QUINCY ENGINEHOUSE

Kit No. 401 ASSEMBLY INSTRUCTIONS

The Quincy Engine house has been designed from prototype drawings and an article in Model Railroader Magazine (April 1963) by Don Sims. The Engine house is one of several structures from the article written about a short line which was laid in 1910 near the back-country town of Quincy, California in Plumas County. The railroad was still in use at the time of the magazine printing and we feel all of the various structures of the Quincy Railroad yard deserve to be reproduced in HO scale because of their functional adaptability. Our many thanks go to Mr. Len Thayer, General Superintendent of the Quincy Railroad Company and his crew who were very helpful and instrumental in obtaining dimensions and information pertaining to the buildings and structures of the Quincy yard.

Familiarize yourself with this kit: Before you begin your Engine house examine the parts and familiarize yourself with their locations on the model. Read thru the instructions and try to visualize each step before starting construction. The orthographic drawings are full size to enable the modeler to use them as templates when necessary. In using the drawings as templates first check them against the wood parts. Sometimes changes in humidity or temperature will cause the paper and wood to shrink or swell, making the drawings slightly out of scale. If the parts do not fit the drawings exactly work from the center, splitting the difference. Some of the wood parts are our "stock" sizes and must be cut to fit as construction progresses. Remember to use the stock length wood wisely. Do not discard any excess material after a part has been cut. Save all end-cuts and when cutting other parts use the shortest pieces possible.

Building a die-cut kit: If you have one of our older die-cut versions, we have found it most advantageous to cover the inside surfaces with masking tape. All wooden Wall Sections that have die-cut openings need to be trimmed out by the modeler. This will lessen chances of splitting the Walls. The tape should be applied running the opposite direction of the wood grain. When the tape is in place trim out all of the die-cut openings using a very sharp knife. We recommend using X-acto, No. 11 Blade for all cutting and trimming. When all openings are cleared turn each part over and very carefully remove the tape. Now test fit the plastic parts in their respective openings. Trim the wood again if needed for proper fit, but do not glue any plastic parts in place at this time.

Building a laser-cut kit: Most of our kits have now been converted to laser-cut. The materials used in these newer kits are the same as in our traditional (sometimes call die-cut) kits of the past. The parts (walls, floors, and roofing material) have been laser-cut for you. These parts are held into a frame by a small bridge of wood or cardstock. Cutting this bridge releases the part from its frame. Then slightly sand that “bridge-area” for a smooth edge. As you can tell, laser cutting causes the edges of the material to have a slight carbonized edge, which is normal. You can remove this carbonized edge by lightly sanding the edge with sandpaper backed on a flat board.

Weathering your kit: Whatever wood parts are to be stained should be done **BEFORE** construction begins since the glue will seal the wood fibers and the stain will not "take" at these Joints. A weathered, dirty stain is recommended for the Floor and Pit area of the Main Building. If the large wood-sided Shed portion of the Engine house is to be painted in contrasting colors, that is, the trims different from the body of the structure, we suggest painting these parts now. A darker color for the trims (Doors. Windows, etc.) would be good in contrast to a lighter color for the grooved siding. All of the exterior wood parts may need to be rubbed lightly with steel wool after the first coat of paint or stain to help obtain a smooth finish and then covered with a second coat. Paint the plastic Windows and Doors at this time also. When painting these plastic parts use a paint that will not "attack" them.

Preliminary cutting: Cut out all of the Wall, Roof and Freight Door pieces from the Cardstock. Be sure to notch the lower edge of Roof H as drawn to allow the small Corrugated Shed Roof J to fit snugly when all Roofs are installed on the building. Use a pencil and identify each Wall or Roof Card on the inside with its appropriate letter (A, B,

etc.). Do this lightly and in an upper corner where it will not show when the building is completed. Trim out all of the Window openings only. When all are cleared check the fit of the plastic parts. If necessary re-trim the openings for proper fit, but do not glue any of the plastic parts into place yet. The plastic Doors should fit into their openings, the door height openings maybe 1/16" too short. This is to compensate for the Lower Horizontal Wall Supports (A15) which will extend below the Wall when installed later.

Use the template drawings as dimensional guides and mark the inside of the Main Building Walls B, C and D for the locations of the Vertical Wall Studs (A22).

Corrugated Aluminum: Examine this kit carefully and note that there are several scale heights of Corrugated Aluminum provided for the Cardstock Walls and Roofs. These Cards are lined and noted as to the sizes to be used on each particular Wall or Roof. There is also an "overlap" area between each horizontal row of Aluminum which is indicated.

Also notice the longer wood strips have been bundled and are not packaged in the plastic bags because of their length. These strips are of different dimensions and are not to be mistaken for being all the same size.

STEP 1 THE CORRUGATED ALUMINUM

The Corrugated Aluminum is very easy to work with and will have a clean edge if cut with a very sharp knife. Use several light strokes as opposed to one firm stroke to cut thru the material. We do not recommend cutting with scissors.

For bonding the Aluminum to the Cardstock use either Walther's "Goo", Wilhold's "RC56" or a 2-part 5-minute epoxy. Commercial white glues such as Elmer's are not at all satisfactory for use with Aluminum.

If you prefer to lay your Corrugation in one sheet across the length of the Walls then this can be easily accomplished by simply gluing the strips of Aluminum to the Cardstock and then cutting off the excess according to Diagram 1 following the basic trimming instructions. However, the building will have much more character and realism if the Aluminum is cut in scale width panels and glued to the Cardstock, each panel vertically lapping the other.

Most prototype Corrugation comes in 26" widths so when overlapped they cover a 2 foot section. Begin by cutting all of the Aluminum into scale 26" panels (approximately 5/16" wide).

STEP 2 CORRUGATING THE WALL CARDS

A	1 pc.	Cardstock	Main Building Gabled Front Wall
B	1 pc.	Cardstock	Main Building Gabled Back Wall
C	1 pc.	Cardstock	Main Building Left Side Wall
D	1 pc.	Cardstock	Main Building Right Side Wall
E	1 pc.	Cardstock	Shed Front Wall
F	1 pc.	Cardstock	Shed Back Wall
G	1 pc.	Cardstock	Shed Side Wall

On Walls A and B it is absolutely necessary that the Aluminum panels are glued in place to extend 3/32 to 1/8 inch past the width of each Wall Card on each side. On Walls E and F it is necessary that the Aluminum extend past the Card on the short side of each Wall (see the Diagram below). The long side edge of Cards E and F will be flush cut.

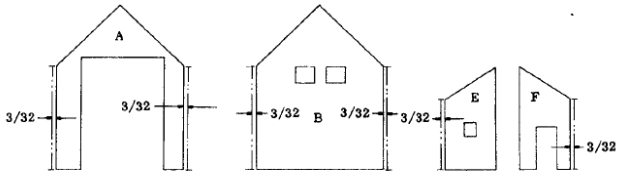


Diagram 1

This excess width will be folded around the corners of the buildings when the Walls of each structure portion are assembled. Glue the Corrugation completely over all of the window and door openings. Also do not attempt to follow the gable angles or any angle-cut tops with "precut" Aluminum simply use full-sized pieces and when all of the material is glued to the Cards and is thoroughly dry the door and window openings will be cleared and all angles trimmed.

To corrugate all Wall Cards begin at the bottom of each Cardstock piece aligning the top edge of the Corrugation with the line indicated for that row. Lay the panels vertically lapping each other by about two or three "ribs" in a horizontal row. When the bottom row is complete move up the Wall to the next row aligning the top edge of the material on the proper line and vertically lapping each panel in another horizontal row. Continue up the Wall with as many rows of Corrugation as is indicated until the Wall is complete. Omit Aluminum in all areas noted. With all Walls Corrugated turn them face-down on a piece of waxed paper and weight them so they will not warp. When all are thoroughly dry clear all window and door openings and trim all top angles flush with the Card edges, but remember to leave the "wrap-around" extensions on the sides of Walls A, B, E and F,

STEP 3 CORRUGATING THE ROOF CARDS

H	2 pcs.	Cardstock	Main Building Roof sections
I	1 pc.	Cardstock	Wooden Shed Roof
J	1 pc.	Cardstock	Corrugated shed Roof

The Roof Cards are corrugated in the same manner as the Wall Cards except that an excess of 1/32 inch of material should extend past the bottom and side edges of each Card. At the peak (or top) of Roofs H the Aluminum will be flush. Omit Aluminum where noted on Roof H. In the case of Shed Roof I where it intersects with the non-corrugated portion of Roof H, the Aluminum of Roof H will be brought over the Shed Roof I top edge to cover the joint of these two Roofs when they are installed on the building later. (Refer to the Isometric Drawings). Thus do not glue the bottom edges of the Corrupted panels which are above the non-corrugated area, to the Card, but leave them free so they-can be lifted over the top edge of Roof I. When the Roof Cards are complete place them all face-down on waxed paper and weight to dry. When thoroughly dry flush-cut all top (or peak) edges if necessary.

STEP 4 CORRUGATING FREIGHT DOOR K

K	1 pc.	Cardstock	Wooden Shed Freight Door

Corrugate this small Door using the necessary amount of 8 HO foot panels and applying them in the direction of the arrowhead line. Weigh to dry flat. The Main Building Swinging Doors will be constructed and corrugated later.

STEP 5 THE INSIDE HORIZONTAL AND VERTICAL WALL SUPPORTS

A15	3 pcs.	1/8 x 5/32 x 11"	Main Bldg. Inside Lower Horiz. Supt. material
A22	9 pcs.	1/8 x 1/8 x 11"	Inside Wall Support and Stud material

Look closely at the detail drawings (noting that all Horizontal and Vertical Supports are shown toned) and notice that the Lower Wall Horizontal Supports (A15) extends below the Cardstock Walls. On one wide side of each piece of A15 material measure off 1/16", then with a soft-lead pencil and a straight edge draw a guide line on the wood strips. On the inside of Walls C, D and G measure in 3/32” from each side and mark at the top and bottom. On the inside of Walls A and B measure in 3/64" from each side edge and make a mark. On the inside of Walls E and F measure in 3/64” from the short side edges at the bottom of the Cards and make a mark. Cut pieces of the A15 wood to fit the length of the C, D and G Walls within your marks. Glue the A15 wood strips to the inside, lower edges of the Walls aligning your pencil lines with the bottom edge of the Cards thus allowing the 1/16" edge to extend below the Card. Cut the Lower Horizontal Supports for the bottom edges of Cards A, B, E and F from another A15 strip and glue to the inside of the Cards within your marks on Walls A and B, and between your mark on the short side and flush with the long side edge on Walls E and F. Allow these Supports to extend below the card bottom edges 1/16".

Cut pieces of the A22 wood to fit between your marks at the top of Walls C, D and G. Glue these flush with the Card top edges.

From more of the A22 wood cut the Studs for between the Upper and Lower Supports and glue those in place vertically within the lines made earlier.

Using more of the A22 wood cut the remainder of the Horizontal and Vertical Support and Stud pieces for Walls A, B, E and F per the Front and Back Detail Drawings according to the toned area. Make certain the Vertical Corner Supports of Walls A and B are indented 3/64" from the Card's edges also. Glue all supports in place.

Paint the inside of your Walls with Lettering Grey, the color of your choice or stain the inside surfaces of all Walls.

STEP 6 PAINTING THE CORRUGATED ALUMINUM

In the past, we recommended using Floquil paints, but Floquil was purchased by Testors. Testors has a full line of acrylic paints, so you might try these. In any case, give the Aluminum Roofs and Walls an even spray coat of Testors Dullcote. The Aluminum has a tendency to be slippery and the Dullcote will give a little texture so the paint will hold. When the Dullcote is dry paint the Roofs and the Walls with Testors Southern Pacific Lettering Grey. This light Grey paint will give the aluminum an "oxidized" look and will serve as a good base coat if you have chosen to give your buildings that "rusted" effect. Wait until the paint is thoroughly dry and lightly spray the pieces again with Dullcote. Let this dry, and then if you wish the "iron" look use a railroad weathering paint. Use a "dry-brush" technique and add Rust to the panels by brushing up with single, uneven strokes from the bottom edges to about the center of each panel. With the panels overlapped some dirt would have accumulated. Thus, dry-brush Grime and Weathered Black at the edges of the overlap seams. Do not over stroke as this will cause the paint and spray to lift from the Aluminum leaving shiny streaks. Now before the weathering colors have a chance to "set-up" completely, use a thin wash of Lettering Grey and stroke over each panel carefully, blending the colors and eliminating the blotchy look.

STEP 7 INSTALLING THE PLASTIC VINDOWS AND DOORS

B1	4 pcs.	Plastic	#902 Windows
B2	5 pcs.	Plastic	#903 Windows
B3	2 pcs.	Plastic	#916 Doors

Install the plastic Windows and Doors in their respective openings in the cardstock Walls. The Doors will protrude at the bottom of the openings about 1/16". Cut the acetate per Figure 1 and attach to the inside of each Window Frame to resemble "glass panes".

STEP 8 ASSEMBLING THE WALLS

Glue Wall C to the left of Front Wall A. Glue Wall D to the right. Glue the Back Wall B to the opposite ends of the Side Walls all per the Plan View and being certain that the Cardstock corners fit together as drawn. Fold the excess Corrugation around the corners to cover the joints. Glue it flat.

Glue the three Walls of the small Shed (E, F and G) together as in the Plan View. Fold and glue the excess Corrugation around the corner joints.

STEP 9 THE WOOD WALLS

A1	1 pc.	3/64 x 1-3/4 x 2-21/32"	Lower Front Wall section
A2	1 pc.	3/64 x 1-3/4 x 2-21/32"	Lower Back Wall section
A3	2 pcs.	3/64 x 1-3/4 x 3"	Upper Front and Back Wall Sections

With the Wall sections all turned grooved-side-down edge glue A1 to A3 and A2 to A3 per Figure 2. When dry, temporarily attach each Wall unit over its drawing. With a pencil and straight-edge draw the lines indicated as a-a, b-b and c-c across the wood aligning the straight-edge exactly on the lines. Remove from the drawing and now use a sharp knife with the straight-edge and cut away the toned portions indicated as "waste".

STEP 10 THE CORNER POSTS

A13	1 pc.	5/32 x 5/32 x 3"	Corner Post material

Presuming the wood parts have all been painted or stained and the die-cut openings for the Windows have been trimmed as instructed in the beginning, then the Corner Posts can now be glued to the Walls. Begin by cutting the

Comer Post material in half. Glue a Corner Post to the short, right side edge of the Front Wall unit (A1-A3), and then glue a Corner Post to the short, left edge of the Back Wall unit (A2-A3). Keep all Walls and Posts flush along the bottom edges allowing the excess Post to extend at the top. When all glue joints are thoroughly dry use a razor saw or sharp knife to trim the tops of the Posts to the Wall angle.

STEP 11 THE INSIDE WALL SUPPORTS

A4	1 pc.	3/64 x 1-1/4 x 7-11/16"	Left Side Wall
A22	3 pcs.	1/8 x 1/8 x 11"	Support material

On the inside of the wooden Front, Back and Side Wall (A4) cut and add the Wall Supports using the A22 wood and the toned areas of the Detail Drawings for reference. When installing the Supports to the top and bottom edges of WallA4 leave 3/32" clearance at each side edge to allow for the Corner Posts when the Walls are glued together.

STEP 12 THE PLASTIC WINDOWS

B1	6 pcs.	Plastic	#902 Windows

Glue the Windows into their openings in the wooden Walls. Attach the acetate on the inside for "glass panes".

STEP 13 THE RAFTERS. TIE BRACES AND ROOF BEAM

A17	1 pc.	1/16 x 5/32 x 10-3/4"	Roof Beam
A18	7 pcs.	1/16 x 1/8 x 9-1/4"	Rafter and Tie Brace material

Trim the Roof Beam to fit between the Supports on the Gabled Front and Back Walls (A and B) at the peak. Before gluing it in place mark each side of the Beam where the Rafters will intersect using the drawing as a dimensional guide. Mark the Upper Supports of the Side Walls (C and D) also for the Rafter placement to correspond with those marks on the Beam. Glue the Beam in place.

Using the A18material construct the Rafter/Tie Brace Assemblies using the Figure 3 Template. Begin by attaching the Template to a fiat working surface. Tack or tape waxed paper over the Figure. Use one strip of wood for each Rafter/Tie Brace Assembly. Cut the two angled Rafter Sections first. Glue them over their drawing counter Parts on top of the waxed paper with tiny dabs of glue. Cut a Tie Brace and glue it to the Rafter following the drawing outline. When the glue has set remove the Unit carefully from the paper, turn it over. Cut and glue another Tie Brace to the other side of the Unit. Construct six more Rafter/Tie Brace Assemblies in exactly the same manner. Set them all aside for now to dry thoroughly.

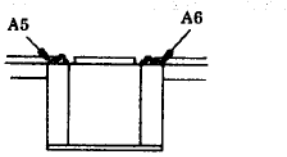
STEP 14 THE FLOOR

A5	6 pcs.	3/64 x 1-3/4, x 1"	Main Bldg. Floor Sections
A6	6 pcs.	3/64 x 1-3/4 x 13/16"	Main Bldg. Floor Sections
A7	1 pc.	3/64 x 11/32 x 2-9/16"	Main Bldg. Floor Section
A23	2 pcs.	3/64 x 1/8 x 10-3/8"	Floor Filler strips (HOn3 only)

Using Figure 4 if your model is Standard Gauge or Figure 5 for H0n3, attach the drawing sheet to your working surface and tape waxed paper over it.

NOTE: If you plan to use Code 100 rail, assemble the Floor as follows, but do not bevel either the Floor Sections or the Filler Strips as will be instructed.

If you are using Standard Gauge with Code 70 rail rather than HOn3, then on all of the A5 and A6 Sections bevel one of the longer edges on the ungrooved side to accommodate the base of the rail, refer to the Front View. Pit portion and configuration below.



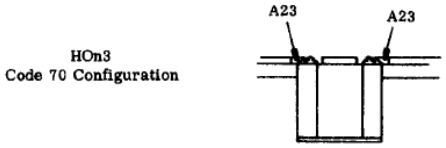
Standard Gauge
Code 70 Configuration

Using tiny dabs of glue, glue five A5 Floor Sections to the paper and edge-glue to each other. Trim the sixth A5 Section per the template drawing and edge-glue to the other as drawn, all of these aligned over their drawings and with the beveled edges along the Pit perimeter.

Glue five A6 Sections together over their drawings and edge-glue to each other. Trim the sixth A6 Sections per the drawing and edge-glue to the others as drawn, these aligned with their beveled edges along the Pit perimeter also.

Now place the A7Section over its location pushed up to the trimmed A5and A6 Sections. Now edge-glue A7 in place as drawn.

If your model is HOn3 and Code 70 rail, assemble the A5. A6 and A7 Floor Sections as above but do not bevel the edges. Instead, bevel one side of each Filler Strip (A23) to allow for the base of the rail. Glue the Filler Strips to the inside edges of the Floor with the beveled edges down. Refer to the diagram below.



Weight the Unit to dry fiat. When thoroughly dry remove from the waxed paper. Test-set the building on top of the Floor. Trim the outside edges of the Floor if necessary so it will fit snug inside the Wall Lower Supports.

STEP 15 THE PIT

A10	1 pc.	3/64 x 15/16 x 8-5/8"	Pit Floor
A11	4 pcs.	3/16 x 11/16 x 19/32"	Pit End Walls
A16	2 pcs.	3/16 x 11/16 x 10-5/8"	Pit Side Walls

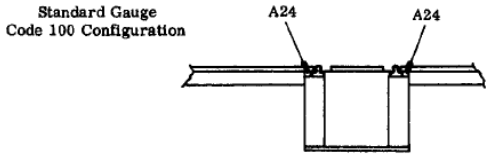
For Standard Gauge construction use the toned areas of Figure 4 to assemble the Pit. Set one long Side Wall on edge over its drawing. Glue the four End Wall Sections (2 inner and 2 outer) according to their outlines and then glue the other long Side Wall in place. Glue the Pit Floor (A10) grooved-side-down, glue to the tops of the Inner End Walls and the Side Walls.

For HOn3 construction, first it will be necessary to cut the four End Wall Sections (A11) to lengths of 11/32" each, then proceed with the Standard Gauge instructions above.

STEP 16 RISERS FOR CODE 100 RAIL

A24 2 pcs. 1/32 x 1/16 x 10-1/2" Riser Strips (Code 100 Rail only)

If you plan to use Code 100 rail then the A20 Risers must be added at this time. Turn the Pit Assembly over (Floor-side-down). Refer to the configuration below and the Code 100 Rail Isometric Configuration. Glue the Riser Strips along the outside edges of both Pit Side Walls as shown.



STEP 17 JOINING THE FLOOR AND PIT

A22 3 pcs. 1/8 x 1/8 x 11" Floor Support material

Turn the Floor Unit grooved-side-down. Turn the Pit Unit Floor-side-up. Align the Pit on the Floor using the drawings as reference. When the glue has set use Figures 4 or 5 as a guide and cut the Floor Supports from the A22 material, then glue these pieces to the ungrooved side of the Floor Unit, flush with all outside edges as drawn and toned.

STEP 18 ADDING THE RAIL

When the Floor/Pit Assembly is dry turn it right-side-up and test-fit strips of rail (not included in the kit) in place. Cut two rails a few inches longer than is needed for the Pit area so they will extend past the Door and allow ample length to connect outside of the structure. Taking care to maintain the proper gauge between the rails, glue them to the tops of the Pit Side Walls as shown in the drawings, pushed into the bevel of the Floor sections or the Filler Strips for Code 70 rail or against the Riser Strips under the Floor if Code 100 rail.

STEP 19 THE FLOOR SUPPORTS, FLOOR FILLERS AND STEPS

A8	1 pc.	3/64 x 1-3/4 s 15/16"	Main Bldg. Floor section
A9	1 pc.	3/64 x 1/2 x 15/16"	Main Bldg. Floor section
A12	1 pc.	1/32 x 1/8 x 2"	Step Tread material
B4	1 pc.	Plastic or wood	#933 Step Stringer

Referring to the correct drawing for your gauge model (Figure 4 or5) notice the A22 Support pieces which fit between the Pit Inner and Outer End Walls and are flat against the Pit Side Walls adding support to the Floor Filler sections (A8 and A9). Using any A22 material which remains from Wall Supports and Studs, cut it to fit your model and glue the pieces in place flush with the top edges of the Pit Walls.

Using the Plan View or Figure 4 or 5 as a guide, glue the Floor Filler sections A8 and A9 in place on top of the Pit End Walls and the Supports on the Side Walls, centered between the rails as drawn.

Cut the Step Stringer (B4) into two sections per the Template Figure 6. Fasten a small piece of Scotch Tape, sticky-side-up, over the Stringer Plan View in Figure 6. Push the Stringer's back edges to the tape over their drawings.

From the A12 material cut five Treads, each 3/8” long, Begin at the bottom and glue these Treads to the Stringers with one edge flush with the outside of the left Stringer and the overhang on the right Stringer side. Allow the Unit to dry thoroughly before removing from the tape. Glue the Step Assembly into the Pit as in the drawings.

STEP 20 INSTALLING THE RAFTER/TIE BRACE ASSEMBLIES

Now glue all seven Rafter/Tie Brace Assemblies in place to the Roof Beam and to the top of the Upper Supports of the Side Walls. Align the peaks of the Rafters with the marks on the Beam and the Rafter-ends with the marks on the Supports.

STEP 21 INSTALLING THE FLOOR/PIT ASSEMBLY

Test-fit the Floor inside the Wall Assembly. If satisfied with a perfect fit glue it inside the Walls making sure the bottom edges of the Lower Wall Supports and the bottom edges of the Floor Supports are exactly flush on the underneath side. Or as an alternative do not glue the Floor and Wall Assemblies together but leave them as separate units installing the Floor/Pit Assembly in your layout and allowing the Wall Assembly to be removable to make cleaning the track inside the structure easier.

STEP 22 THE LARGE SWINGING DOORS

A19	3 pcs.	1/32 x 1/16 x 10"	Door Frame material
B6	4 pcs.	Plastic	#935 Hinges

Attach the Door Frame Template, Figure 10 to your working surface. Tack or tape a small piece of waxed paper over it. Using the wood provided, construct the Frame as drawn. Begin by cutting one left, one right and two center Vertical Strips and glue these over their drawing locations to the waxed paper within their outlines. Cut the top, bottom and center Horizontal strips. Glue these between the left and center Vertical pieces and between the right and center Vertical pieces. Now, cut the four remaining Horizontal Frame sections, two for the upper quarter of the Doors and the other two for the lower quarter. Glue these in place. While the Frame dries thoroughly paint both sides of six 12 HO foot Aluminum panels and six of the 8 HO foot panels.

Glue the Corrugated Panels to the Frame, gluing the 12 foot pieces to the bottom portion of each Door and the 8 foot pieces along the top portion overlapping the taller bottom panels. (Refer to the Isometric Drawing).

When the Door Units are thoroughly dry release the waxed paper from the drawing and very carefully remove the Frames from the paper. Turn the Frames over, cut and add the Diagonal Bracing to the Frames per the drawing. These Bracing strips are not alike on each Door, therefore there is a definite left and a definite right.

Place the Doors side-by-side, corrugated-side-out as they will be when installed in the Front Wall opening. Gently run a strip of masking tape thru the center, horizontally on the front of the Doors to hold them together temporarily. This tape should have excess on each side of about 1/2". With light pencil lines mark the Corrugated side of the Doors even with the upper and lower Horizontal Frame Bracing for the locations of the four Hinges. Now set the Doors in the opening allowing the masking tape to extend on the Front Wall to hold the Doors in place. Remove the Hinge sections from the sprue. Fit the long Hinge into the dimple in the back of the Hinge Bracket. Glue the Hinge Assemblies in place over your pencil marks with the Bracket portions glued to the Front Wall and the Hinge portions glued to the Doors as in the Front View drawing. Allow these to dry thoroughly before removing the tape.

STEP 23 INSTALLING THE MAIN ROOF AND SMALL SHED ROOF

If the Main Roof sections H have not been painted on the inside do so at this time. Lettering Grey or a color of your choice will be fine.

Glue the small Roof J on top of the Corrugated Shed at the left of the Main Building with equal overhang on the Front and Back and the Roof' 8 highest edge pushed up flush to the left Wall C but not exceeding its height. If you intend to light the Main Building on the inside do so at this time.

With the two Roof Cards H face-down, butt the top edges at the peak. Tape this joint with Scotch Tape. This makes handling the peaked Roofs easier. Test-set the Roof on the Main Building with the non-Aluminum portion aligned with the Right Wall D. If satisfied with a perfect fit glue Roof H on the structure keeping equal overhang on the Front and Back and with the corrugated panels of the notched lower left edge extending over Roof J to cover the joint.

STEP 24 JOINING THE MAIN BUILDING AND WOODEN SHED

Gently lift all corrugated panels of the left side of Roof H along their bottom edge to allow for the points of the Front and Back wooden Walls and Roof I to be pushed under. Test-set the wooden Shed Unit to the Main Building Right Wall placing it over the non-Aluminum Card portion. It will be necessary to notch the eaves of the Main Building Roof so the wooden Shed Front and Back Walls will fit flush to Wall D and Roof H. Mark the Roof accordingly then trim it per your marks. Glue the wooden Shed Unit to the Main Building. Test-set the Roof I in place on top of the wooden Shed. Glue it with equal overhang at the Front and Back. When thoroughly dry flatten the corrugated panel ends of Roof H over the top edge of Roof I to cover the joint. Glue these edges flat.

STEP 25 THE CAP STRIP

A21	1 pc.	3/64 x 3/64 x 11-3/8"	Cap Strip material

Cut this strip to fit the length of the Main Building Roof and glue in the groove at the peak. If it has not been painted do so at this time and add a little weathering to blend with the corrugated panels.

STEP 26 THE SLIDING DOOR AND TRACK

K	1 pc.	Cardstock	Door K
A20	1 pc.	1/16 x 1/16 x 10"	Door Track material

Use the Front View, Wood Shed portion as a template and dimensional guide. First cut the Door Track from the A20 strip per the drawing. Glue it in place above the Door opening allowing it to extend past the right corner as drawn. From end-cut A22 material cut a vertical Support for the Door Track and glue to the right, back edge of the Track as shown. Glue the Corrugated Door K under the Track, closed or ajar as you wish.

STEP 27 THE SMOKE STACKS

B5 2 pcs. Plastic #934 Smoke Stacks

The Smoke Stacks are easily assembled and installed. Cut the bottoms of the Stack Pipes to the angle of the Roof. Now glue the Stack Caps to the top of the Pipes. Glue each Assembly on top of the Corrugated Roof gluing one near the peak on the left side toward the front and the other near the peak on the right side toward the back as in the drawings.

STEP 28 THE SHADE AND BRACKET

B7	1 pc.	Brass	#255 Light Shade
B8	1 pc.	1-1/2" galvanized	Light Bracket Wire

Use the Light Shade Bracket Assembly Template, Figure 7. With needle-nosed pliers form the Wire to the shape of the Bracket, Put a curl on the end that will be inside the Shade to keep it from falling off. Slip the Shade on to the Bracket and glue it to the curled end.

With a #61 drill make a hole thru the Corrugated Front Wall, centered above the Door and high enough so that the Shade will not hang lower than the door opening. Paint and weather the Shade Bracket Assembly before installation. Push the end of the Wire Bracket thru the hole in the Wall and with your finger bend the excess Wire down against the Wall on the inside. Glue the Wire to the Wall.

STEP 29 THE DRUM RACK

A19	2 pcs.	1/32 x 1/16 x 10"	Frame material
A20	1 pc.	1/16 x 1/16 x 10"	Leg material

Use Figure 8 as a template and refer to the Isometric Drawing to construct the Rack. Cut six Legs from the A20material. Use A19wood for the remainder of the Rack as Braces and Stops. Glue as many and whatever color Drums to the Rack as you prefer.

STEP 30 THE FENCE

A14	70 pcs.	1/32 x 1/8 x 1-7/8"	Fence Board material
A19	3 pcs.	1/32 x 1/16 x 10”	Fence Frame strip material
A20	1 PC.	1/16 X 1/16 X 10”	Fence Post Material

Cut the tops of all A14 Fence Boards on a 45 degree angle as in the Fence Board Cutting Template of Figure 9. Attach a strip of Scotch Tape, sticky side up, over the long and short Fence sections. Edge-glue the Boards together over their drawing counterparts pressing them to the Scotch Tape as you proceed. When all are in place use the "top frame" lines, which project on either side of each Fence Section drawing, to align the A19 strips. Use the A19 wood for the "top frame" gluing it on edge to the Boards. For the short Fence Section notice that the top and bottom Frames are indented on the right side. This is to insure a perfect corner Joint with the longer Fence when the two are joined as in the Fence Plan View.

Cut eleven Posts for the long Fence and two Posts for the short. Use the A20 material. Glue these to the Fence Boards aligned vertically with the "post" lines and setting each Post under the top Frame strips and with their bottom edges extending below the bottom edge of the Fence Boards. When all Posts are in place, dry cut and glue the Lower Frame sections between the Posts per the "bottom frame" projection lines using more A19 wood.

Remove the Fence sections from the Scotch Tape and glue them together per the Fence Plan View fitting the ends together to form the comer as drawn. Drill holes in the layout to accommodate the Fence Posts and glue the Fence in place.

20191020 tdm