

1 The Basics – Modeling Tips and Techniques

Over the years I have discovered and rediscovered techniques for building scale models that have greatly advanced my modeling skills. I have condensed and refined them for presentation in this book so that anyone can use them with success. All the tips, techniques, and procedures presented in this book have been tested and proven over and over. Good luck—and remember that modeling is what you make it, so just have fun!



Tools. I like to keep my workbench neat and organized. Since armor kits can have a lot of parts and subassemblies, I use plastic storage boxes for organizing them. These covered bin organizers are usually found in the sewing sections of arts and crafts stores. I also make sure that I have ample supplies of new number 11 X-acto blades, an X-acto stencil knife, and single-edged razor blades.

Various grades of waterproof sandpaper ranging from 150 to 600 grit, various grits of sanding sticks, and a Flex-I-File are a must. A great place to find sanding sticks is the nail care section of your local drug or grocery store. Testors and K&S Engineering market waterproof sandpaper, and you can also find large sheets of it at automotive supply stores.

For basic scratchbuilding you will need a NorthWest Short Line plastic chopper and the same company's True Sander; a good supply of Evergreen rod, strip, and sheet stock; and various small diameters of brass rod. Drill bits are a must as well, for either a twist drill or a pin vise. Micro Mart and Model Expo are great supply sources for basic supplies, drill bits, and all kinds of tools.

For glue I like cyanoacrylate cement (commonly called "super glue"). You can get super glue that is as thin as water or as thick as pancake syrup. I also keep new tubes of Testors glue on hand. White glue is an excellent filler, and it works well for gluing clear parts. For fillers I use Testors gray putty and automotive putty. For weathering I use Polly-S weathering paints and pastel pencils. For decal application I use decal setting solution.

A Waldron Punch Tool is a good piece of equipment to have; it has a thousand and one uses. Bare Metal Foil's plastic panel scribe is also a fine tool for cutting and scribing plastic. Testors Metalizer paints are great for painting vinyl tracks. Testors Dullcote is good for sealing decals and pastel pencil dust, as well as toning down drybrushed silver paint. For masking I use Scotch 3M painter's masking tape. It can be cut into thin strips, it has excellent adhesion, and it will also stretch a little. Additional tools and supplies are mentioned throughout the text and photo captions.

Techniques. To have a successful experience building scale models, it's important to study the instructions first and become familiar with all the parts and assembly sequences. I decide how I will assemble the kit, and I use the instructions only as a guide. This is an important point because the assembly sequence that you should follow will depend on the color scheme, details you may want to add or changes you may want to make to the kit, and how you want to deal with any problems you have identified. At this time, I also assemble reference material that I want to use for detailing and painting.

When removing parts from "trees" (sprues), be careful how you cut them off, because this is the first step in seam

removal. If you snap off the parts, you will most likely damage them, which means repair work either to the part or extra work to fill a seam. I spend a lot of time test-fitting parts to find out where the fit problems are. I also tape together the main parts to get a feel for the size of the model and how it will look when completed. Every model is different. No matter who the manufacturer is, each model has its unique fit problems and minor flaws. Whatever the problem, however, there is always a simple solution.

Check each part for a mold line and carefully scrape off this line with the tip of a sharp number 11 X-acto blade. For parts that are glued together, check the gluing surfaces—you will sometimes find small injection marks that must be flattened. Check the fit of these assemblies, because the locating pins are not always correct. Sometimes you can get a better fit by removing the pins and running the part halves across a stationary piece of sandpaper to flatten the gluing surfaces.

To glue parts together I secure them with small lengths of masking tape and then apply super glue along the seam line with a thin wire applicator between the masking tape areas. The capillary action of the super glue draws the glue down into the seam surface area, resulting in a very strong bond. Once the glue is dry, I remove the tape and apply glue to the remaining areas. I then carefully scrape and sand the seam line. To check for flaws in my seams, I apply silver paint to highlight them. I apply more super glue to these areas, scrape and sand them, and then remove the remaining silver paint with Polly-S Paint and Decal Remover. Be sure to wash the parts to remove any paint remover residue. Be careful when using Polly-S paint remover on resin—it will eat into the resin if you do not wash it off immediately after you remove the unwanted paint.

Sometimes the surfaces of parts have small, round indentations. These are from the injection-molding process, and there are several ways to get rid of them. If the round indentation is deep, you can fill it by punching out a thin plastic disk using a Waldron punch tool, gluing it in place, and then sanding it smooth. You can carefully scrape off shallow indentations using an X-acto stencil knife and then sand the surface smooth.

When you check the fit of subassemblies or when you glue parts to subassemblies that are already painted, you will sometimes find voids. The secret to dealing with these is to fill them with white glue applied with a thin wire applicator and then remove the excess with a damp cotton swab. Sometimes several applications are necessary to completely fill a void. Since the glue dries clear, it transmits the surrounding colors right through so well that you may not have to paint it.

Painting tips. I decide what color scheme I want and I assemble the paints and mix the colors, test them, and

make any necessary adjustments. Mixing the colors is also the first step in weathering. I always lighten any color paint that I am using, and I also mix small quantities of even lighter shades. Lightening the paint color ensures that the finished color will have a scale effect. As an example, olive drab is the color that would be applied to an actual tank. Since your model is smaller, the olive drab will appear too dark, so you will need to lighten it just a little. After I have finished applying the base color, I apply additional coats of the lighter color to simulate the fading effect the sun can have on horizontal surfaces and other areas that get direct exposure.

There are several simple steps in painting that are an absolute must if you want to get good results. First, you have to ensure that all parts are clean and free of sanding dust and residue. Give all the parts a cleaning with Ivory soap and warm water or Polly-S surface preparation cleaner. Give all metal castings and photoetched parts a final cleaning in mineral spirits or some other type of enamel-based thinner.

To get a quality finish, or to mix colors for various shades and fading effects, you cannot get by without an airbrush. I like to use a Badger 200 single-action airbrush. Since temperature and, to a large degree, humidity affect airbrushing, you should do all your painting in an environment where the temperature is moderate and the humidity is low. Generally, temperatures between 65 and 75 degrees are good, and humidity of no more than 55 to 60 percent is acceptable. The thinner that you use is also important; I always use the manufacturer's recommended thinners.

To get the most from each bottle of paint, drop a few copper BBs into the bottle to help mix up the sticky paint on the bottom. Thinning paint for airbrushing can sometimes be a trial-and-error process. Generally, I use a mixture ranging from 4 parts paint to 1 part thinner to 3 parts paint to 1 part thinner at 15 to 20 pounds of air pressure. I have tried a lot of different air supplies, and the easiest and quietest by far is a CO₂ bottle with a pressure regulator. While the setup cost is a little more than for a small compressor, the air is always dry, the air flow is consistent and adjustable, and it is quiet. A bottle typically lasts for two years or more. When you're painting a surface that has a lot of protruding parts, like a tank turret, I suggest that you use low air pressure (15psi or less). Low air pressure will help prevent the dusting or "orange-peel" effect that can occur behind a protruding part if you spray it from the front with high pressure. Paint particles dry before they land on the area behind a protruding part, causing the dusting effect.

When you are ready to paint small parts, secure them with masking tape on lengths of balsa or stiff cardboard sections so you won't be handling them. Give all parts a coat of primer first. The only time you shouldn't use primer is when you are using Testors Metalizer paints.

Primer provides a good adhesion surface for paint, and the primer color will also highlight any flaws, cracks, seams, and scratches you may have missed. If you do find any areas that need additional finishing work, let the primer dry for a few days, fix the problem areas, and then sand the surrounding primer using a minimum of 600-grit sandpaper. To blend in the unpainted and primer-painted areas, give the unpainted area a coat of primer first and then give the entire area a complete coat.

Don't rush the finish coats of paint. Let the paint dry for at least 24 hours before you handle the model or apply a second coat. Gloss paint takes longer to dry, and it may be several days before a gloss paint color like white really dries. If the surface smells like fresh paint, it's still drying.

Keeping your airbrush clean is also very important. I run thinner through the airbrush between colors and clean the tip. I also check the tip during a spraying session, because sometimes paint will build up around the edge and then splatter onto the surface. When each session is finished, I disassemble the airbrush and clean it using tissues, thinner, and pipe cleaners. To make enamel-based paint flow more smoothly, I sometimes warm the paint on a coffee cup warmer. I always keep the lid open a crack during the warming process so that pressure will not build up inside the bottle. The paint only has to be on the warm side to get it to flow smoothly.

If you are using spray paint, let the can rest upside down for a few hours, and then give it a good shaking. Spray paint can also be warmed by setting the can in warm water for a few minutes. Always test the spray paint before using it and clean the spray tip when you are done. To remove excess paint from the tip, hold the can upside down and spray until no paint comes out. If you are using a hand brush, thin the paint slightly so it will flow better. Paintbrush selection is also important. I use only natural-hair brushes that keep their shape. Clean your brushes after every use, and run them under hot water to reshape them.

Decals. The secret to decal application is to apply them to a gloss surface and use decal setting solution to get decals to snuggle up around surface details. If you used gloss paints you are ready to apply the decals; if you used a flat paint, you'll have to add a clear gloss finish. I have had a lot of success using clear gloss polyurethane paint, the kind you find in hardware or home supply stores. If you use polyurethane paint, you only need to thin it slightly to get it to work in an airbrush. Gloss surfaces will also allow you to slide the decal around to position it correctly.

Always cut decals free from their sheets using a sharp knife and a ruler. Cut off as much of the clear film as possible. For small decals, cut around the perimeter as close to the edge as possible. For large numbers or letters, cut out each one individually, remove all the clear film, and then

apply them one at a time. The trick is to ensure that they are lined up correctly. For curved areas like circles, use a series of tangential cuts to trim away the excess film. For straight cuts, use a metal ruler as a guide.

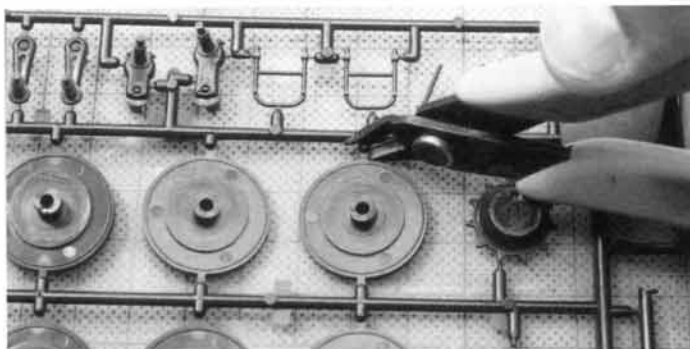
If the decal starts to dry while you are positioning it, moisten it with some water applied with a cotton swab. Let the decal dry when positioned, then apply coats of setting solution to the surface using a cotton swab. After a few coats the decal will soften and snuggle up around the raised detail. When you have finished applying all the decals, clean up the surrounding surfaces to remove water stains, and then add a coat of Testors Dullcote to protect the decals.

Weathering. The final step is weathering, but you have to be very careful not to overdo it. As I explained earlier, the first step in weathering is to ensure that the colors you use to paint the model are lighter than the actual colors. Once the decals are applied, you will have new-looking decals and faded paint, which will not look right. To fade the decals, apply a dilute mixture of water-based flat white or light gray paint to the surface of the model. Apply the diluted paint lightly and let it dry before applying more

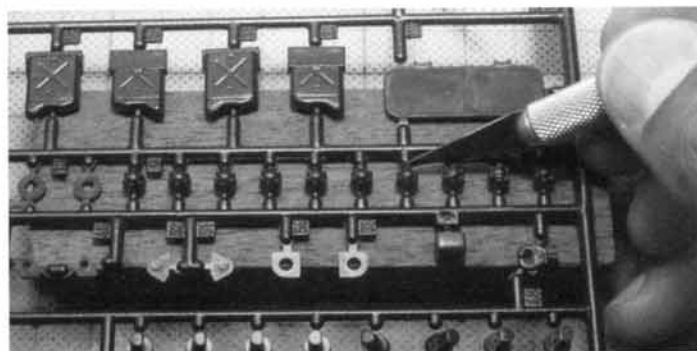
coats. Be sure to check your work carefully, as it is very easy to overdo this technique. Use water-based paint because you will be spraying a lot of thinner onto the painted surface and the water will not affect the surface. If you were to use enamel paints, the thinner would smear the surface paint. Note that the diluted paint will also lighten the overall color of the base paint.

Before I apply coats of paint to simulate dirt, mud, and dust, I drybrush with Testors silver to highlight all the edges, surface detail, and areas where the paint would be worn away, exposing the bare metal. To tone down the silver paint, I apply a coat of Testors Dullcote. Be sure to drybrush all the subassemblies to highlight those parts too.

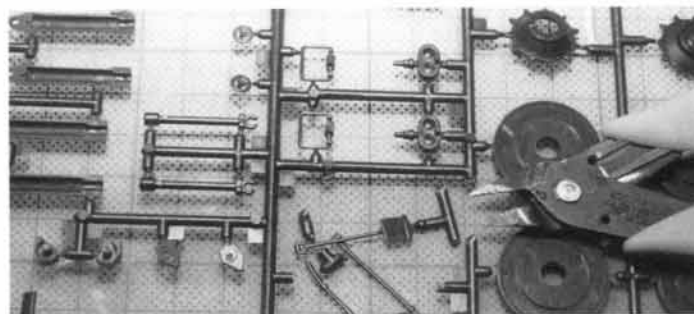
Once you have lightened the decals and drybrushed, you are ready to apply dilute coats of mud- and dirt-colored paint. Polly-S has an excellent set of weathering paint colors. Apply around the wheels, bogies, sprockets, rollers, and tracks, and lower areas of the hull of the tank or vehicle frame that would be in close contact with the ground. I also use pastel pencil dust to simulate exhaust stains around mufflers and engine gratings as well as powder residue on the ends of gun barrels.



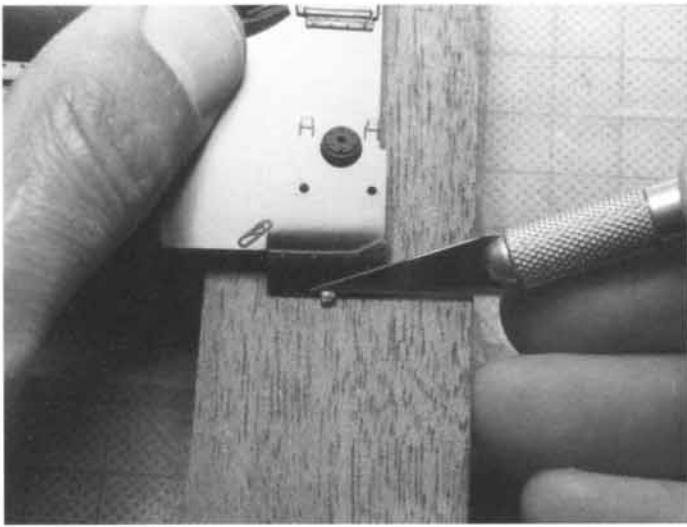
Use a set of thin-bladed wire cutters or a plastic sprue cutter to remove the parts from their trees, and be sure to leave some of the excess plastic stem on the part.



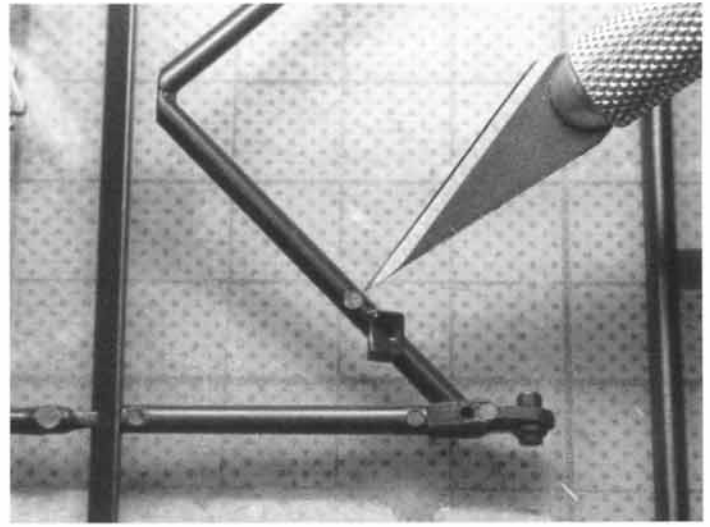
For small parts, set the tree on an elevated surface like a small hardwood block and cut the stems with a number 11 X-acto blade. Here again, leave some of the stem attached to the part.



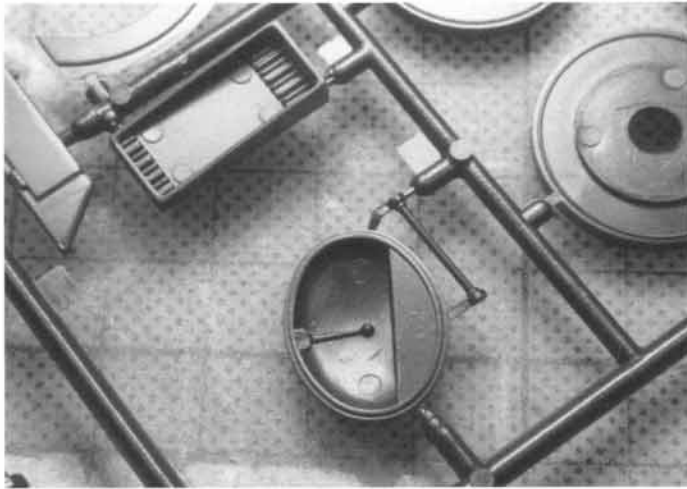
For small, delicate parts, cut the trees around the part and then trim it on a hardwood block.



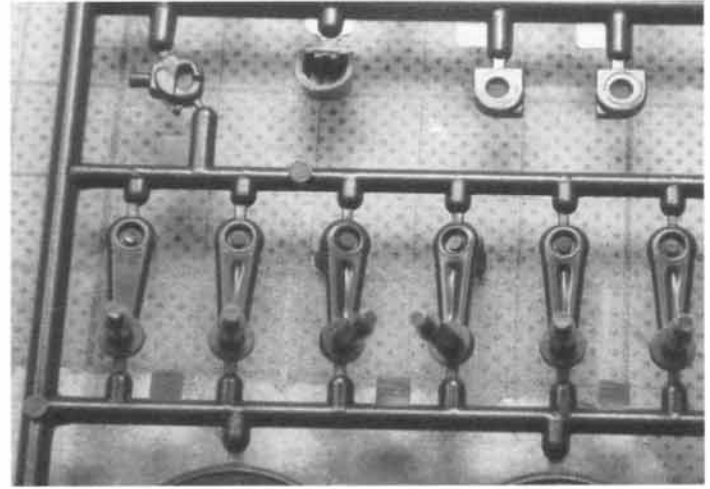
It is much easier to trim off the excess plastic from the stem without having to maneuver the blade around other parts still attached to the tree. Here again, do your trim work on a hardwood block.



All along this framing, there are numerous injection marks, which you'll have to file and sand smooth. Identifying these problems early helps you plan your construction sequence.



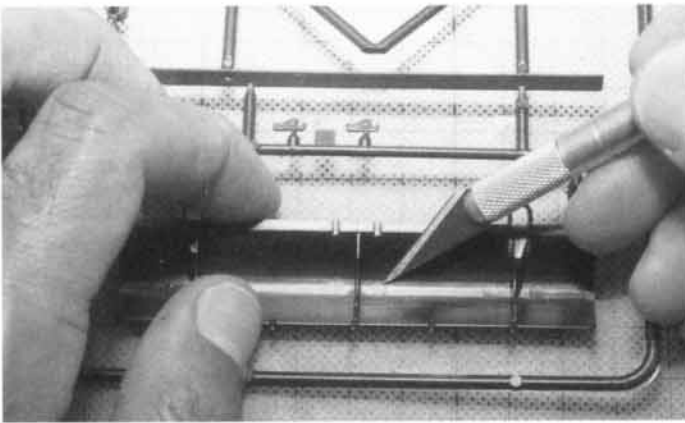
The injection marks on the inner surfaces of these parts will be hard to get to. If the marks will not show on the finished model, don't mess with them. As an example, if you plan to keep the hatches closed, there will be no need to remove the marks from inside the hatch.



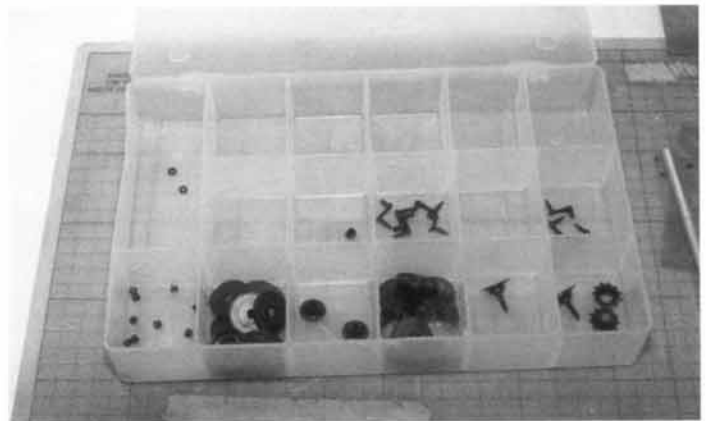
The sink marks on these road wheel suspension arms is a good example of how sink marks can mar the surface of a part. Fortunately, since the road wheels will hide them, there is no need to fix them.

tips

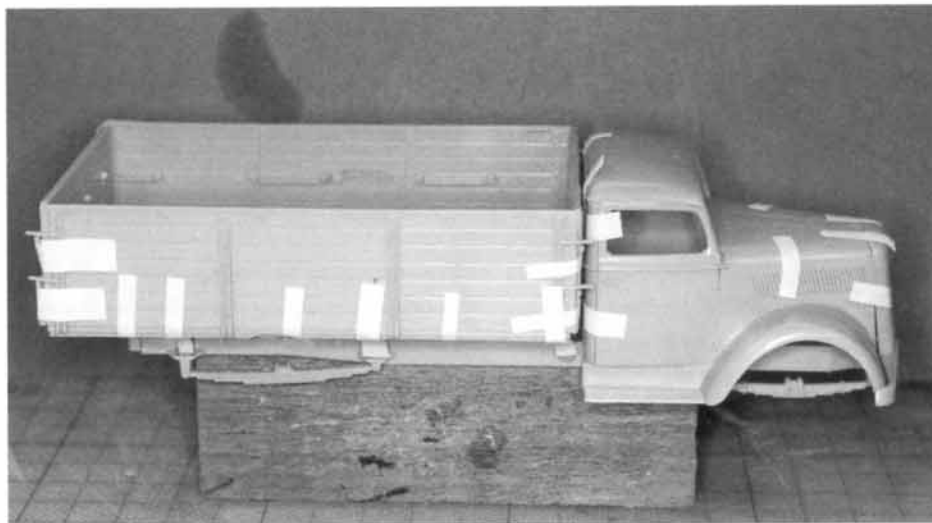
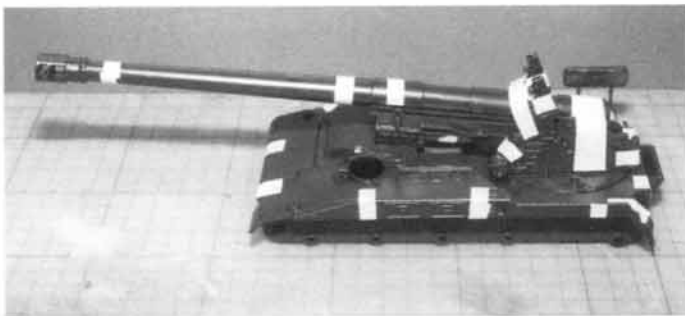
- Do not snap parts off trees.
- Always use a sharp blade to remove parts.
- Leave excess plastic on the parts. You can then carefully trim it off on a raised surface.



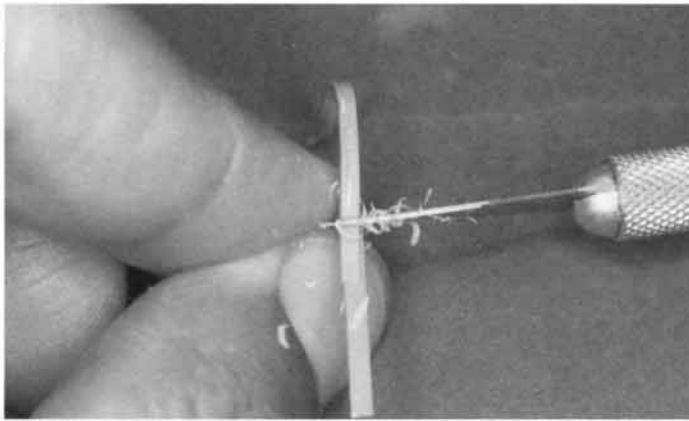
Since the face of this shovel will be one of the eye-catchers of the overall model, you'll have to remove the injection marks on the inside curve. This will require creativity.



Plastic bin organizers found in arts and craft stores are perfect for storing and organizing all the parts as you remove them from the trees and clean them up.



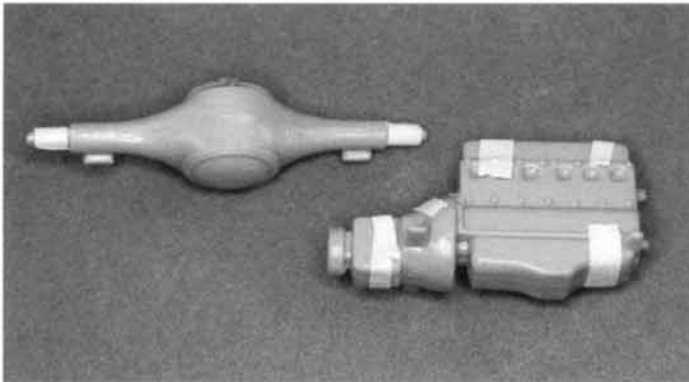
Above are three good examples of fitting together the main components of these different types of models. Building up the main components using strips of masking tape is the best way to identify fit problems and voids. It also gives you an opportunity to see how the model will look when completed and get you thinking about paint schemes and weathering.



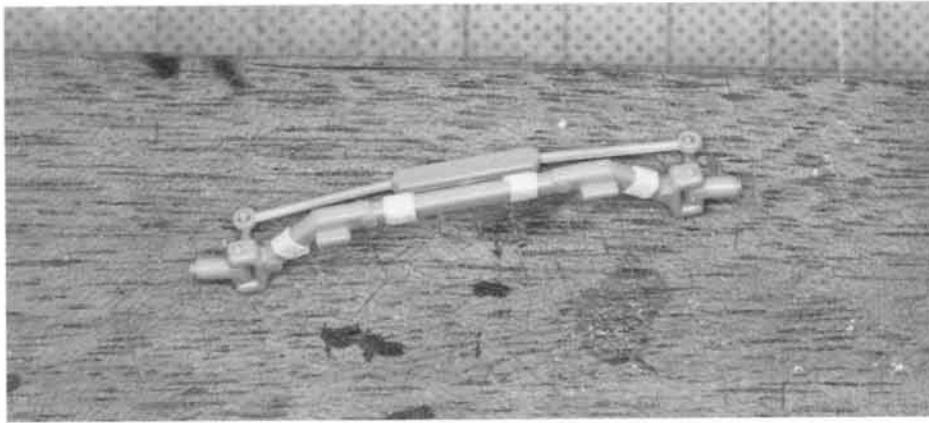
After you remove each part from its tree and clean and cut off the excess plastic, carefully scrape the mold lines. The tip of a number 11 X-acto blade is great for this.



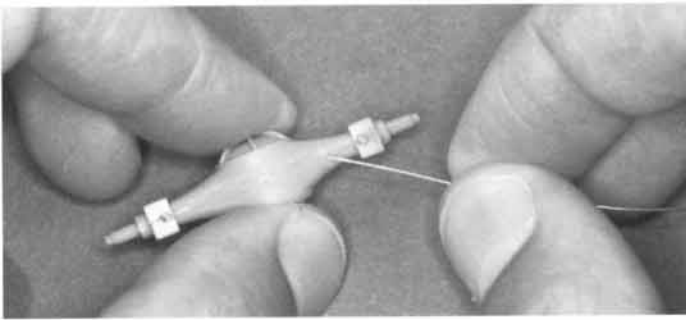
Sometimes part halves fit together better without their alignment pins. Flatten an engine block half's gluing surface by rubbing it gently across a piece of stationary sandpaper.



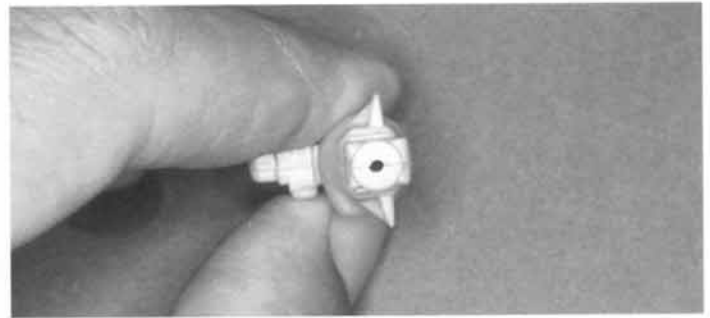
After flattening the gluing surfaces of the two parts, tape them together. They are now ready for gluing.



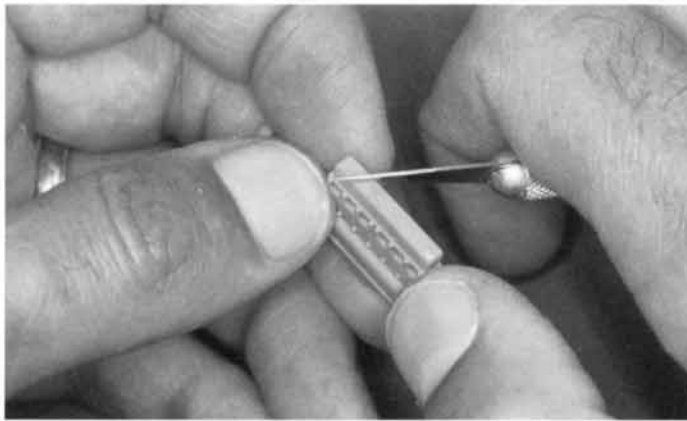
Here is a good example of taping two part halves together and also adding the necessary components to ensure that everything will be aligned correctly.



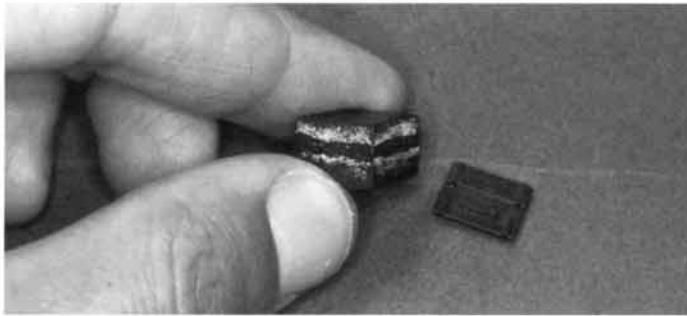
After you have taped the parts, the next step is to run a bead of super glue along the seam line using a thin wire as an applicator. To do this squeeze a puddle of super glue onto a piece of paper, dip the wire into the puddle, and then apply it along the seam line. Once the glue is dry, remove the tape and finish the job.



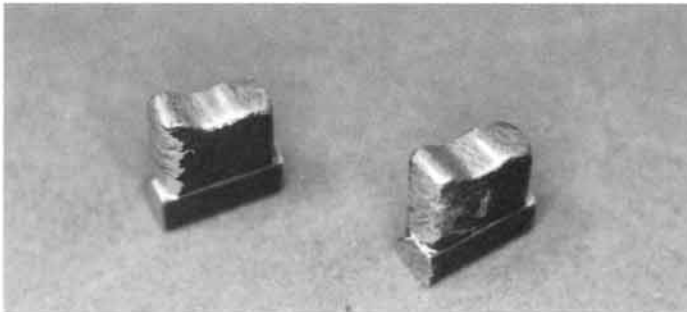
Here's a good example of how alignment pins would have severely misaligned these two part halves. If you used the alignment pins, the hole would have been perfectly round, but the rest of the part would have been misaligned. If you remove the alignment pins, the part halves line up perfectly. All that's necessary is to drill a slightly larger hole.



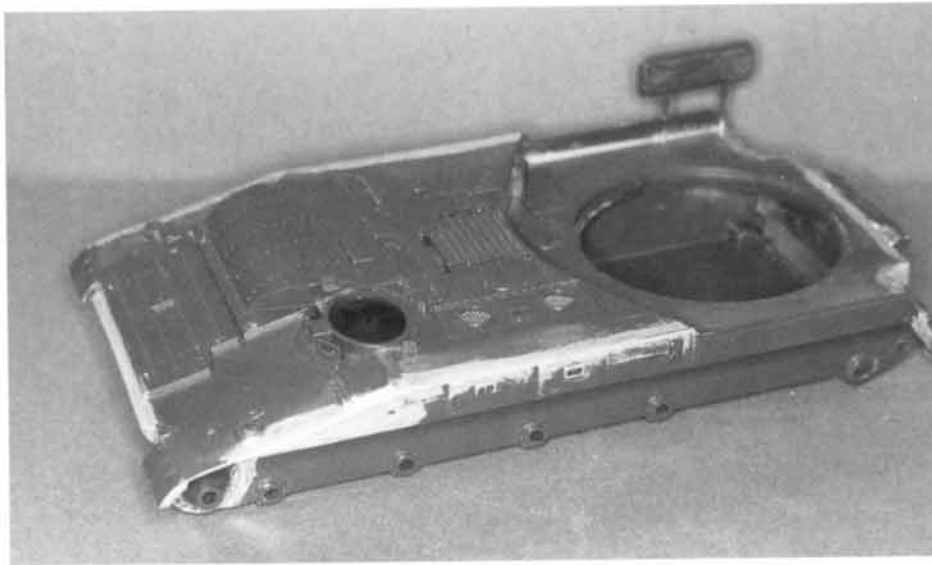
Once the super glue is completely dry, use the outer edge of a number 11 X-acto blade held at a slight angle and carefully scrape the super glue flat. The last step in dealing with this seam is to smooth out the glue with fine-grit sandpaper.



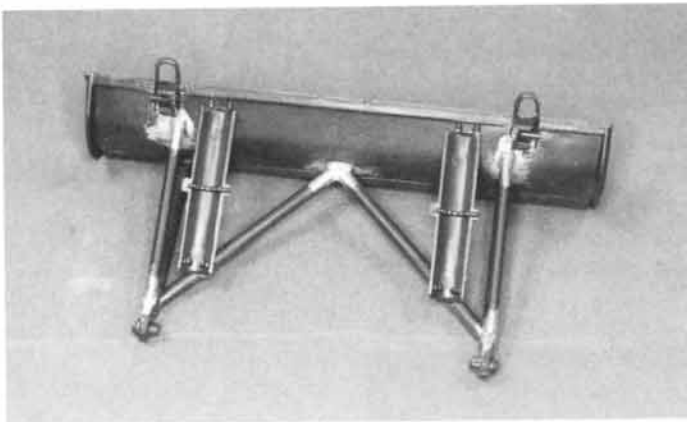
Here's a good example of the discoloration that super glue can cause on plastic. Since this part is a box shape, instead of scraping and then sanding, run the part across a stationary piece of sandpaper to smooth out the glue and blend it into the plastic.



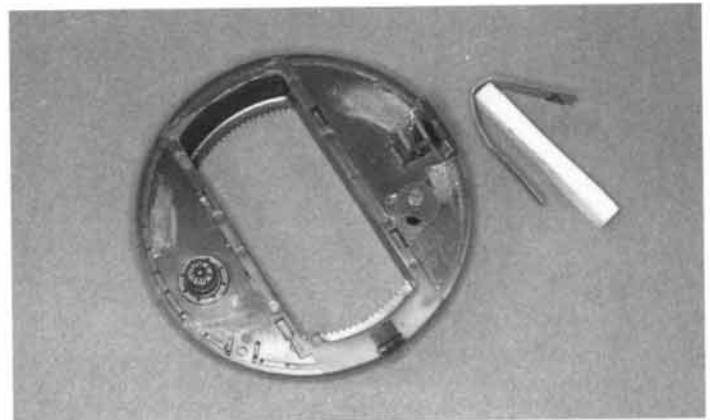
Once you have completed your seam work, check to make sure you haven't missed anything. Testors silver paint works well as a crack detector.



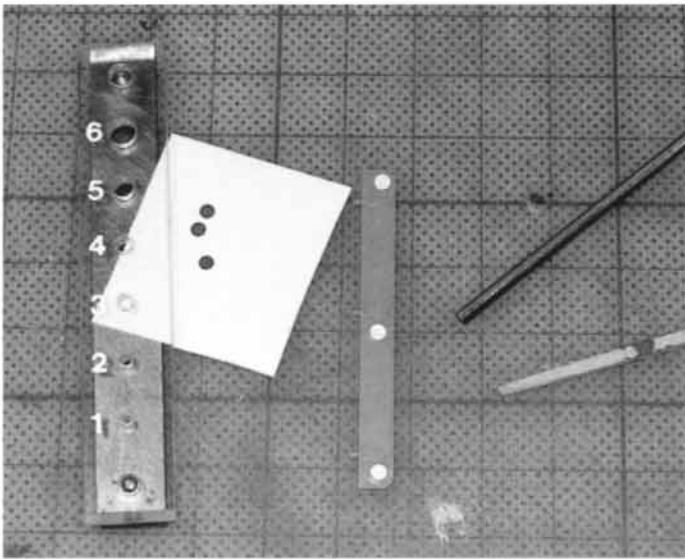
Here Testors silver paint is used to check all the seam work on this self-propelled artillery chassis. If you find any additional flaws, add more super glue, scrape and sand smooth, and then remove the silver paint with Polly-S Paint and Decal Remover. As a last step give the plastic a soap-and-water wash to remove any paint remover residue.



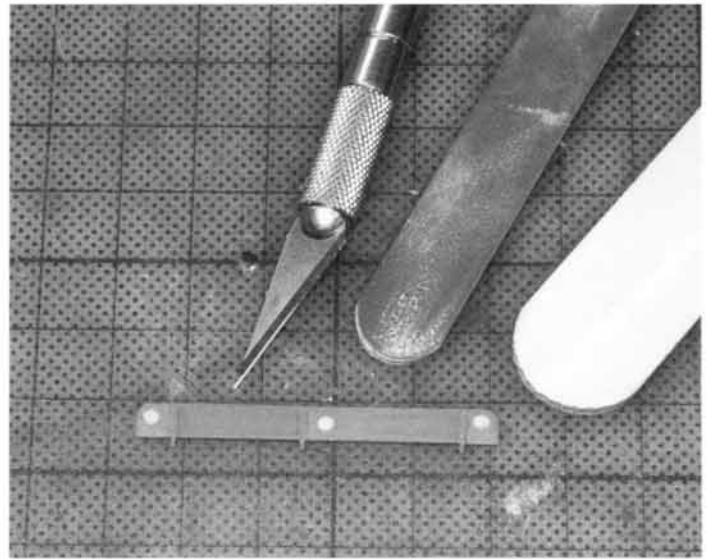
Add super glue at the connection points to simulate the weld, and use silver paint to check the simulated weld seams. After the Testors paint highlights additional areas that need glue, apply the additional coats of super glue.



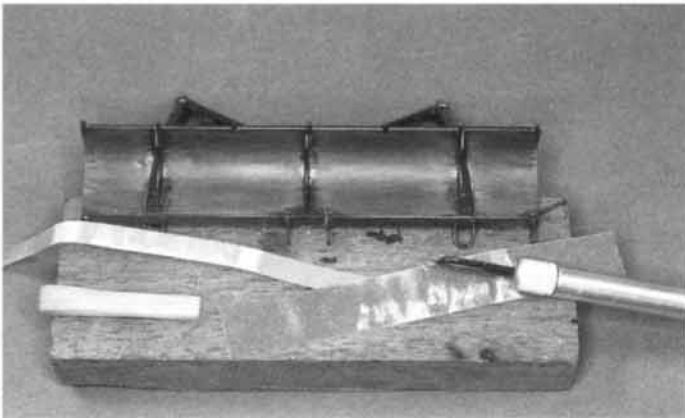
The injection marks on the surface of this part were in difficult-to-reach locations. Small strips of sandpaper wrapped along a length of balsa forms a small sanding tip that allows you to get into these tight locations.



A Waldron punch tool is great for making disks that can be glued into injection-mark openings. Glue the disks in place with super glue. Be sure to apply a small amount of super glue to the outside diameter of the disk so that it's completely sealed.



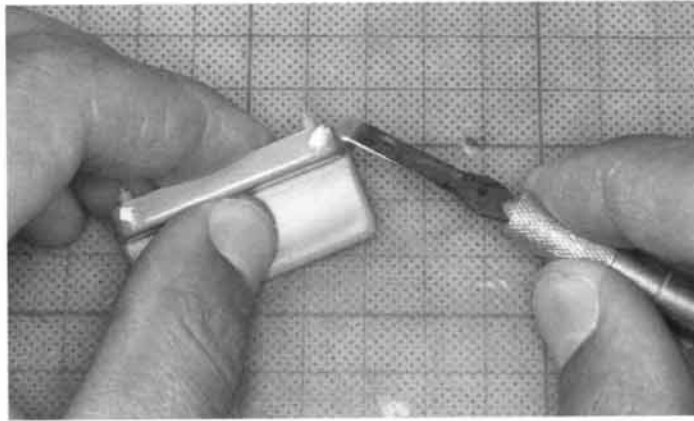
The next step is to sand and scrape the disks and super glue flat and blend it into the surface of the plastic.



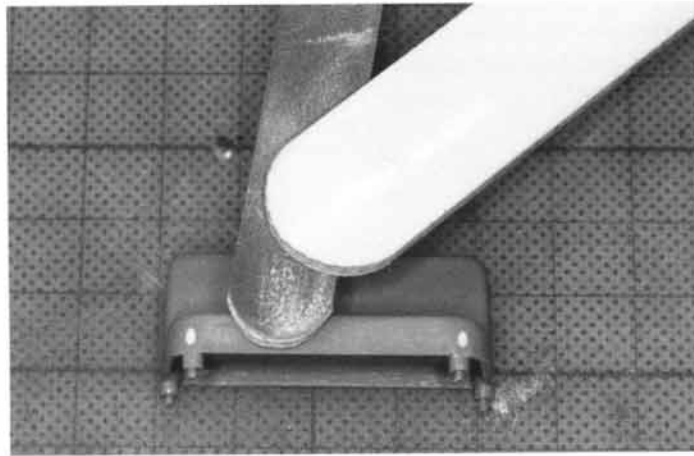
To get rid of the injection marks on the inside area of this shovel, I used thin strips of sandpaper wrapped around lengths of balsa and scraped with an X-acto stencil knife.

tips

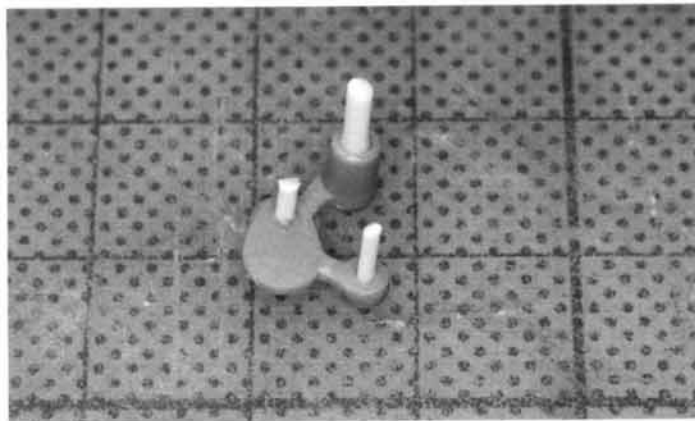
- Long, thin strips of balsa make great sanding sticks for getting into tight places.
- Use Testors silver paint to check all your seam work.
- A Waldron punch tool has many uses in building tanks, artillery, and ground vehicles.
- A Testors stencil knife is great for scraping in tight places.



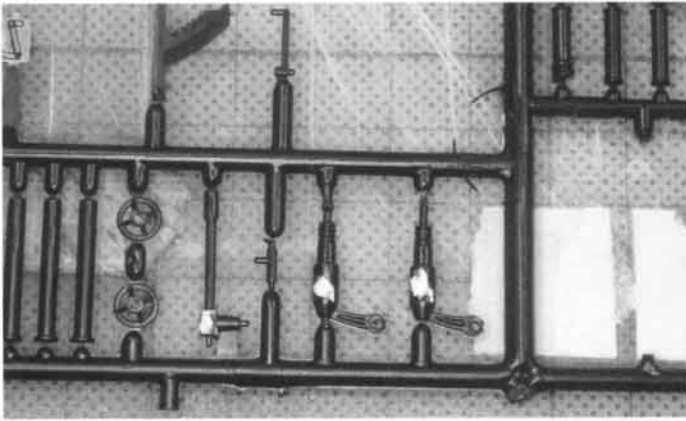
To fill the sink marks at the corners of this seat, apply small amounts of Testors putty with a flat-faced blade.



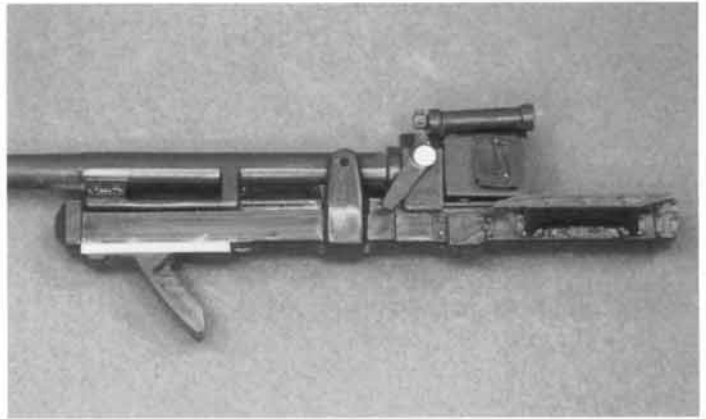
Then sand the putty smooth and blend it into the plastic.



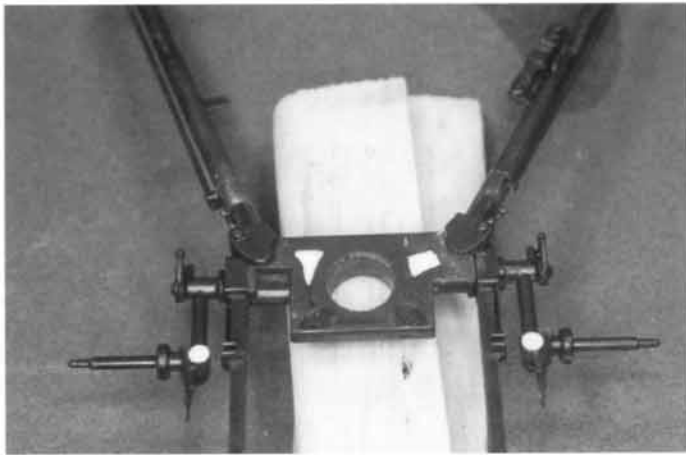
The back sides of this part have deep injection marks. They are easy to fill with small lengths of Evergreen plastic rod.



There were a lot of sink marks on all parts on this tree when I inspected it. To ensure that I caught all the sink marks, I simply applied the putty while the parts were still attached to the tree.



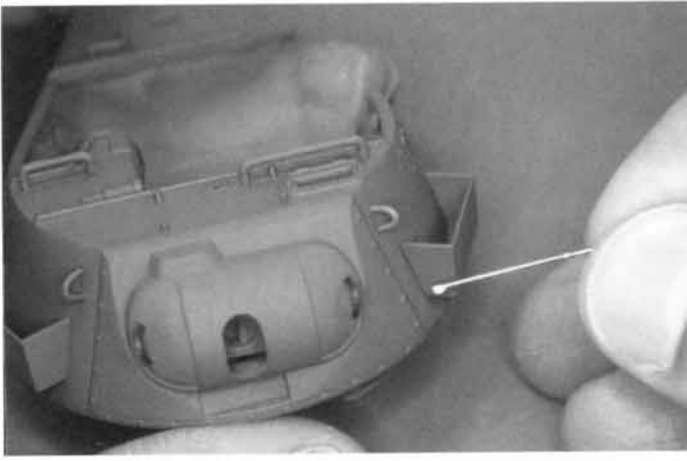
Sometimes hiding seam lines or filling injection marks would be difficult because filling them would damage the surrounding detail. In these two cases I used a small length of Evergreen plastic half round to cover the seam and a disk punched out by a Waldron punch tool to cover the injection mark.



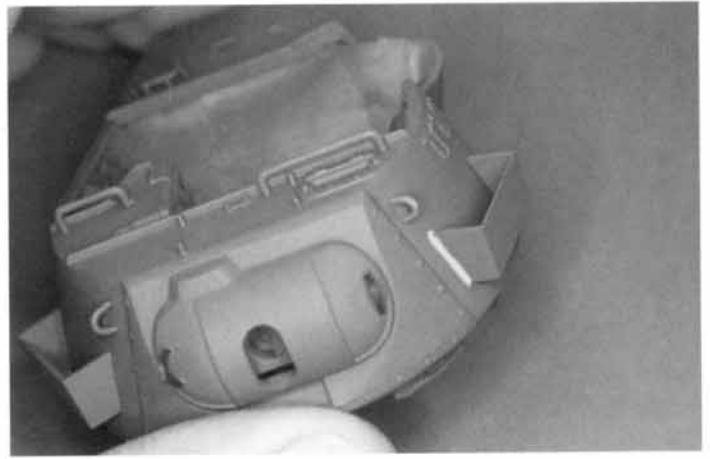
Here's an example of using putty to fill large sink marks and using small disks punched out by a Waldron punch tool to cover small injection marks. Different problems require different solutions.

tips

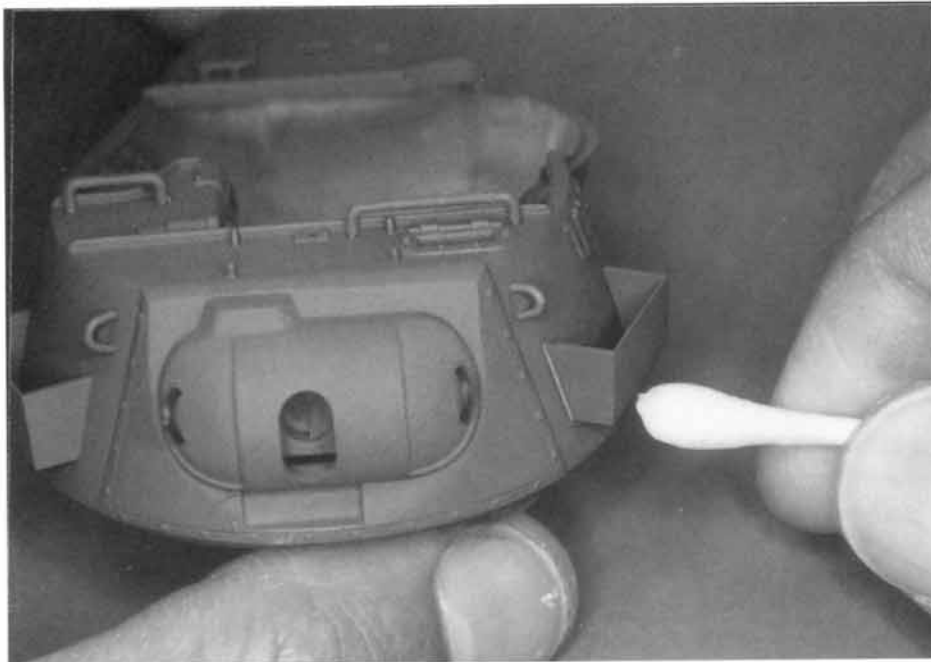
- Testors putty is great for filling small sink marks.
- Evergreen plastic rod and strips work well for filling voids or hiding flaws.



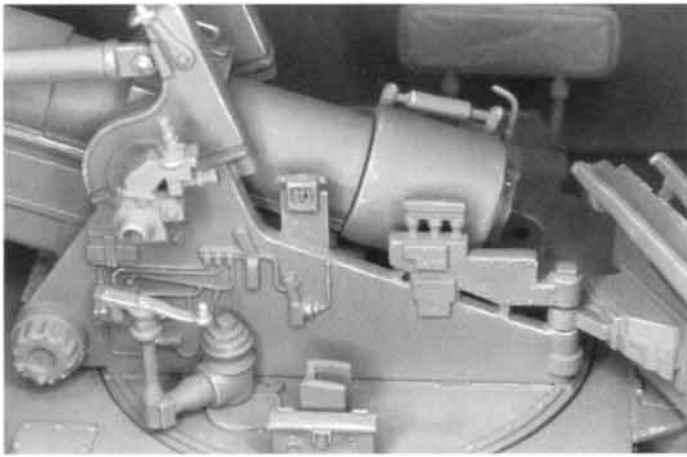
To fill the seam area between the turret and the external storage bin, I use white glue applied with a thin wire applicator.



Here the white glue application is complete, and the next step is to smooth out the glue. Since skin forms rapidly on the surface of white glue, you have to apply the glue a little at a time.



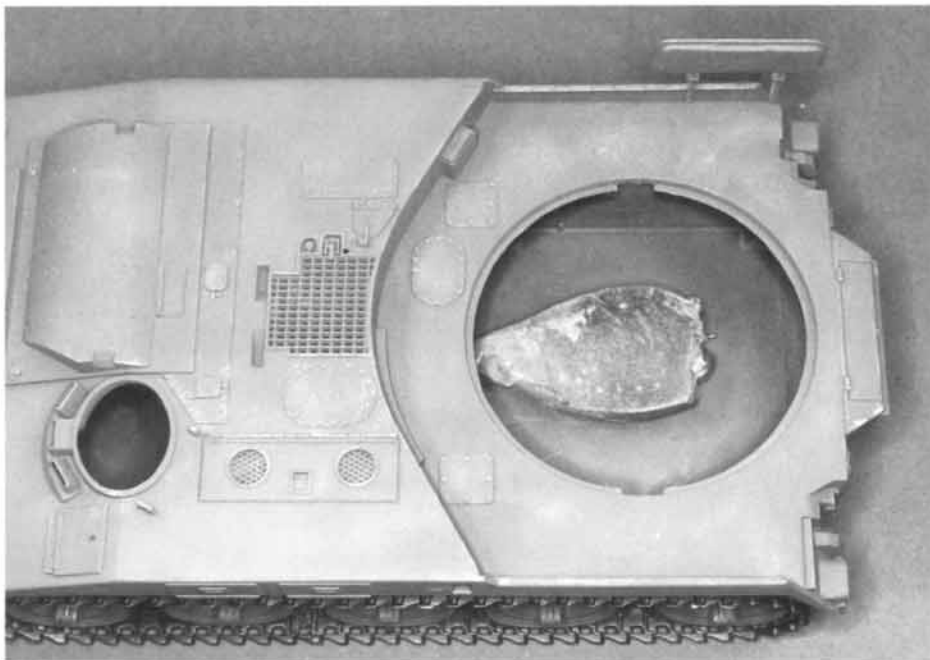
The next step is to moisten a cotton swab in your mouth with a twisting motion so that there is no fuzz on the swab, and then run it along the surface of the white glue to contour the glue and remove the excess.



The void between the surface plate and carriage of this self-propelled gun would be impossible to fill with putty. Several applications of white glue solve this problem. Another advantage to using white glue is that it dries clear. It transmits the paint color of the surface that it is attached to so well that in many cases you don't even have to paint the glue.



White glue is also an excellent adhesive for clear parts because it will not mar the plastic. Clean excess glue off clear plastic with a moistened cotton swab. White glue is also an excellent medium to use as a filler in areas where there are voids between the clear part and the surrounding plastic.



Adding weight to track vehicles will make the road wheels sit on the tracks instead of appearing to float over them. Do this by adding mashed lead fishing weights to the inside hull area.



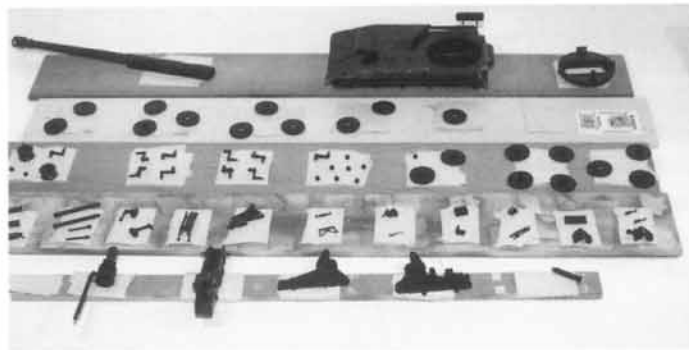
To help mix the paint, add a few copper BBs to the paint container.



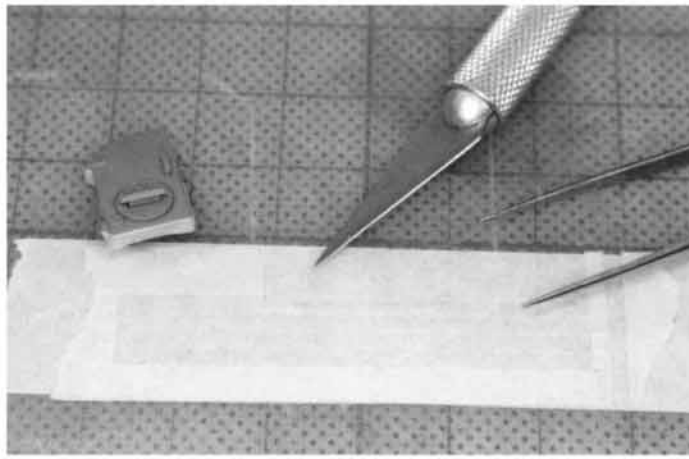
The best way to mix paint for airbrushing is to use two paint bottles of the same type and volume—one for the paint and one for the thinner. The mixture will be 3 parts paint and 1 part thinner.



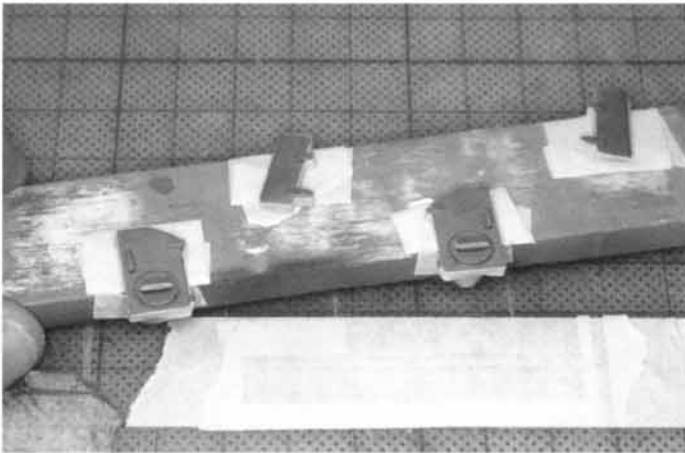
I usually mix several shades of the primary colors I plan to use as well as the weathering washes. It is not unusual for me to end up with 10 or 12 bottles of mixed paint per model.



Use strips of wood or stiff cardboard and masking tape to attach all parts to be painted. Once the paint has dried, flip the parts and paint the other side.



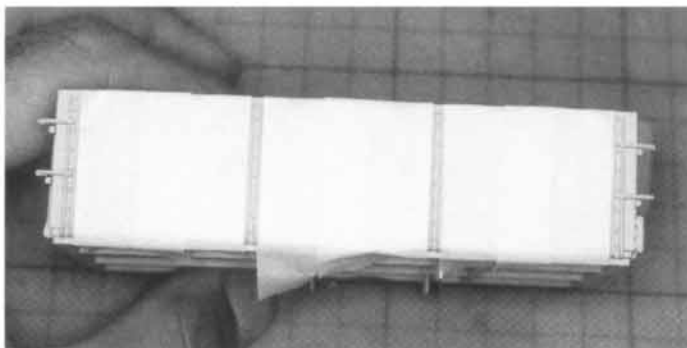
Cut small strips of masking tape by using two layers of tape. You usually don't use the bottom layer. Use a small metal ruler and a sharp number 11 X-acto blade to cut the strips.



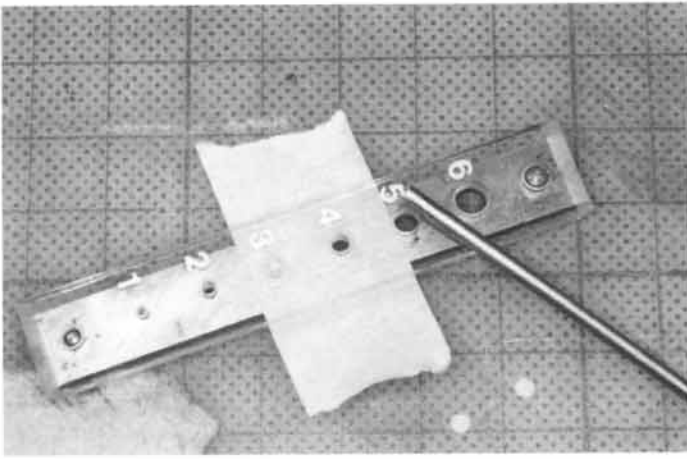
After you mask the edges of these hatch covers, they are ready for the top coat of olive drab.



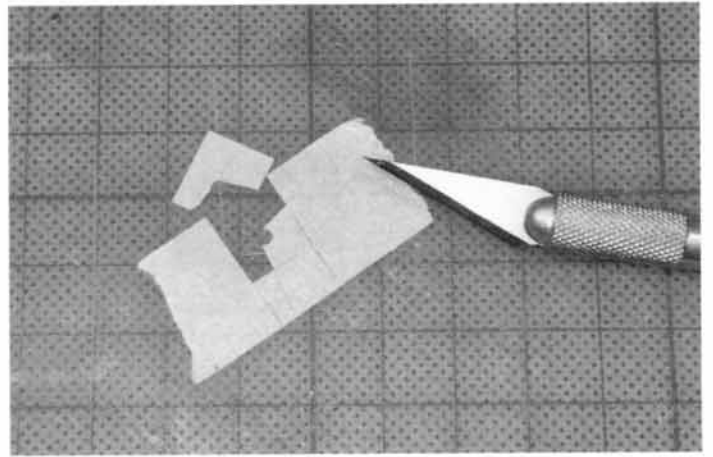
Apply small strips of masking tape around the perimeter of the fuse box and then brush-paint the part. As long as you apply small amounts of paint with a brush around the edges of the masking tape you shouldn't get any bleeding of the paint under the tape.



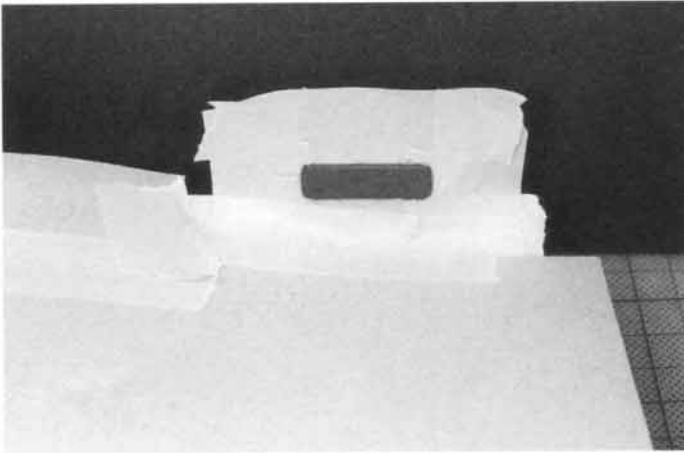
To paint the metal strips of this wood truck bed, position large strips of masking tape. Paint the strips a slightly darker shade of desert sand to differentiate them from the lighter wood.



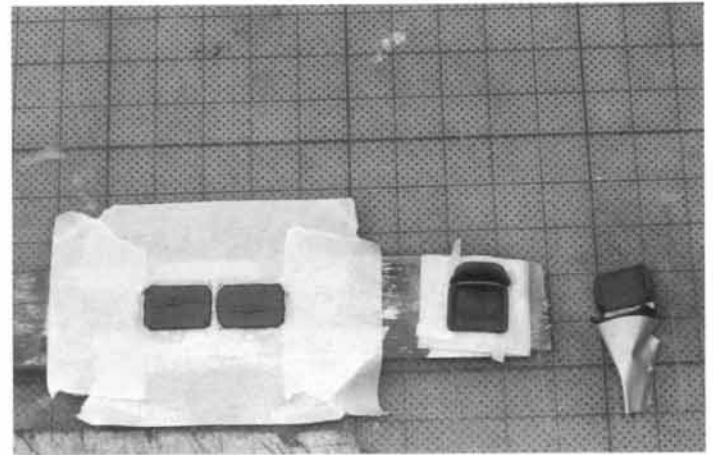
A Waldron punch tool is great for punching curves in masking tape.



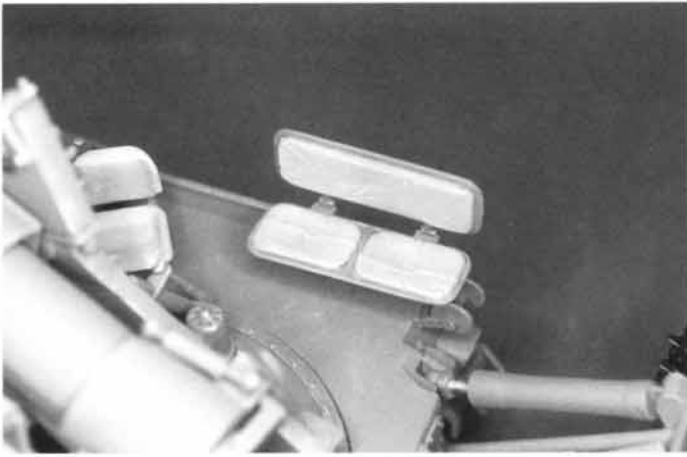
After punching out the curved area, cut it out. It is now ready for installation around the curved part.



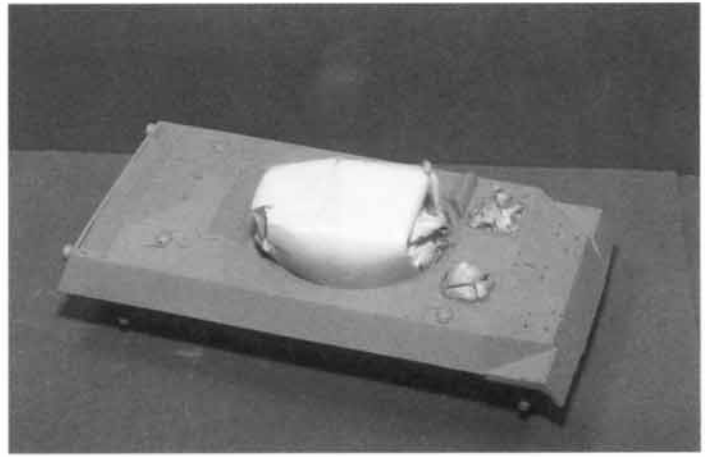
Attach the masking tape with the curved edges. The completely masked part is ready for painting. Note the white sheet of paper covering the tank's body.



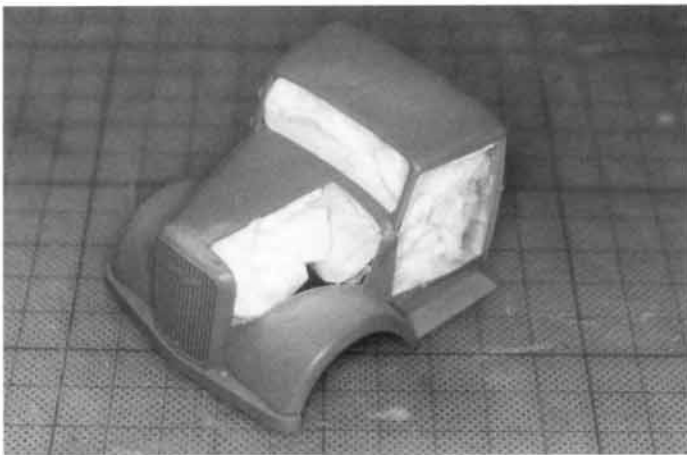
Here are some more examples of masking using combinations of large and small strips and lengths with curves punched in them using a Waldron punch tool.



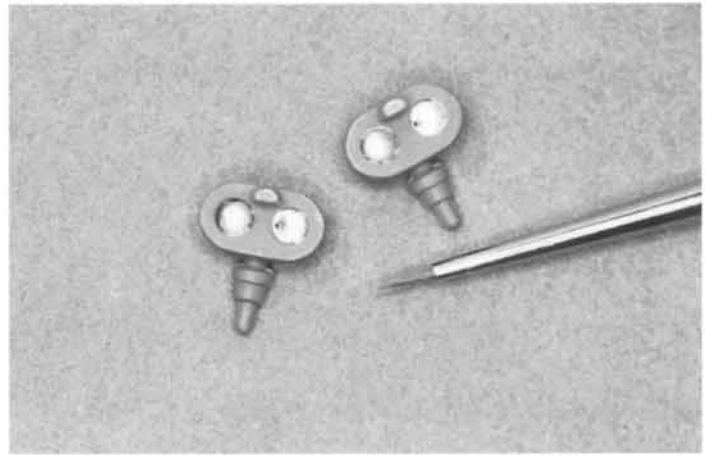
Here are the finished painted seats. Note the light canvas color to differentiate the cushions from the metal and the fine demarcations between the light cushion color and the dark metal color.



Fill a tank interior with tissue paper and then cover it with masking tape to ensure that airbrushing will not bleed into the interior.



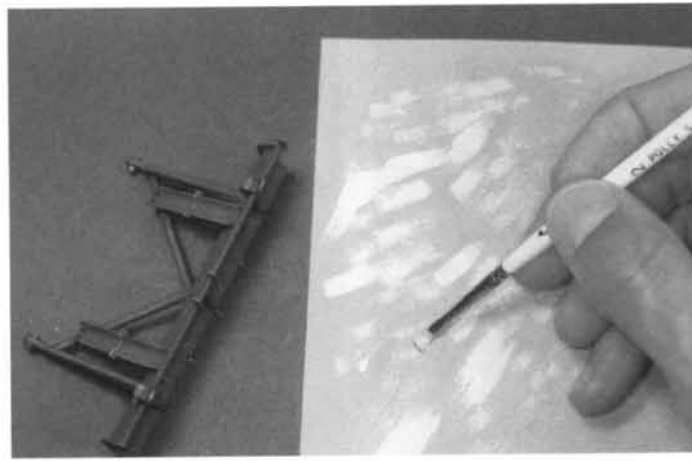
Here's another example of using tissue to protect interior colors. Mask the edges of the cab and then stuff the inside of the cab completely with tissue.



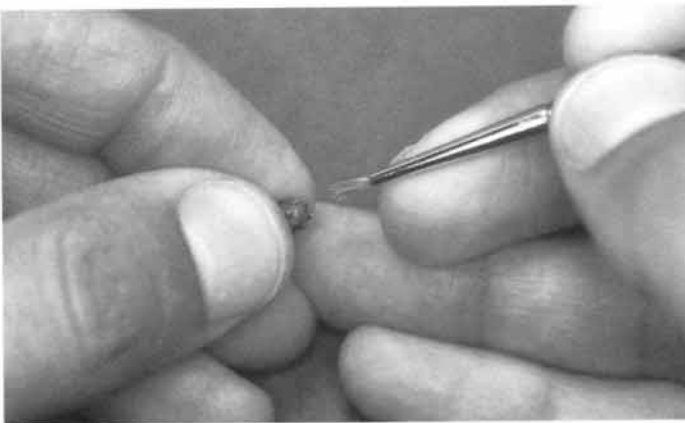
To pick out tiny details like headlights, use a small detail brush with a stiff tip.

tips

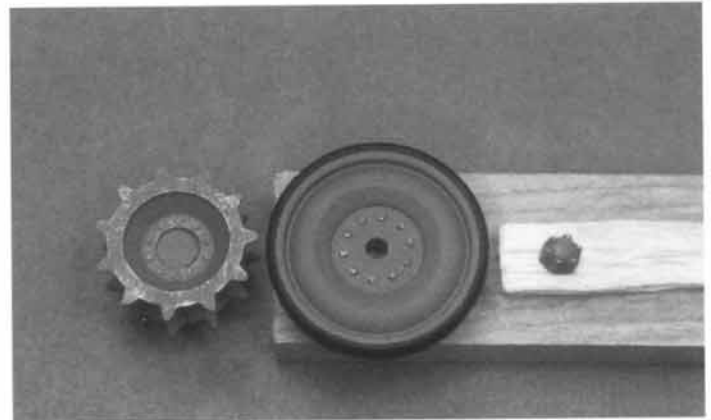
- A Waldron punch tool works well for punching out curved surfaces on masking tape.
- Tissue paper is great for filling the large interior areas of tanks or vehicles when painting.
- Always prime plastic prior to painting the finish colors.



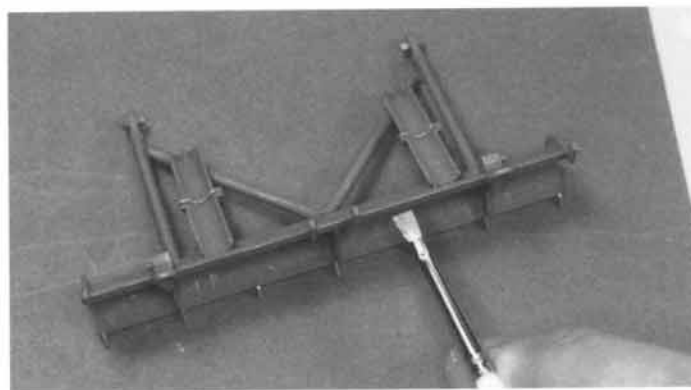
The first step in drybrushing is to remove almost all of the paint from the brush.



After removing almost all the paint, run the brush lightly over surface detail. The remaining paint particles on the brush will cling to the raised detail.



Here are three examples of drybrushing. Note how the bolt heads on the road wheel and hub stand out. The face and teeth of the dry sprocket received a liberal coat of silver to simulate the heavy wear of the track on the sprocket.



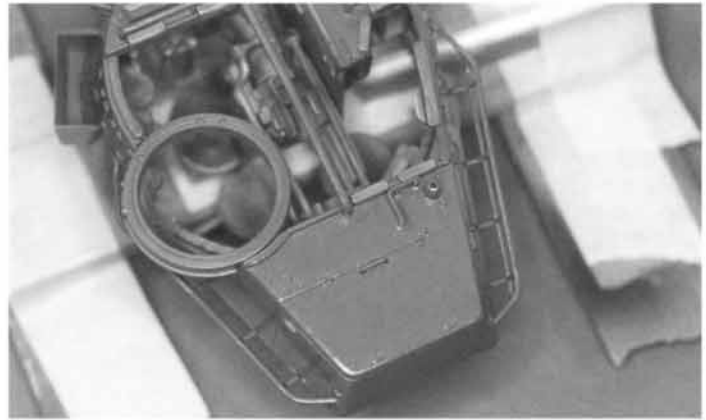
To make parts stand out, drybrush around all edges and corners.



To reduce the silvering effect of decals, remove as much of the clear film on the decals as possible. Cut all your decals on a glass or Plexiglas plate. Always use a straightedge and sharp blade.



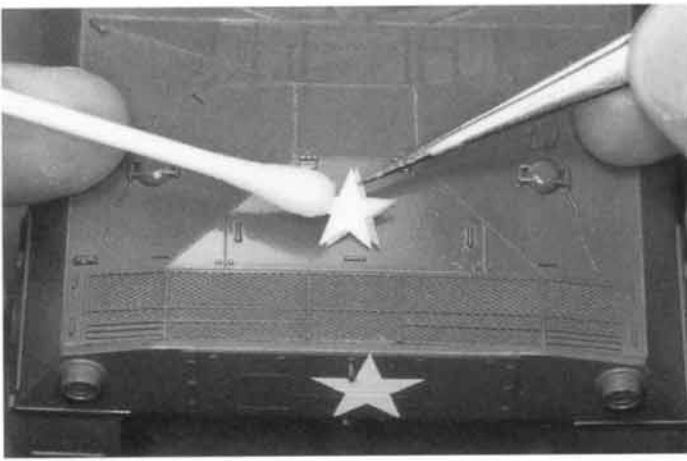
Remove all the clear film from large decals, and remove as much of the clear film as possible from smaller decals.



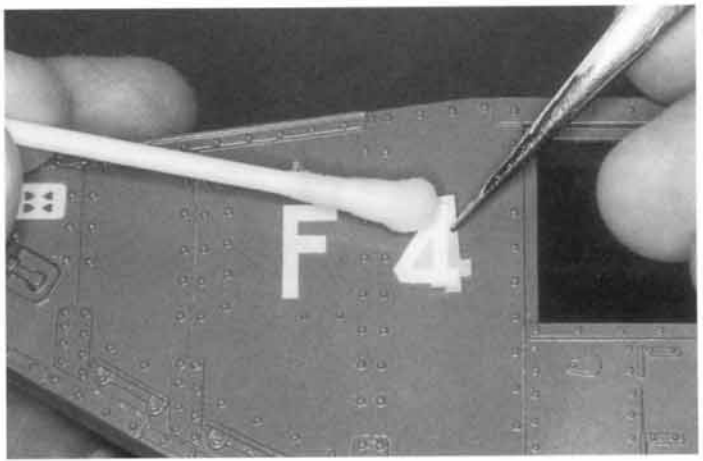
The secret to good decal application is to apply the decal to a gloss surface. I use clear gloss polyurethane applied with an airbrush. The gloss surface helps eliminate the silvering of decals and allows you to slide the decal around to position it correctly. Here the top rear turret has been glossed and is ready for decal application.



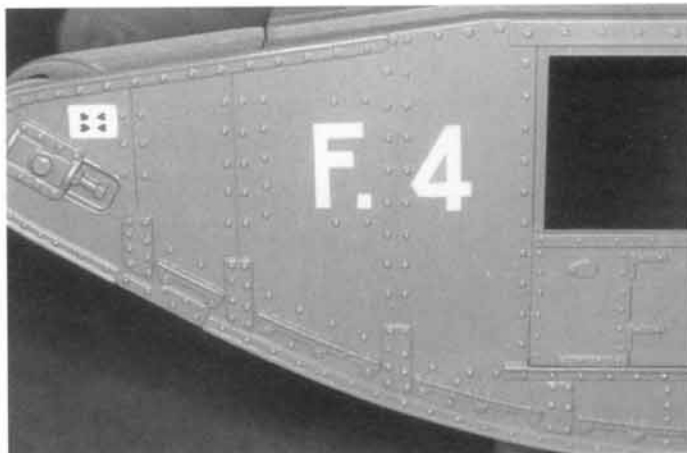
When you're ready to apply the decals, do them one at a time. Dip each decal in warm water for about 10 to 15 seconds and then remove it.



The warm water will loosen the decal's glue, and within 30 seconds or so the decal will slide off its backing. Move the decal slightly off its backing, grab the backing with tweezers, lay the decal over the approximate location, and then slide it onto the surface using a cotton swab soaked in decal setting solution.



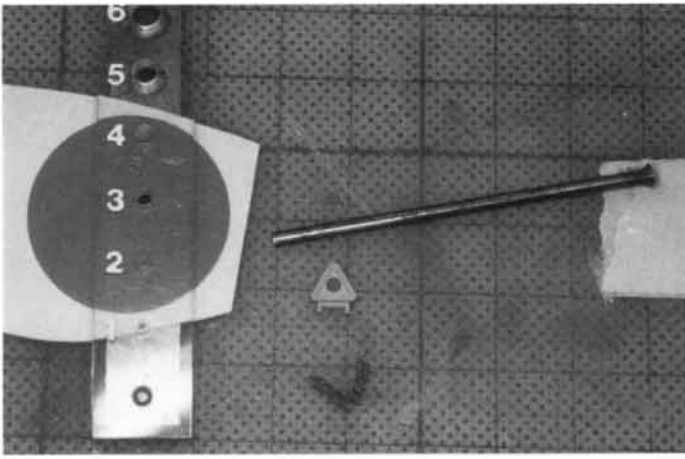
Here's another decal being applied. Note that the clear film on the inside of the number four has been removed from this decal. Because of this hollow area in the center, you have to be careful that you don't fold the decal over on itself when you're sliding the decal off the backing.



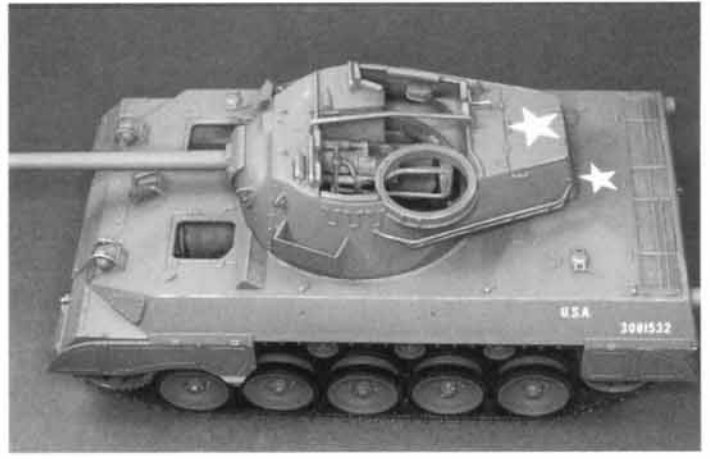
The tank identification (F.4) was one decal with a lot of clear film. Instead of taking the chance of having a small portion of that clear film silver even on a gloss surface, cut out the individual decals, and apply them separately. The trick here is to make sure that the decals line up correctly.



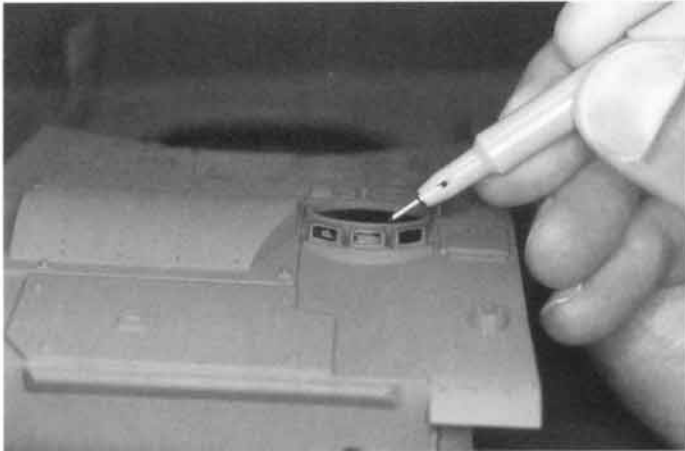
This tank name was all one decal applied to a high-gloss surface and then coated with Testors Dullcote. This decal was also weathered with a dilute wash of mud. Note that there is no silvering of the clear film.



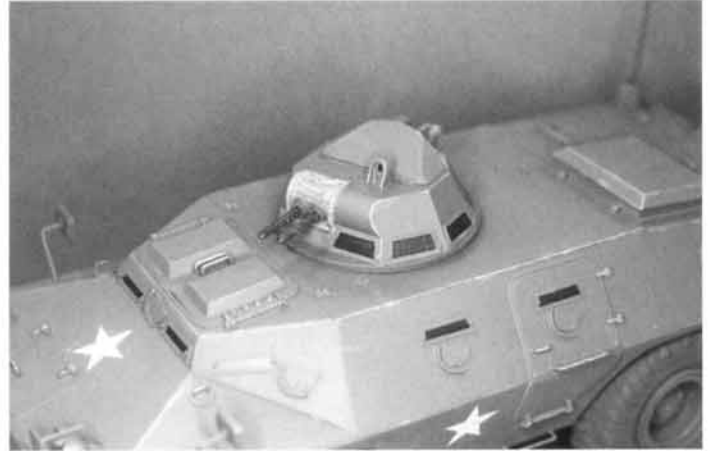
Sometimes you can use decals in place of paint. To get a small red dot like this, use a Waldron punch tool to punch one out from a spare aircraft decal sheet.



The decals on this M-18 Hellcat are now ready to be lightened so that they appear to be faded.



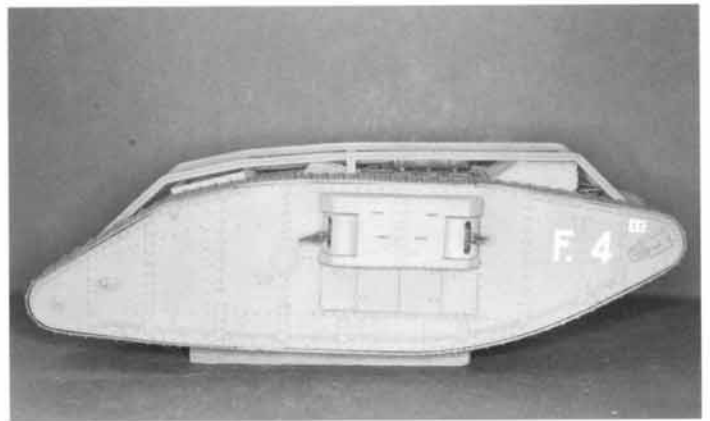
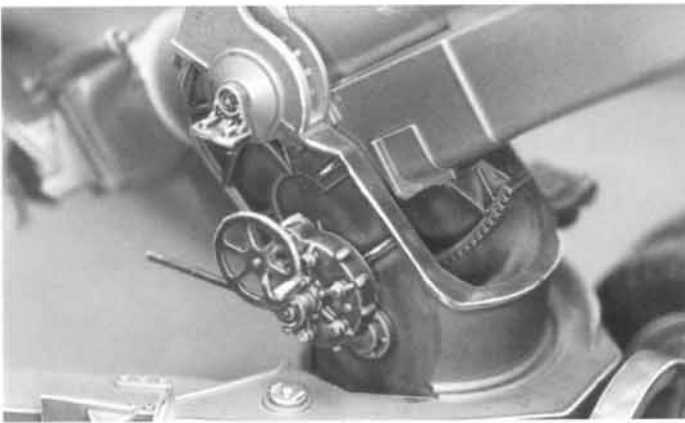
The easy way to paint periscope faces is to use a fine-tip disposable drawing pen.



Light coats of olive drab paint on the horizontal surfaces of this armored car in combination with careful drybrushing along the edges and in areas that get excessive wear help create the overall effect of a used and weathered vehicle.

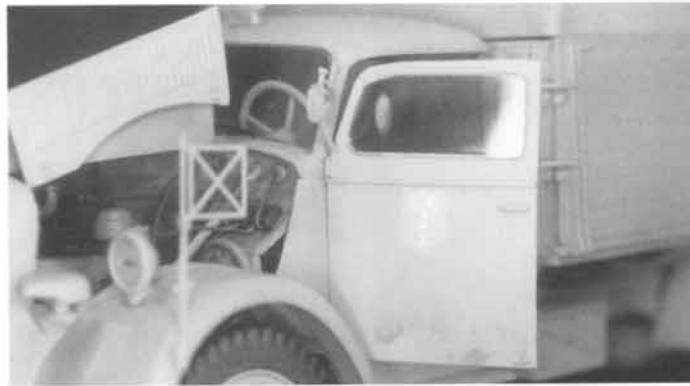
tips

- Remove as much clear film from the decal as you can.
- Remember to gloss the surface where the decal will be applied.
- Use damp cotton swabs to help position the decal.



Here's a good example of using a dilute coat of umber colored paint in combination with drybrushing to help simulate heavy wear and use. Model by Richard Boutin, Sr.

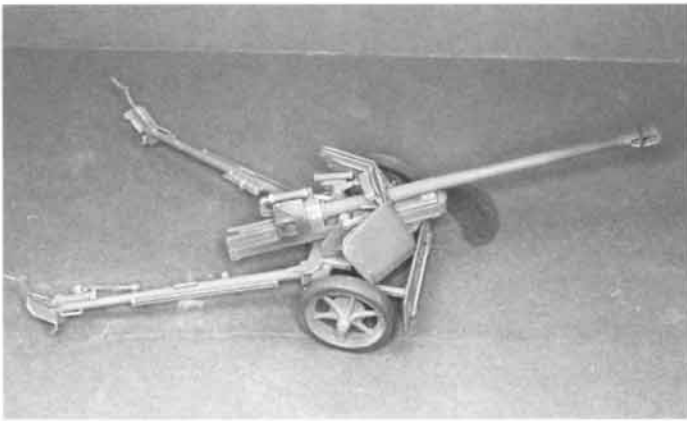
Apply dilute coats of mud, dirt, and rust to the lower areas of this British female tank to give it a weathered appearance. What you want to achieve is a subtle effect and hints of dirt and mud. It is better to underdo weathering than to overdo it.



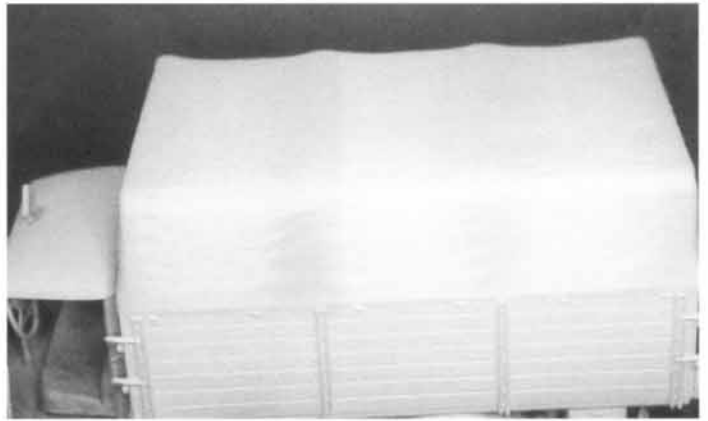
To simulate splashed mud, as on the door of this Opel Blitz, apply an excessive coating of dilute mud so that it will smear downward.



These tires have a coating of dust so that they almost appear to be a lighter shade of dark gray rather than flat black. Note also the subtle mud splattering on the decal.



A good example of weathering on a towed self-propelled gun. In this case add all the applications of paint and dilute weathering coats first and then drybrush the edges. To tone down the silver paint color, the model received an overcoat of Testors Dullcote.



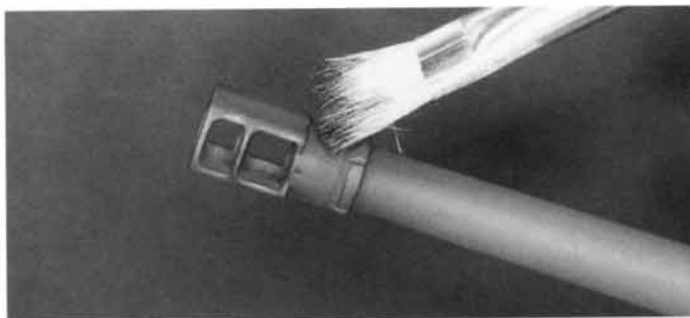
Here is an example of a subtle weathering effect on canvas. Note the four dark streaks across the canvas. These dark streaks simulate the bleeding and wear that the metal frames under the canvas would normally have on the outer surface of the canvas.



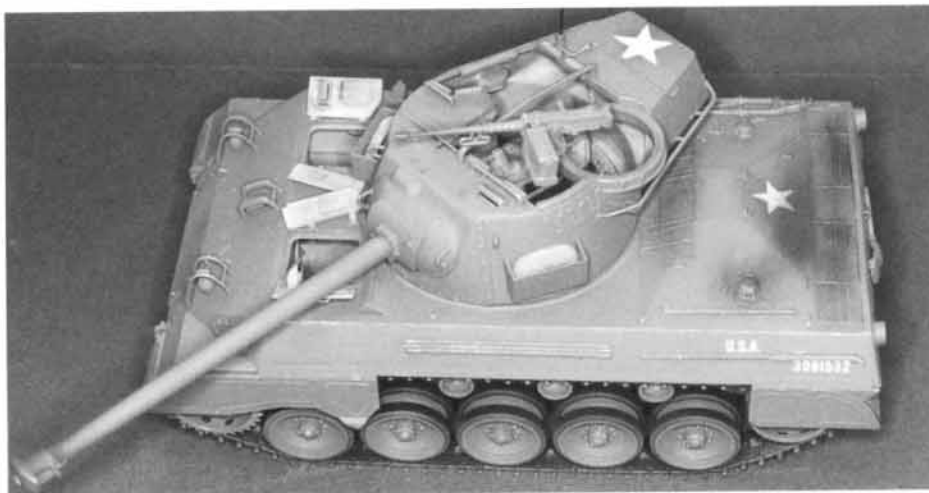
The first step in using pastel pencil dust as a weathering agent is to scrape the pencil onto sandpaper.



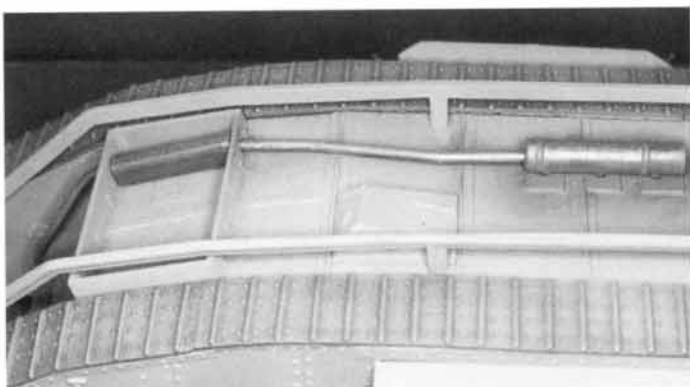
Use a soft flat brush to pick up pastel dust.



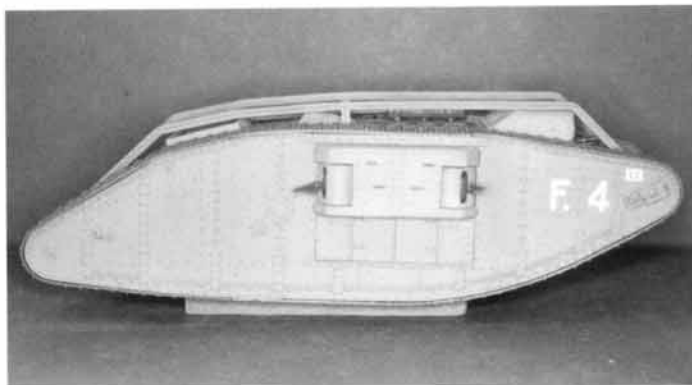
Apply black pastel dust to the muzzle brake area of a barrel to simulate smoke and powder burns.



Apply pastel dust to the engine cover areas and exhausts on this M-18 Hellcat. Additional pastel dust applied on some of the surface areas of the metal simulates discoloration of the surface paint from the heat of the engine.



Coat the exhaust pipes and mufflers on this British female tank with Metalizer burnt iron and then topcoat them with Metalizer burnt metal. Then touch the parts lightly with 0000 steel wool to remove the surface color and allow the darker burnt iron color to stand out. Also note the slight surface discoloration around the exhaust collector. You can achieve this look with pastels.



Here's one last example of the subtle weathering effect that dilute washes of water-based mud and dirt colors can have on the overall appearance of a model. Apply very light coats of mud along the vertical rivet lines to help simulate the collection of dirt and mud in the crevices of these areas.