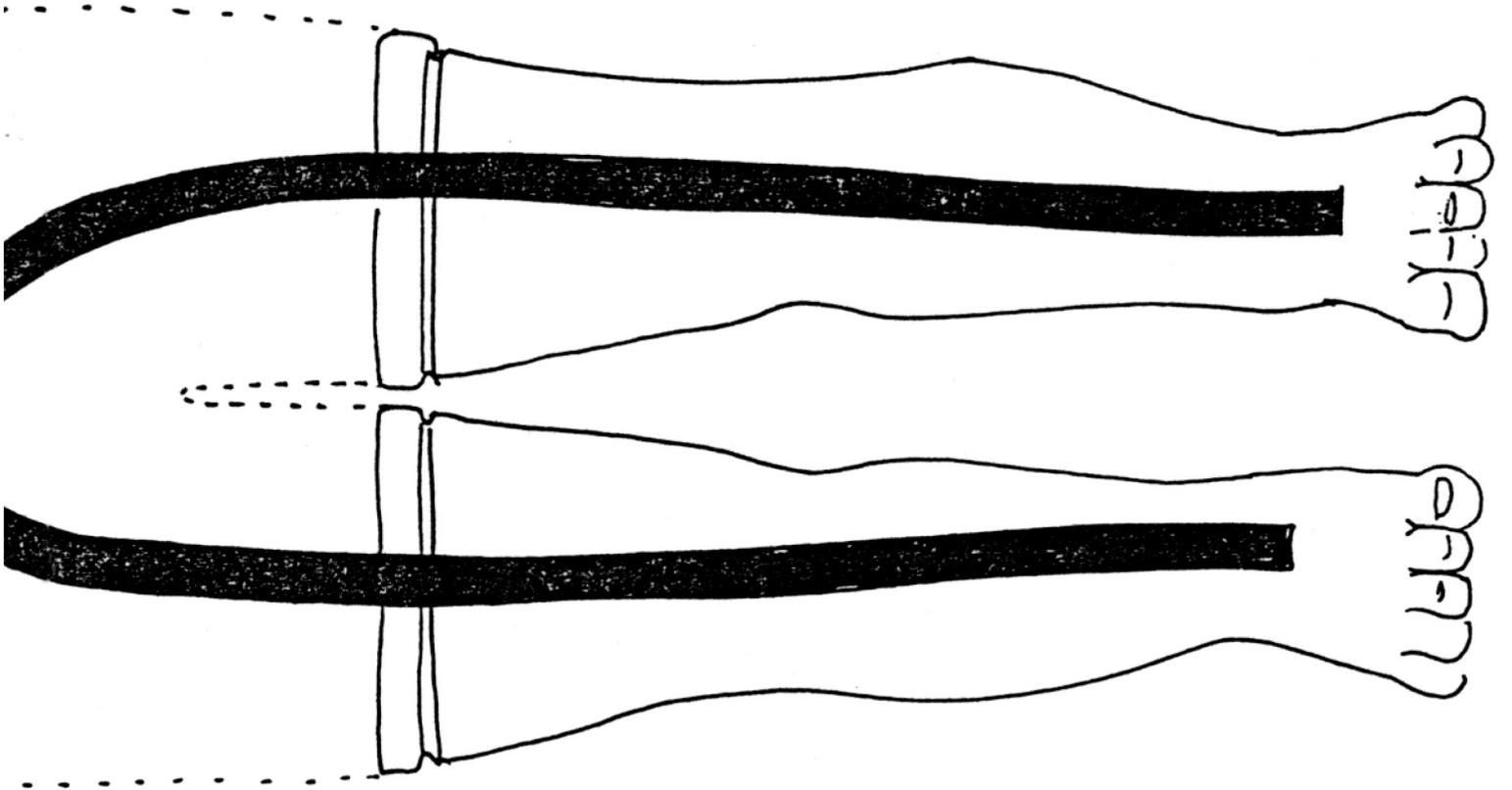
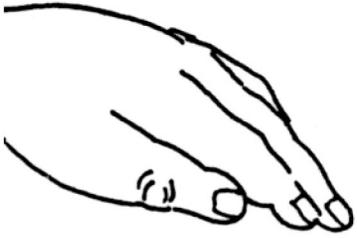
Cut 30 inches of 1/8" elastic. Start by folding in half and thread through holes in head, through body cavity and out through each leg socket.

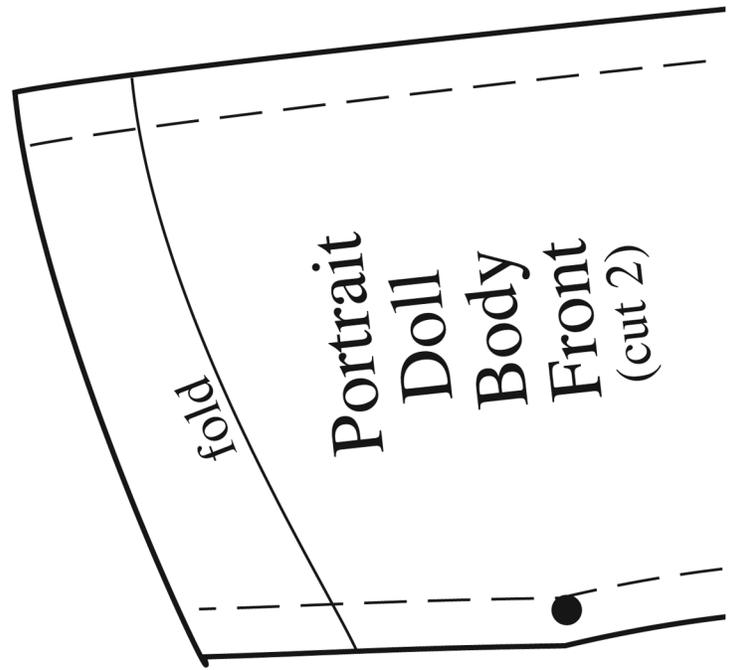
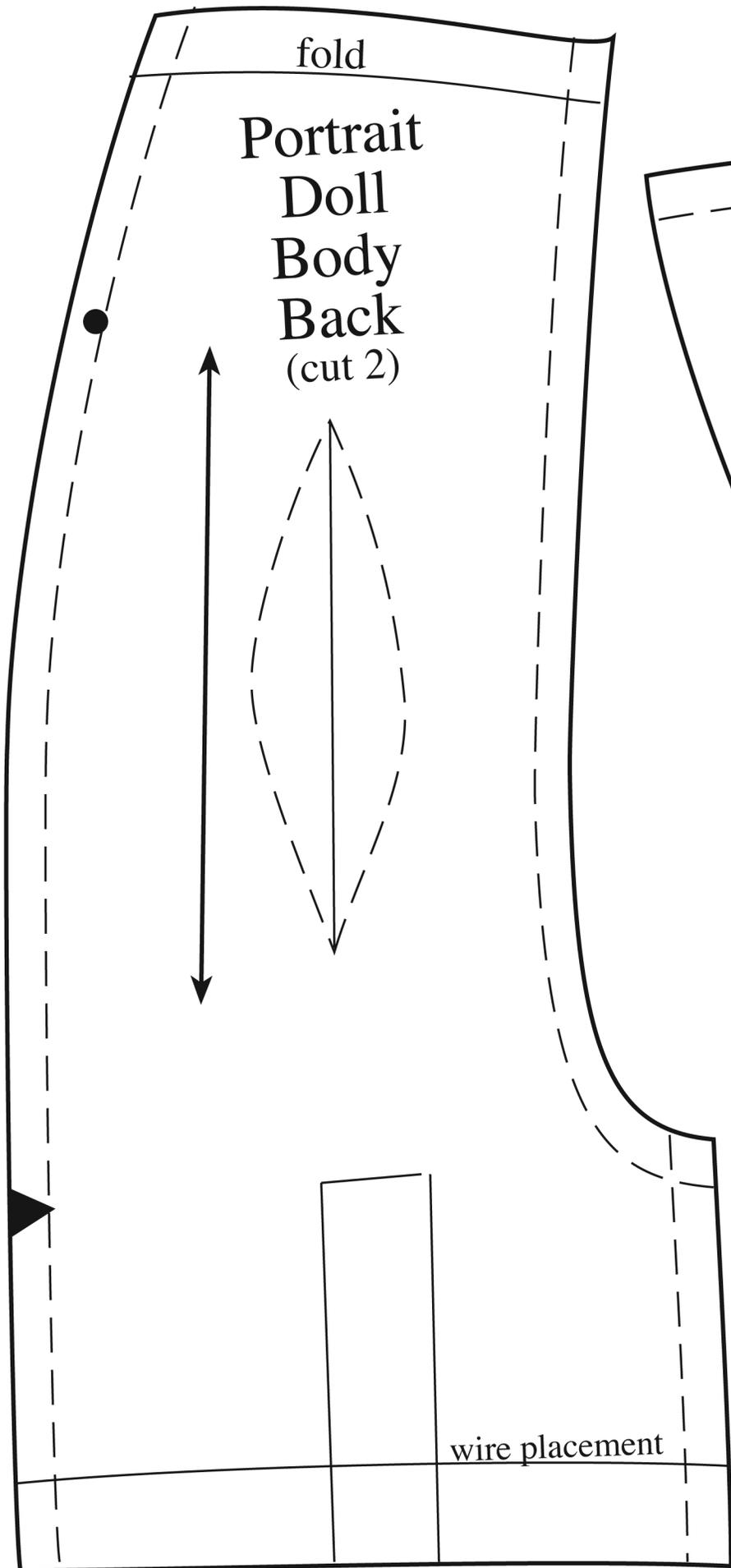
Feed elastic through hook in left leg and back through leg socket and out through right leg socket.

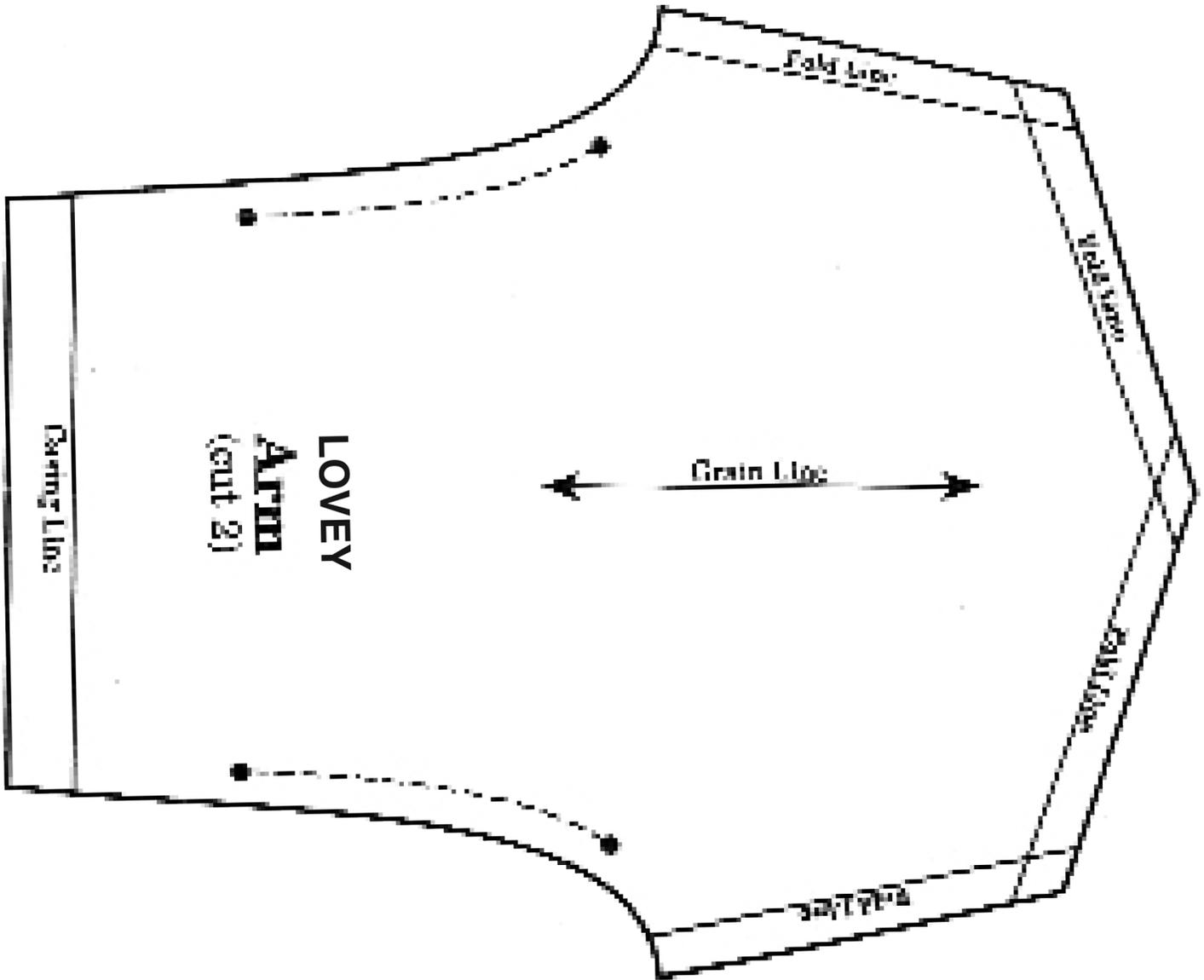
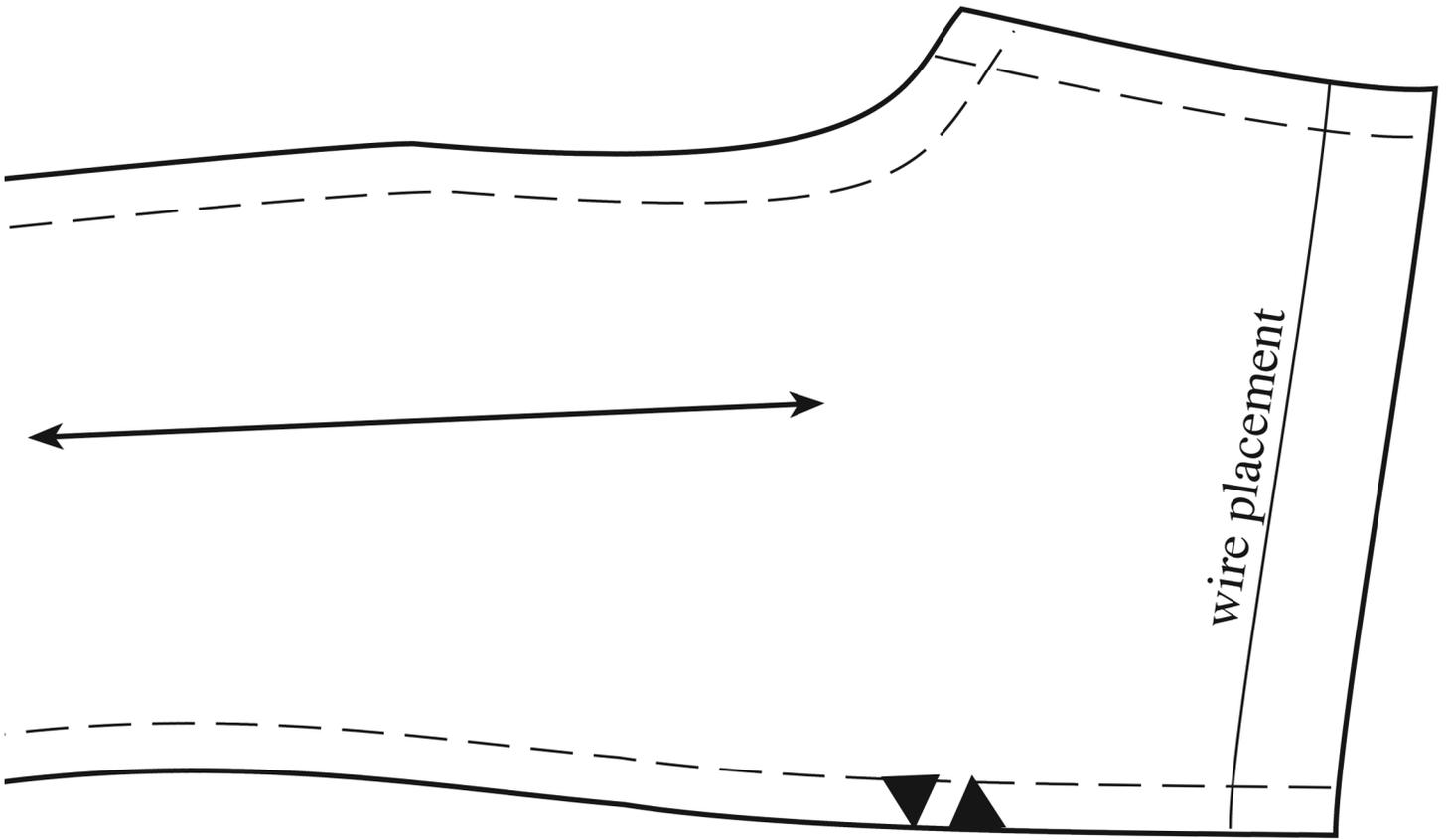
Feed elastic through hook in right leg, pull both ends of elastic tightly and tie off. Cut off excess elastic.

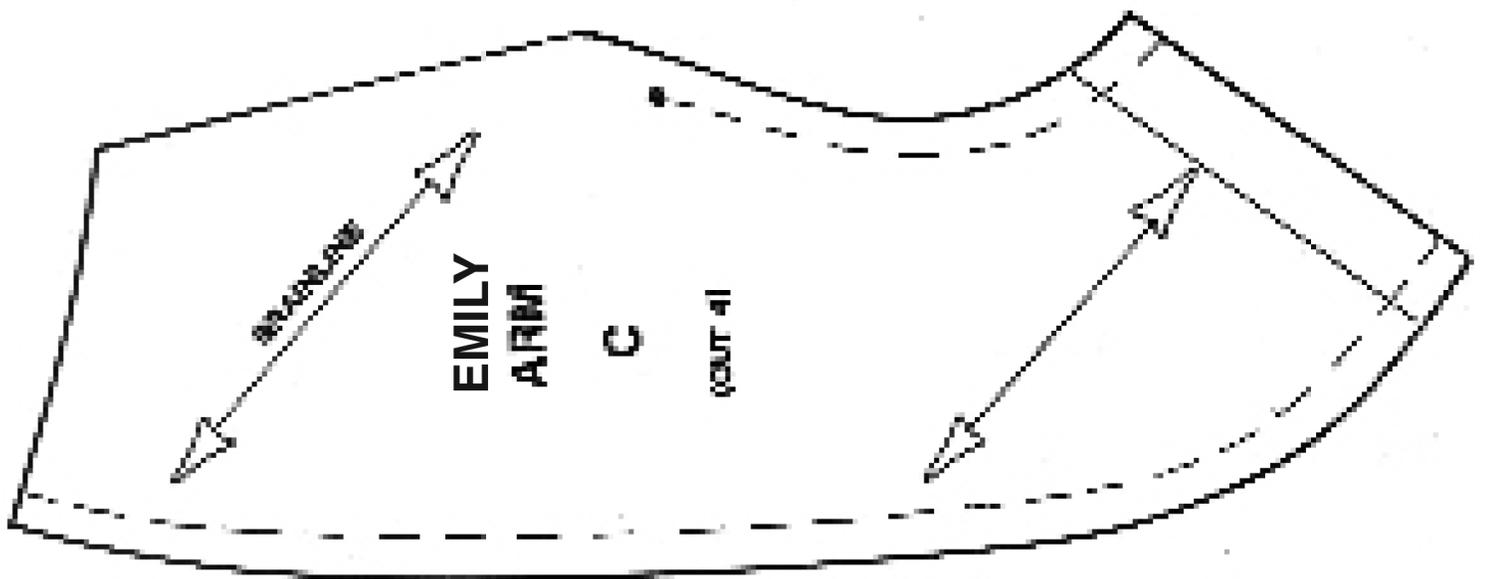
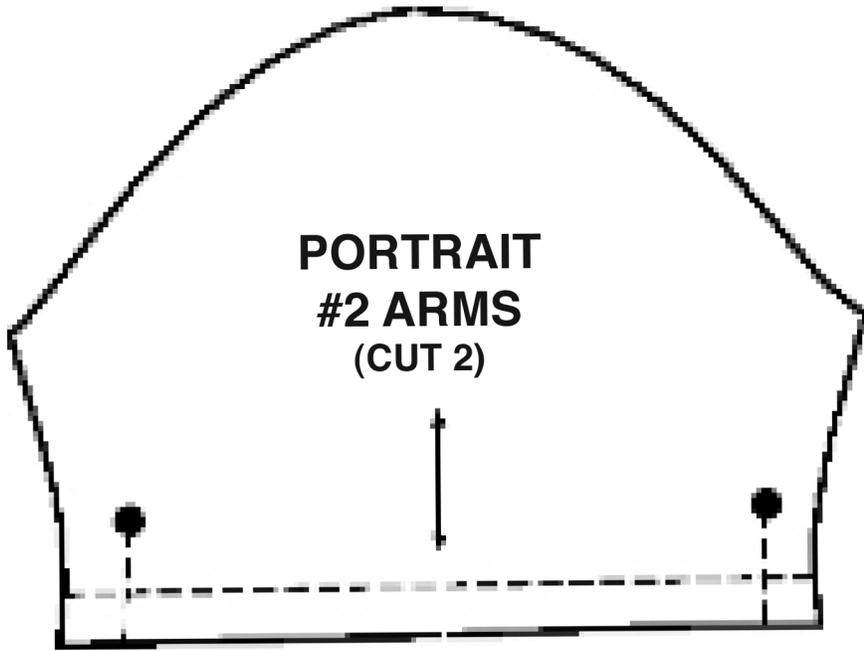
For stringing arms, cut 20" of 1/8" elastic. Feed through hook in left arm and thread both pieces through chest cavity and out right arm socket. Thread one piece of elastic through hook in right arm and pull both pieces of elastic tightly - tie off and cut off excess elastic.

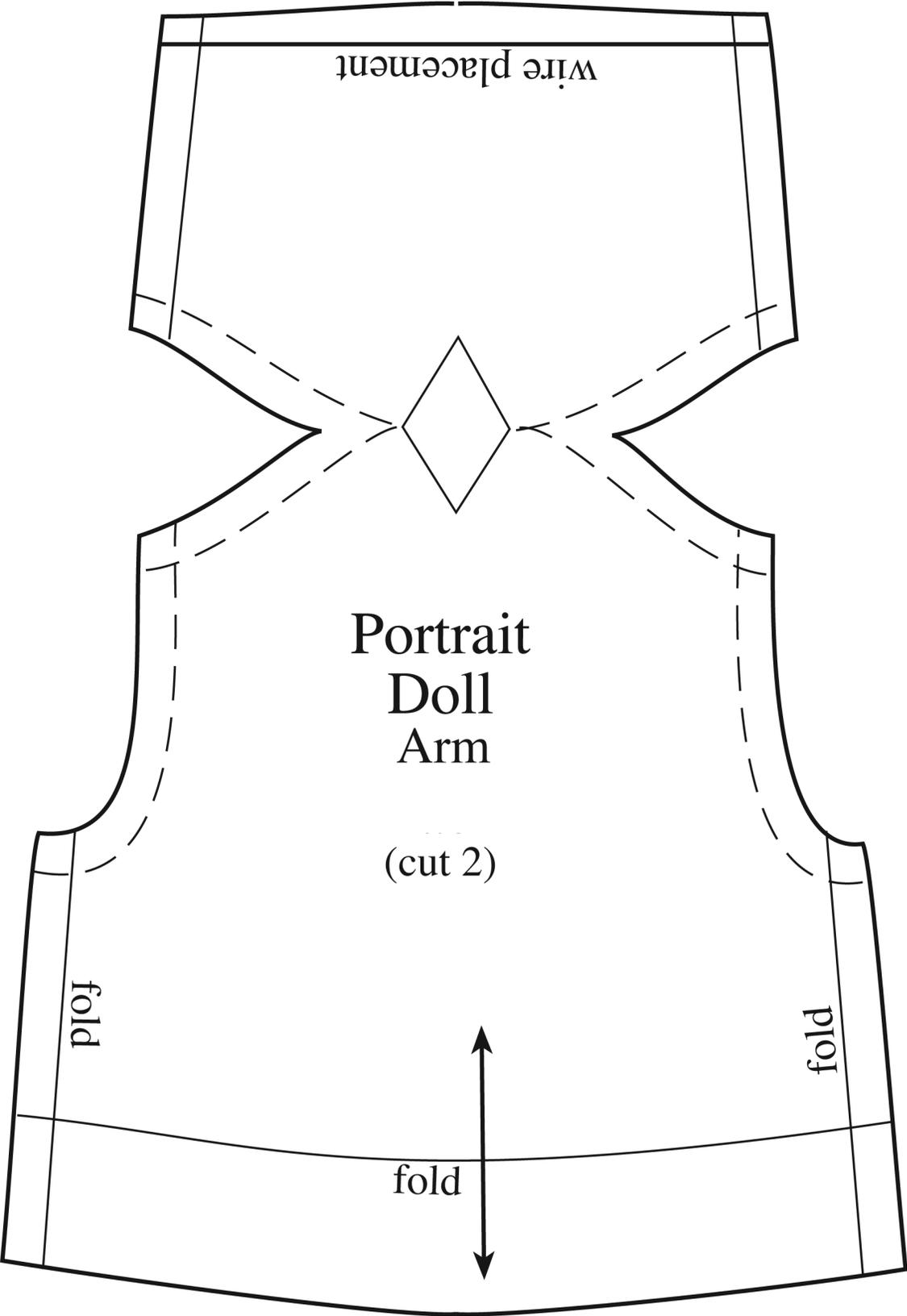












## Painting Instructions

### SUPPLIES

paint brush size 0 or 00

size 1 or 2 round detail brush

mineral oil or medium

paper towel

soft cloth (T-shirt material works well)

make-up sponge wedges

China Paint Eraser by Bell Ceramics or

Star Type Cleaner (Faber Castell - found  
in office supply stores)

small deerfoot stippler

China paints (listed under Paint Sources)

### Optional Supplies

14-16mm glass or glastic eyes (optional)

9"-10" Tiffany wig

Supplies available from:

Expressions

P.O. Box 174, Jamestown, MO 65046

1-800-452-2480

### The Porcelain

Pour porcelain head, shoulder plate, arms, and legs in porcelain slip of your choice. (We used a mixture of 1/3 peach, 1/3 doll flesh and 1/3 white Bell Slip. When head is firm enough to be removed from the mold, make a hole in the flat part as shown. (fig. 1) Poke two small holes 1/2" apart. (fig. 1) These will be used for tying the elastic when the doll is assembled. If you plan to use glass eyes, carefully cut out eye openings with a scalpel or exacto knife. Cut hole in neck opening of shoulder plate. Poke a small sewing hole

in each corner of the shoulder plate. (fig. 2) When porcelain is bone dry, remove parting line. Bevel eye opening with an 18mm eye sizer. Bevel bottom edge of shoulder plate. Drill small holes to 1/4" with a drill or cleaning tool. Clean and finish porcelain parts using the method of your choice.

If you plan to paint the eyes, please note before firing: careful inspection of Jenny's eyes will reveal a raised lens which has been modeled into the original sculpture. This was done to produce a highlight in the painted eye similar to that of a real eye. If you wish to reproduce Jenny with the same gaze as the artist's original, you can use this sculpted iris to help you position the iris when you begin to paint. In this case, please leave sculpture as it is. If you would prefer to change the gaze of the eyes, gently rub away the raised portion with a soft piece of stocking or a Q-tip.

After porcelain has been fired to cone 6 and scrubbed to a smooth finish, it is ready to be painted.

We are in the process of switching over to water-based medium in our studio, and have been very pleased with the results. Therefore, these instructions will emphasize the methods and materials we used in working with water-based medium. Oil based medium may be substituted, if preferred. The technique is basically the same for both. We have learned that, generally, synthetic brushes work best with water-based medium, while sable brushes are preferred with oil-based medium.

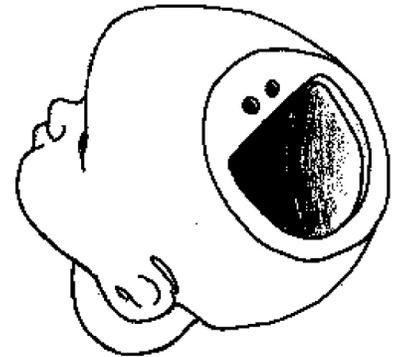


figure 1

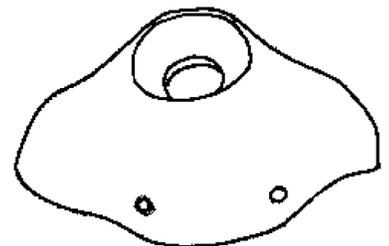


figure 2

## Preparing Your Palette

Mix up paint (powdered pigments) with the medium of your choice (we recommend Watersilks #II) according to manufacturer's instructions. The pigments we have used for Jenny include:

Blush - Old Master Red

Eye Shadow - Hair Brown

Lashes - Hair Brown, Velvet Black

Eyebrows - Hair Brown, "Mystery" Brown (That means I can't remember what I used!)

Eyes - Blue Black, Silver Gray, Best Black, Matte White

Lips - New Soft Pink, Old Master Red, First Kiss



figure 3



figure 4

## First Firing

Apply painting medium of your choice to entire head. Rub away excess with a soft cloth. With a make-up wedge, apply a light blush of red, such as Pompadour Red. Rub away excess paint and smooth the application with a clean, soft cloth. For painted eyes, remove blush from the eyeballs with a clean brush and a drop of solvent or a small piece of China Paint Eraser (type cleaner). Apply Matte White to exposed eyeball surface, being careful not to get any on the lids. Clean away unwanted paint with China Paint Eraser. (Fig. 3)

## Second Firing

**Eyelashes:** With a fine detail brush or liner, apply Hair Brown to the upper lash line and the crease above the eye. With a deerfoot stippler, pounce with repeated up and down strokes to disperse and soften color over shadow area. (Fig. 4) With a fine liner brush dipped in Watersilk I and blotted, pick up a bit of Hair Brown from your palette with the very tip of your liner. Make tapering lashes with strokes that sweep up and away from upper lash line. Lower lashes should be longest at the outer corner of the eye, gradually diminishing and disappearing toward the inner corner. (Fig. 5)

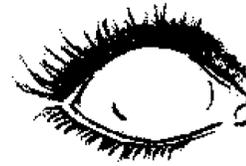


figure 5

**Eyebrows:** Eyebrows are also drawn in Hair Brown in this firing. Use a fine line brush conditioned with Watersilks I. You may want to vary the color according to the wig you plan to use on your doll, though Hair Brown is a basic color, and others may be blended in on the next firing. Before beginning to paint, carefully consider the shape and position you would like. The position of the brows greatly affects the expression of the face. For a pleasant, benign expression and for balance and symmetry follow this rule: draw an imaginary straight line from nose to inner corner of the eye extending it to determine the approximate point to begin the brow. Do the same using the outer corner of the eye to determine the outer-most extremity of the brow. (Fig. 6) Use a fine liner brush and Watersilks I medium to draw fine hair-like strokes in eyebrow configuration. (Fig. 7 or 8) Study close-up photograph.



figure 6



figure 7

**Eyes:** Study close-up photo of Jenny for the shape and position of the iris and pupil of the eyes. Also notice the shape of the white portion or negative space (highlight) as you paint the iris of the eye.

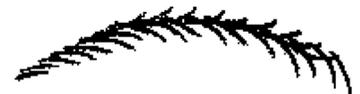


figure 8

With a detail brush dipped in Watersilks I, pick up some Blue Black paint from your palette and begin to shape the

pupils or center of the eyes. (Paint should not be applied too heavily.) The purpose of this first stage is to rough in the eyes in order to establish their relative position. Later, the pupils will be painted over with Black. Keep checking the photo for exact position as you work on shape, size, and position of the iris. (Fig. 9) Do the same as you draw the outer rim of the iris for each eye. Think "round" as you focus on drawing the outer rim equi-distant from the center of the eye. Don't forget about the white negative space as you work. Turn head as necessary to allow greatest control of brush strokes. When both eyes have been drawn, check for gaze. (Fig. 9) Hold head away from you and cover one of the eyes. Position head so that the uncovered eye appears to look at you. Keeping head in the same position, cover the other eye so that you can see if the other eye is also looking at you. If the eye appears to look elsewhere, try to visualize what needs to be changed so that the eye will look at you. It's easy to change the position of the iris and pupil by picking up paint with a small piece of eraser shaped to a point, and then re-drawing it. Continue this process until you are satisfied with the gaze.



figure 9



figure 10



Next, fill in the unpainted portion of the iris with a light application of Silver Gray. With a clean fine liner brush that has been conditioned with Watersilks II and blotted, pull tiny strokes of paint from dark outer rim toward the center, lifting the point of the brush from the center to achieve a tapered stroke. Turn the head as you proceed around the rim for better control of brush strokes. You may want to pull some paint in the opposite direction, sweeping paint toward the rim in tiny strokes so that color piles up along the rim of the iris. The portion of the iris above the pupil and just under the lid should be darker in color, so be sure to add more Blue Black paint there. (Fig. 10) The crescent shaped area just under the pupil should be lighter in value. By controlling your brush strokes, minimize the amount of darker color that is allowed in this area. For lighter eyes, allow little, or none. For darker eyes, allow more. A few strokes of Matte White added and blended in with more tiny radial strokes will introduce an even light value.



figure 11



Finally, go over the pupil of each eye with Best Black paint, carefully clarifying and perfecting the uniform roundness, size, and position of the pupils. Remember that the colors will be intensified in subsequent firings. They will appear somewhat transparent with the second firing.



figure 12

Lips: Apply a very light application of New Soft Pink. The main purpose of this step is to impart a glossy or wet look to the mouth. Any pale pink that is glossy can be substituted. Lips will be colored in a later firing.

With a fine liner brush tipped with Hair Brown, paint the line separating upper and lower lips. Stipple with deerfoot stippler as in instructions for eye shadow. This is a lip shadow. (Fig. 12)

Note: Eye colors are fired to cone 016 to achieve a glossy look. Cheek blush and lips and other details not requiring a glossy look can be fired last to cone 019. This will insure that the reds will not "fire out."



figure 13

### Third Firing

**Eyelashes:** Intensify upper lash line with fine liner brush loaded with Velvet Black. Intensify upper lashes keeping darkened lashes short as shown in photo for a natural "little girl" look. If lower lashes seem too pale, you may want to intensify them a bit with a liner brush and some Mystery Brown, or whatever shade you might be using for the eyebrows.

**Eyebrows:** If you want darker brows, add a few hair strokes with fine liner brush in "Mystery" Brown to the thickest part of the brows.

**Eyes:** Intensify the color of the iris of each eye by repeating the process in second firing until the desired look is achieved. Go over the pupil with Best Black. If you desire a painted highlight, repeat steps in second firing. Fire to cone 016. (Fig. 11)

### Fourth Firing

**Lips:** With fine liner brush, paint shaping lines at top and corners of the mouth. Stipple to soften. Fill in lips and blend with a light application of First Kiss. (Fig. 13)

**Cheeks:** Blush cheeks with make-up wedge loaded with First Kiss and blotted. Fire to cone 019.

### Paint Sources

Expressions

P O Box 174

Jamestown, MO 65046

(800)452-2480