A: I was around back in those days and have made that house and others that use the same 'stacked-molding and connectors' technique, and I offer these suggestions.

Paint everything (that will be painted*) one-coat, and sand down to the wood before beginning construction. The quality of the final paint job is 100% dependent on the quality of the sanding after the first coat, and it is impossible to do a good sanding job after assembly. *do not paint the outside of the roofs, the foundation parts until they are pre-assembled, the insides of the connector's grooves or the lips and grooves of the clapboard pieces (if paint gets on them here and there, it's no big deal, but as a global intention, that's not where you want the wood sealed). Do not paint inside the window parts' grooves. Painting the second coat is a back-and-forth process of painting and assembly. In most cases it is best to assemble and then paint the assembly from a strength point of view. Glue won't stick to a second-coated part very well, so things that require strength should either be painted after assembly, or should be marked and scraped for gluing to get the second-coat of paint out of the way for some glue contact inside the joint (where the scraping will be invisible). I often mark a joint, paint to just cover the mark, and then glue so the paint is perfect (with the transition hidden in the joint – a level of perfection impossible to achieve with masking for paint color separation) and the glue is wood-to-wood. So, test ahead and make decisions along the way when to do the painting.

The wall sections WILL expand and shrink seasonally with changes in humidity. You can either accommodate that or resolve to be at peace when the walls split or separate as they shrink. The two techniques I have used to accommodate that movement are:

1) Glue the walls together thoroughly, but glue them into the connectors only at the bottom 2". Glue the windows into the cutouts only at the bottom 1". When the walls are glued to the floors, only glue the walls at the bottoms, not at the tops. This allows the walls to shrink away from the top which is partly hidden by the nosing. On the inside, gluing a strip of ¼ x ½ to the ceiling on the inside of each wall (but not to the wall), and to the connectors at each end to reinforce the joint at the top without interfering with the wall's ability to shrink away. The downside of this technique is that the next higher floor is only connected at the tops of the connectors and by the Dividers. If the house is to be moved around much it makes it vulnerable to breakage.

Or (preferred):

2) When you paint the clapboard sections, paint the tongue of each piece thoroughly as you paint the rest of each piece. Paint the clapboard pieces with two coats sanded between coats or more if needed (don't paint the ends). Glue the wall sections together with small amounts of non-structural glue like Quick-Grip or Magna-Tac, and glue them into the Connectors with a fully structural glue (like Aleene's Original Tacky Glue (in the bronze bottle)). Glue the tops and the bottoms to the floors (scraping for a good joint or mark&paint as explained above). The downside of this technique is that as the walls shrink each section will separate at the tongueand-groove, and this separation will be visible, suggesting to the owner that they ought to fill the "cracks" on the inside to make them smooth. That fill will literally tear the house apart and it will collapse. To prevent that, interior finishing (painting, wallpapering) should be done on card stock and loosely glued to the insides of the walls, so down the road no-one will try to 'fix' the walls. The other

liability is that assembly really needs to be reserved for the humid times of the year. This is not a winter-time technique in the North country (when central heat makes the inside humidity really, really dry, and wood is shrunk to its lowest size of the year). The separations between the clapboard pieces will be visible but is necessary for the wood to be able to move freely. If the individual pieces are fully painted, what shows is an extra wide shadow every 2½", and using this techniques means being at peace with that amount of visibility during the dry part of the year.

I hope this boat-load of reflections doesn't put you off, though. This is a wonderful project and, with some thought to the natural behavior of wood, it will be an heirloom build.

Best wishes



Batrie Dollhouses

970 FELLSWAY • P.O. BOX A • MEDFORD, MASS. 02155 • (617) 396-8080

DIVISION OF -30K HARVARD TABLE TENNIS, INC.



BATRIE DOLLHOUSES

Model DH-30K

Dollhouse Kit

ASSEMBLY INSTRUCTIONS

Refer frequently to the photograph of the completed dollhouse on this page to aid yea in assembly.

1) INTRODUCTION

Congratulations on your purchase of a Batrie Dollhouse.

Your dollhouse has been precision crafted in Massachusetts with meticulous care by our Yankee Craftsmen using only the finest quality materials.

Take your time during assembly and be sure to read the instructions completely before you proceed.

This dollhouse will last for years, even generations, if proper care and attention is given during assembly.

2) HELPFUL HINTS

Always read through all assembly instructions before assembling the house.

Doinot skip steps. Follow the instructions in the defined sequence.

a) Arrange pieces in groups ready for assembling. Following the assembly instructions, assemble enough in a dry run to be sure you know ahead of time when and how each part fits. Always be sure of the parts orientation before gluing.

- b) Sand any rough edges or splinters before gluing.
- c) Use generous amounts of glue. Always wipe off excess glue immediately.
- d) Make all joints flush. Keep surfaces and edges square.
- e) Occasional changes in humidity can cause all woods to expand or contract slightly. Always "dry-fit" parts before gluing. Limited sanding or clamping may be required for proper fit.
- f) All Batrie dollhouses kits are inspected before shipment. However, climatic changes and handling during shipment may cause defects.

If this occurs and there is sufficient time for us to replace the part, please contact our Service Department for replacement. (Address on next page)

Be sure to include explicit identification and measurements for the replacement part.

Most repairs can easily be made by the kit builder using either white glue or plastic-wood filler and sandpaper.

Warped parts are usually selfstraightening during assembly.

- g) A large, clutter-free, well lighted work area is most helpful during assembly.
- h) Before you begin to assemble the dollhouse, it will be helpful to have the following materials handy:

White glue (Elmers)
Elastic bands
Masking Tape (2+ inches wide)
Sandpaper (Medium grit)
Pencil
Ruler

- i) It will be necessary to use weights when gluing to insure proper adhesion and minimize slippage. Books or other flat household objects work very well as weights in these situations.
- j) Read the instructions carefully, look at the illustrations and photograph on the front cover; and think the assembly through before you proceed.

TAKE YOUR TIME

NOTE:

For the <u>fastest</u> replacement of shortages or broken parts, write direct to Batrie Dollhouses.

Batrie Dollhouses Service Department P.O. Box A Medford, MA 02155 3) The first step is to identify and familiarize yourself with all the items in the kit.

Figure 1 identifies the major plywood parts in the kit.

4) Figure 2 illustrates the clapboard siding pieces required to build the first floor of the dollhouse.

Also illustrated are the 90° corner mouldings and end cap mouldings used in assembling the first level of the house.

Please note that the 90° corner mouldings have a 3/8" face and a 7/16" face.

During assembly, the 3/8" face of the 90 corner connectors <u>must</u> always face forward or the house will not fit on the plywood base.

5) Figure 3 contains all the parts that make up the dollhouse trim kit package.

These parts will be used after the doll-house structure has been completely assembled.

- 6) The window, door and dormer windows are assembled and separately bagged.
- 7) The first step of the assembly procedure is to build up the clapboard walls of the dollhouse.

Identify and arrange the siding for the 5 walls of the house (Section A through E) per Figure 2.

- 8) The clapboard siding used on a Batrie Dollhouse is structural siding designed to be entirely self-supporting when used in conjunction with the edge connectors supplied in the kit.
- 9) Without glue, dry-fit the clapboard siding pieces to make sure that they interlock without interference.

NOTE: The clapboards without a tongue are always installed at the top of a wall section.

Sand off any rough edges or protrusions to make sure the siding seats properly.

- 10) After you are satisfied that the siding will interlock properly, you are ready to glue up the wall sections.
- 11) Start with Section A, using Figure 2 as a guide, glue the siding together.

Run a bead of white glue into the groove end of the pieces and press the tongue end of the adjacent piece into position.

Push the siding pieces together on a flat surface applying weight and pressure as needed to make a tight joint.

PLYW OOD PARTS LAYOUT PROGRAM

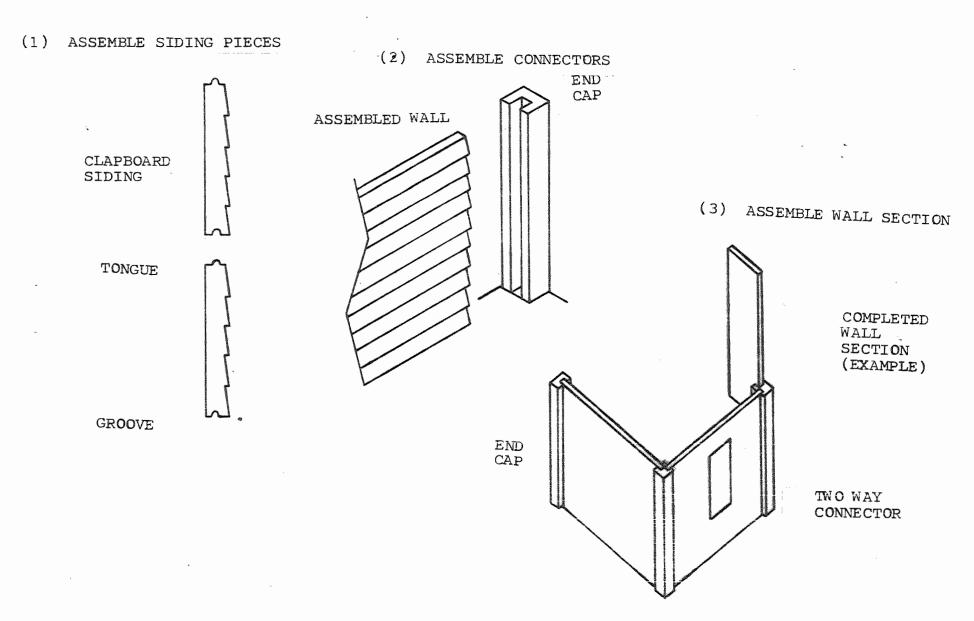
LEFT SIDE PEAK		TOP ROOF RIGHT SIDE PEAK	
		FRONT ROOF	
2nd F	LOOR	1st FLOOR OR BASE SIDE FOUNDATION WALLS QTY 2	
QTY 2 2nd FLOOR RM. DIVIDERS	QTY 2 1st FLOOR RM. DIVIDERS	FRONT & REAR QTY 2 FOUNDATION WALLS INTERIOR STAIRS - RISER PORCH STAIRS - RISER	

WALL SECTION LAYOUT DIAGRAM

CLAPBOARD SIDING SUMMARY PART QTY LENGTH LEFT SIDE LEFT FRONT RIGHT FRONT RIGHT SIDE Α 5 3/16 El Α1 B1 I1 H15 3/16 *A] Ι F В 1 7/32 В G G С Η 1 7/32 *B1 F I G \mathbb{B} 1 31/32 G F Η С D 5 25/32 I В HΑ D E19 1/2 F 2 5/32 D. E SECTION A C В G 1 7/8 Η 5 31/32 END CAP *H1 END CAP 5 31/32 I 7 11/32 END CAP SHOULD BE FLUSH *I1 7 11/32 TO THE REAR OF BASE *Pieces with no tongue (Used at top of a wall TOP VIEW RIGHT LEFT section) E Α SIDE BASE SIDE D 90° CORNER CONNECTOR OR TWO WAY CONNECTOR RIGHT FRONT 3/8" FACE OF 90° CORNER LEFT FRONT ALWAYS FACES FORWARD CLAPBOARD SIDING EDGE NOSING END CAP (2) PCS CORNER CONNECTOR (4 PCS)

CLOSE-UP TOP VIEW
OF 90 CORNER CONNECTOR

Figure 2



It is important the ends of the siding are square and flush.

Remember, the siding piece without a tongue must be positioned at the top.

- 12) Place the wall sections on a flat surface and weight with books or similar objects until the glue sets.
- 13) Complete the remaining wall sections (B through E) of the house.

Be sure all windows and door openings are positioned as shown in Figure 2.

14) The next step is to install the corner connectors to the built-up wall sections.

Clean the ends of the wall sections removing excess glue and any protrusions that may occur to make sure the panels will fit into the corner connector grooves.

Apply a bead of glue to the groove of an end cap and install it to the left side of Section A.

Use Figure 4 as a guide.

15) Next, install a 90° corner connector to the left side of Section B. Refer to Figure 2.

NOTE: It is important that the corner connectors be installed per the drawing in Figure 2. Be particularly careful that the dimensional faces of the connectors are in accordance with the drawing.

In this case, the 3/8" face of the 90 corner connector <u>must</u> face forward or up, if flat on a table top, for the connector to be properly installed.

- 16) Install corner connectors to the remaining wall sections using the procedure outlined in steps 14 and 15 and using Figure 2 as a guide.
- 17) The final step in building up the walls of the dollhouse is to interlock the wall panel sections together as shown in Figure 4 & 2.

Again, apply a bead of glue to the groove of the open end of a connector and slide the siding section into the connector. Make sure the section fits snugly into the connector and is flush at the bottom.

Referring to Figures 2 and 4, interlock all the wall sections together so that you will have a complete wall "shell" for the dollhouse.

18) In this section we will install the foundation to the plywood base.

The plywood base is the floor without a stairwell (Figure 1).

Position the base <u>upside down</u> on your table top and dry fit the foundation walls around the perimeter of the floor. (Refer to 5).

After everything is properly positioned go ahead and glue the pieces in place.

If desired, the installation of the floor can be further secured by nailing the floor to the foundation.

19) Attach the wall "shell" to the base.

Arrange the assembled wall "shell" on the base so that the rear end cap connectors are even with the back of the base as shown in the top view of Figure 2 and in Figure 5.

The walls should be parallel with the sides of the base and the border between the walls and the edge of the base are everywhere equal.

20) With a pencil, trace the outline of the walls on the base.

Next, remove the wall structure and apply white glue liberally to the base within the pencil outline.

Refer to Figure 5 and re-assemble the wall structure onto the floor over the glue track.

Place the plywood second floor on top of the walls. Place books or other weights on the floor and allow the glue at the base to dry.

21) After the glue has dried, remove the weights and glue the second floor into position as shown in Figure 6.

If desired, the installation of this floor can be further secured by nailing the floor to the ends of the corner connectors below.

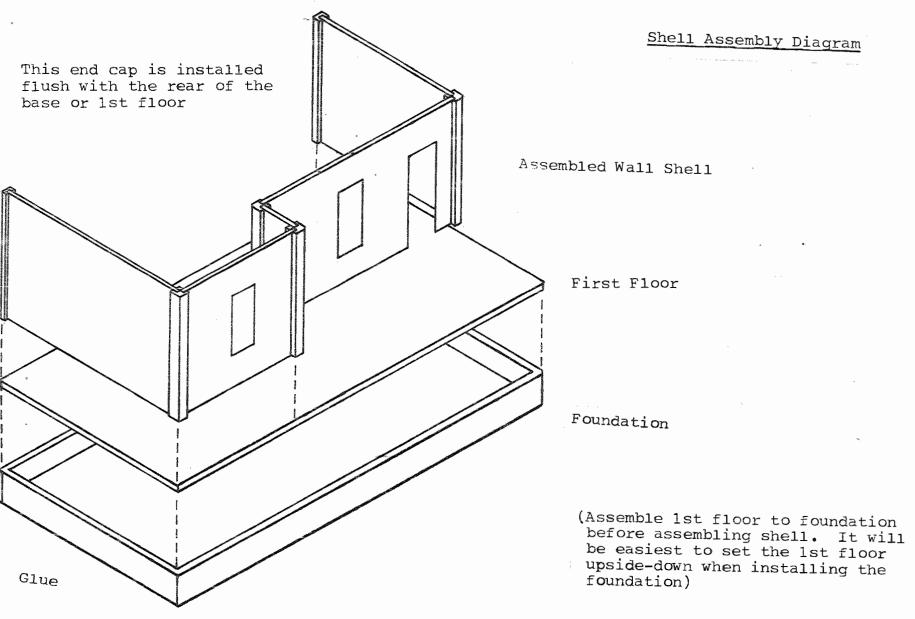
- 22) The dormer sides should be assembled to the front roof sections prior to roof assembly to facilitate installation.
- 23) Refer to Figures 7 & 7A prior to the dormer side assembly.

Select the front roof sections from your kit using Figure 1 as a guide.

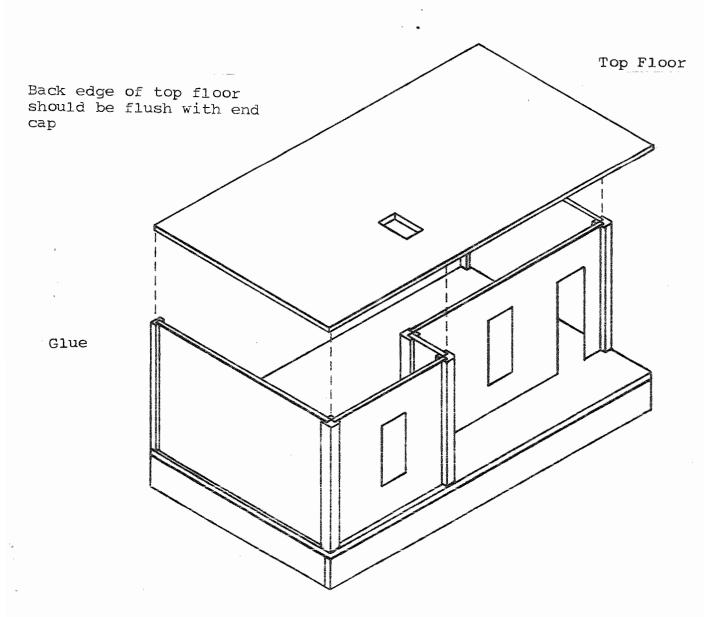
The dormer units are individually kitted and bagged.

The roof sections are beveled at the top and bottom and and should be positioned good side up on a flat surface.

Glue the dormer sides to the roof sections as shown in Figure 7.

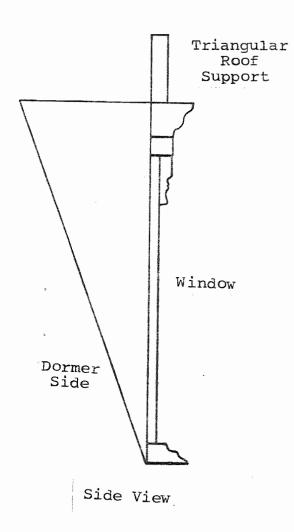


NOTE: Side foundation walls fit in between front and rear foundation. 1st floor should overhang foundation approximately 1/16 around entire perimeter



- 1) Apply glue to the top edge of the house shell
- 2) Install top floor over shell as shown
- 3) Weight down and let dry

DORMER ASSEMBLY



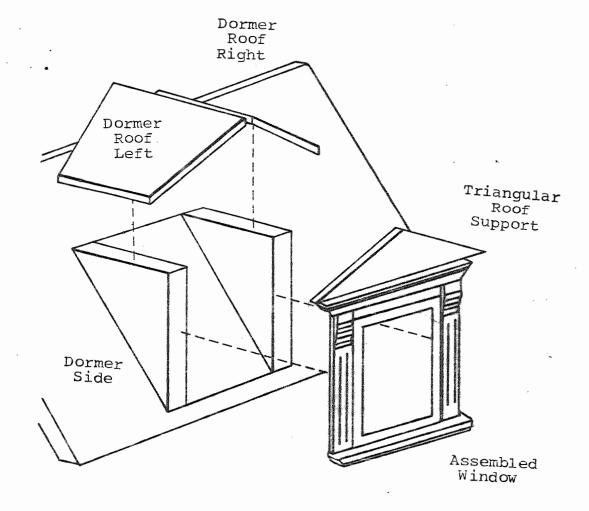


Figure 7A

Figure 7

- 24) You are ready to assemble the roof sections to the dollhouse after the dormer sides have dried.
- 25) Fasten several strips of masking tape near the edges of the roof sections allowing about 3 4 inches of the tape to overhang "flap-like".

Refer to Figure 8.

- 26) Apply a bead of glue to the front edges of the L & R side roof to be glued.
- 27) Position the roof sections excluding the top roof on the second floor as shown in Figure 9.

Tape everything together as shown in Figure 8.

- NOTE: Be sure to apply the glue generously and at this point don't be too particular about true positioning. Just be sure the roof-sections stand up in their approximate final position.
- 28) Apply a generous bead of glue to the top of the roof sections just installed and place the top roof into position as shown in Figure 8 and tape everything together.

29) <u>NOW</u> adjust the roof sections into their final positions.

Apply glue to bottom edges of roof sections and weight down to assure good adhesion.

Be sure and wipe off all excess glue before it sets-up.

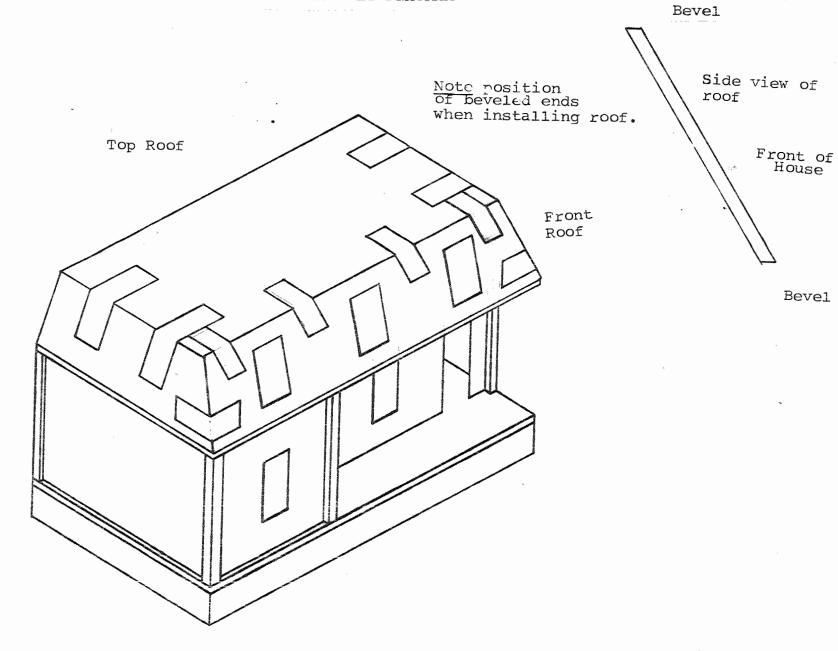
- 30) The top roof should be lightly weighted down to assure good adhesion.
- 31) The basic structural assembly of the dollhouse is now complete.
- 32) Excellent finishing results can be obtained by painting the trim parts, windows and doors of a dollhouse before assembling.

However, finishing the parts before assembly does make the assembly process more difficult. For instance, not all types of glue will adhere to a painted surface.

It is probably best for the novice dollhouse kit builder to assemble the individual components first and then paint.

CAUTION:

Store your dollhouse in a room where temperature and humidity remain constant. Extreme atmospheric changes such as high humidity or very dry conditions cause severe warping or splitting.



Masking Tape

Left Side Roof

Figure 8

Beve1

These components can then be glued into place on the dollhouse after painting.

Painting Note: The house and the components can be painted with any good quality latex or oil-based paint.

Prime the wood first and sand after priming if any grain is raised on the wood during priming.

- 33) All the house trim parts, the methods of assembly and their eventual location on the doll-house are illustrated in Figure 3, 9, and 10.
- 34) The railing units are assembled as shown in Figure 3.

Apply a dab of glue to the bottom of each dowel and install as shown. Use approximately ½" spacing between dowels and keep the spacing uniform.

Be sure the dowels are perfectly upright and perpendicular.

Install the top railing only <u>after</u> the dowels have dried.

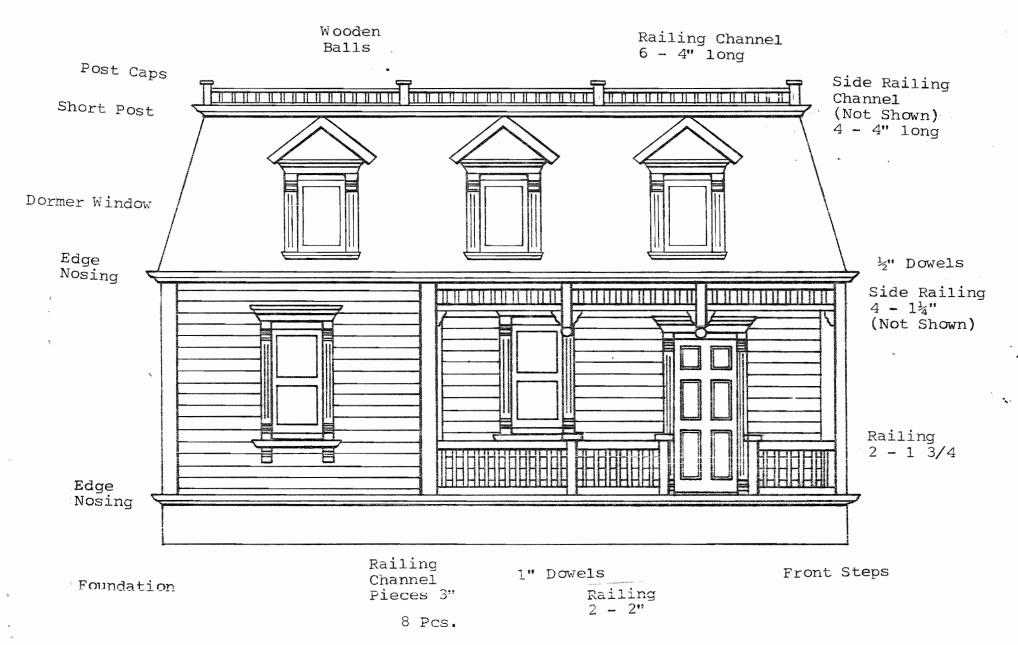
35) The wooden balls and post caps are glued to the top of the short posts as shown in Figure 3.

Sand a small portion of the ball if necessary.

36) After all the railing sets have been completed, install them into position on the dollhouse.

Refer to Figure 10 and the photograph of the completed house on the cover to aid you in locating the proper positioning for all the trim.

EXTERIOR TRIM INSTALLATION



37) Install the edge nosing as shown in Figure 9.

The edge nosing is designed to cover the end grain of the ply-wood floors and overhang down below the floor. This will cover up any spacing between the floor and the clapboard siding.

The edge nosing should be glued into position so that the top of the nosing is flush with the floor as shown in Figure 9.

NOTE: Always start gluing at the back edge of the dollhouse and work your way across the front to the other end of the house.

- 38) Partitions can be installed into the house and glued into position after wallpapering if desired. Weight down from above if necessary.
- 39) Assemble the interior staircases and front steps using the stair assembly instruction. Page 7, Figure 3.

The stairs are not glued into position until after they are finished to facilitate painting, staining or carpeting.

40) The dormer units can now be completed.

Refer to Figures 7A & 7.

The dormer windows should not be glued into position until after painting.

- 41) The tongues at the bottom of the window openings may have to be sanded, cut or filed down in order to get the window to seat properly.
- 42) CONGRADULATIONS !! Your set-up is now complete, enjoy your new Batrie Dollhouse. You may now begin decorating.

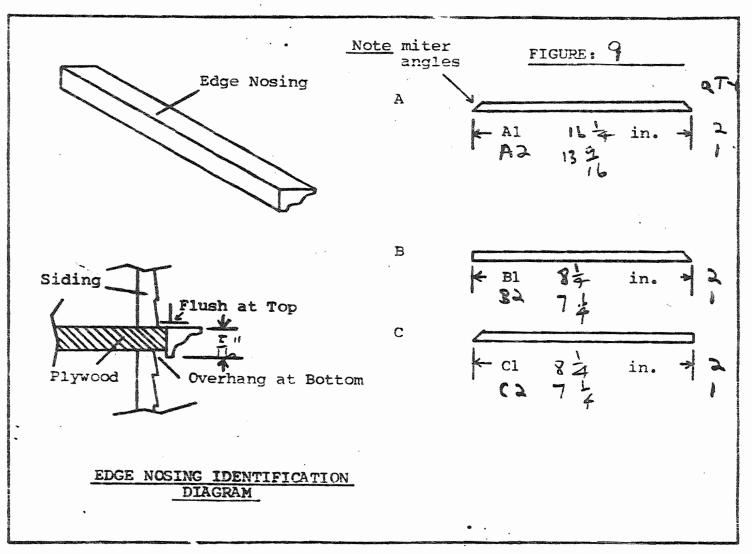


FIGURE 9