By David Lynn

We have always admired those beautiful handcarved name boards on other boats. With the glossy varnish and the gold leaf reflecting the sunlight, they add such a wonderful touch of elegance to a boat. We decided to make a pair for *Nine of Cups*. After a bit of trial and error, we found it to be easier than we thought and were quite pleased with the results. This article describes the steps needed to make your own.

Tools

You are going to be cutting and shaping wood, so you will need some basic woodworking tools. These can be simple or quite sophisticated. You could do the job with as little as a handsaw, files, drill and sandpaper, tools every cruising boat should have. The task becomes considerably easier and faster, however, if you have a jig saw and palm sander. We carry both aboard *Nine of Cups*, and it is amazing how often they get used. Another tool that I highly recommend is a Dremel tool with the basic accessories. Next to my drill, this is the most frequently used power tool aboard. If you have access to and know how to use a bandsaw, router and table saw, cutting and shaping the wood is an easy couple of hours.

The essential tools you will need for carving the wood are relatively inexpensive. If you later decide to make a figurehead for the bow of your schooner, you will need a larger selection of tools, but for this project you will need a set of five palm handled carving tools. The sources listed at the end of this article have starter sets of five to eight short handled carving tools with spoon shaped gouges and bent and angled chisels. You will also use larger 1" and ³/₄" chisels and a mallet. I also have a set of small files and rasps to remove cutting marks prior to sanding. Photo 1 shows my complete set of woodcarving tools. Make or buy a roll up pouch to keep them all together.

You will also need a few things to keep them sharp. I use a small sharpening stone for the chisels and some sharpening compound applied to a small felt or leather disc mounted in my Dremel to sharpen the spoons and gouges.



Photo 1: Woodcarving tools including chisels and gouges.

We also make use of our computer to aid in the design process. A text-editing program such as Microsoft Word[®] is useful for generating the text font and layout. Also, if you want to add graphics to the name board or make a complex shape for the name board, you may want to use a program for creating graphics. Microsoft Paint is a very basic software program that has been provided free of charge with all Microsoft operating systems since the old DOS 3.1 days way before Windows. It gives you some basic tools for drawing and making sketches, and it also allows you to edit an existing photo or picture. You can stretch, rotate and skew an image. It is by no means a sophisticated graphics software package, but it is adequate for this project and is available to anyone who owns a Windows-based computer. If you have another graphics software package you prefer, all the better. You will also need a printer for printing the artwork. Just about any

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printer will do the job if Paint or your graphics software can print to it.

If you don't have access to a computer or would rather generate the artwork by hand, all you need is a straightedge, compass, pencil, big eraser and a bit of patience. After all, this is how it was done for hundreds of years.

Wood selection

The selection of the wood, not only the type, but the particular board you choose, is one of the most important aspects of the project. I like teak and mahogany for my carving projects. The wood holds up well in a marine environment, is easy to carve and looks great. I am sure there are other varieties of wood that have all these qualities as well, but for your first project, stick to one of these two. Avoid Philippine and Luan mahogany as they seem to be a lesser quality. There may be a good supplier near you or I have listed some suppliers at the end of the article that will ship directly to you.

If you have a supplier nearby, you have the advantage of being able to select the board you are buying. You want wood with a uniformly tight grain. The grain should be straight down the length of the board. Avoid boards with a grain that wavers or does not run parallel with the edges. Also avoid knots or wormholes.

When you select the piece of wood, make sure to get an extra 18" or so more than you need. You will use this to practice your carving before starting on the name board.

Design

Think about where you will put the name boards. Will you put them on either side of the bow or transom, on the transom itself, or perhaps on each side of the coach roof? Once you decide where they will go, make some rough measurements and estimate the size you want. A good starting point for the size of name boards on the port and starboard sides is to make it 1 inch for every foot of overall length of the boat. If it is to be on the transom, it should be somewhere around 60%-75% of the transom width. Cut and tape together some cardboard in that size and attach it to the boat with masking tape. Stand back 50 feet and take a look. Sometimes it is obvious what the correct size should be, for instance when it must fit the height of a shear stripe. On some boats, the correct size is not obvious, and you need to find that tasteful point between being ridiculously small and overwhelmingly large. Ask the opinion of others and get a consensus. Look at the size of the name boards on other vessels.

Figure 1 shows four of the more common traditional designs for name boards. For other ideas, look at the name boards on other boats as you walk around the marinas and boatyards. If you see one you like in particular, ask to take a digital photo. This can be transferred to your computer and using Microsoft Paint, reduced to just an outline. Using Paint, open the photo you took, and using the eraser function, erase all but the outline of the name board, then using the line drawing functions, redraw the outline in black.

If this is your beginning project, it is probably best to use a less complex design. For our first project, we chose the uppermost style shown in Figure 1. This design, as well as the one below it, is simple enough to draw directly onto the wood without the need to generate a pattern using the computer.

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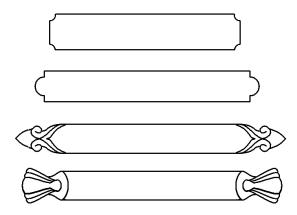


Figure 1 Nameboard designs

Microsoft Word has a large number of type fonts to choose from. Type the boat's name and continue changing the font type until you find the one you like best. This is more difficult than it seems when you have dozens to choose from. Also, some look better in bold typeface others in a normal typeface. If you can't decide, print the name in each of the top 10 font choices and compare them until you can eliminate all but one.

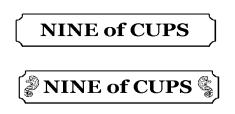


Figure 2 – Nameboard with graphic design

You may or may not want to add some touch of graphics or a logo to your name board. On *Nine of Cups*, we developed a logo that incorporates two stylized seahorses. The entire logo would not look good on the name board, but we liked the idea of adding the seahorses. We used Paint to

extract the image of the seahorses from our logo, and then we edited and highlighted the image for use on our name board. The Internet, your clipart files and your own creativity are all good sources for graphics. Try to make it as close to actual size as you can. Figure 2 shows how the design of our name board looked at this stage with and without the graphics.

The next step is to generate a pattern. If we had chosen a more complicated design for the name board, we would print three patterns: one that consists of the outline of the name board, one for the graphics, if any, and one with the lettering template. With the design we chose, we could draw the outline directly onto the wood, so we needed to print only the patterns for the lettering and graphics. Using Microsoft Word, type the boat name using the font style you selected. Next, change the font size to 300 for the text. Now, with the zoom set to 100%, measure the letter height on the screen. The printed size probably won't be exactly the size as on the screen, but it will be close. Change the font size as needed until the letters are the correct height. The letters will be easier to carve if the height is between 2 and 4 inches. Then print one page and measure the height of the letter. You may have to go back and change the font size a bit to get exactly the right height. When you are happy with the letter size, print them all. It will take several pages to print the entire name. Once they are printed, cut and paste the letters together into one long banner. Repeat the same process for the graphics using Paint.

Cutting and Shaping the Wood

Now we are ready to begin cutting and shaping the wood. Make sure both edges are straight. If

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not and you have a table saw, feed the board through it, then flip it over and cut the other side. If you are using a jigsaw, clamp a metal yardstick to the board to use as a cutting guide and cut both sides.

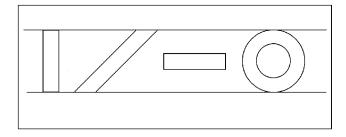
Now draw the lines for the ends. If you have printed a pattern design for the outline of the ends, tape the pattern to the wood, slide some carbon paper under the pattern and trace the outline using a ballpoint pen. Before you remove all the tape, lift one side of the pattern and make sure the lines are all visible on the wood.

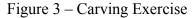
If you are drawing the lines directly onto the wood, use a pencil, straightedge and compass or circle template. To draw the corners of the uppermost style of Figure 1, we had to root around to find the right circle template. A small can of tomato paste or the lid to a can of WD-40® were both about the right size. Once the ends are drawn, use a bandsaw or jigsaw to cut the curved ends. Smooth the cuts using 80 grit sandpaper. Sharp edges will cause the finish to deteriorate more quickly, so we want to radius or chamfer all edges. Use a router if you have one to put a 3/8" radius on the edges of the front face and a 1/8" radius all around the back edges. If you don't have a router, use a sander and files to make the radii. Use sandpaper to remove any saw marks or imperfections

Woodcarving Basics

To learn the basics of woodcarving and carving letters, there is an exercise developed by David Hassell in his excellent reference book on woodcarving[1]. This exercise will teach the basics of handcarving letters. Part of the carving process is learning the differences in technique when you are carving with the grain of the wood versus across the grain. This exercise will help you master both techniques.

First, draw the four symbols shown in Figure 3 on the extra wood you bought. You will need a piece of wood 15"-18" long and 4"-6" wide. Using a pencil, draw two horizontal lines 2-1/2" apart on the length of the board. For the first symbol, draw two parallel vertical lines 5/8" apart. For the second symbol, draw two parallel lines at a 45degree angle, again 5/8" apart. The third symbol is identical to the first, but rotated 90 degrees.





For the fourth symbol, mark the center point between the two horizontal lines and using a compass, draw a circle that extends just slightly outside the two lines. Reduce the radius size of the compass by 5/8" and draw another circle inside the other, using the same center point. Photo 2 shows the wood with the lines drawn.

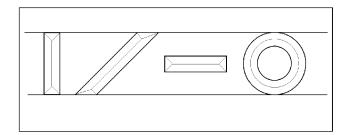


Figure 4 – Split stop lines

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Photo 2: Draw exercise lines on a scrap piece of wood.

Next, draw the lines in the center of each symbol shown in Figure 4. These are called split stop lines because they will prevent the wood from splitting beyond them. In the first symbol, draw a line from each corner at a 45-degree angle. They should intersect in the center of the symbol. Now draw a vertical line between the two intersection points. The third symbol is done in the same fashion. The second symbol is slightly different because the angles are not 90 degrees. The split stop lines in this symbol should bisect each corner and will be different lengths. Connect the intersection points with a line along the center of the symbol as shown. The split stop line for the last symbol is a circle with a radius of 15/16". Photo 3 shows the wood with the split stops drawn

Begin carving the first symbol with the split stops. Place your 1" chisel on the centerline at its intersection with the upper diagonal split stop lines. Holding it at a 90 degree angle to the board, tap it lightly with the mallet, just enough to break the surface. It does not need to be very deep. Move the chisel down and repeat until you reach the lower intersection point. For the diagonal lines, use the $\frac{1}{2}$ " carving chisel. Place it along one



Photo 3: Add split stop lines to carving exercise.

of the diagonal split stop lines, and again, holding it at a 90 degree angle with the board, hit it lightly with the mallet. The chisel should be angled so that it barely breaks the surface at the corners, while being buried 1/16" or so at the intersection. Refer to photos 4 and 5.



Photo 4: Defining split stops

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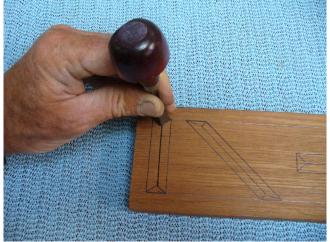


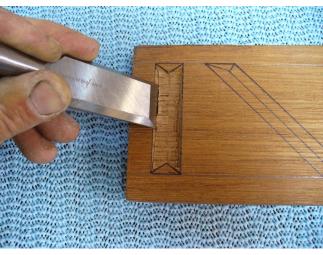
Photo 5: Defining diagonals

Next, place your 1" chisel on the on the left line of the symbol at a 45 degree angle. The chisel should be about even with the intersection point. Lightly tap the chisel with the mallet two or three times. Now move the chisel to the next part of this line and again tap it with the mallet. Now rotate the board 180 degrees and do the same on the other vertical line. You are going to repeat this process, continually rotating the board until you have formed a v-shaped trough with a clean line at the bottom. Refer to photos 6-8.

Carve the triangular sections at the top and bottom of the symbol next. Using your small angled chisel, carve out the small triangle remaining on each vertical line up to the diagonal split stop line. The same 45-degree angle should be maintained. Then gently...very gently... slice along the top vertical line. If it resists you and begins to split, you are working against the grain. Rotate the board 180 degrees and work from the other direction. Continue carving the wood away until the small triangle at the top of the symbol descends to the intersection point. It should be at a 45-degree angle and have clean straight lines (photos 9 and 10).



Photo 6: Carving the first symbol. Begin by placing your 1" chisel on the on the left line of the symbol at a 45 degree angle.



Photos 7 & 8: Lightly tap the chisel with the mallet two or three times and move the chisel to the next part of the line and repeat. Rotate the board and repeat until you have formed a v-shaped trough with a clean line at the bottom.



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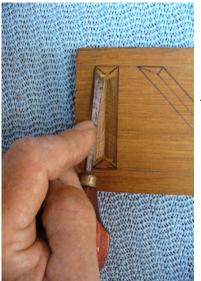


Photo 9: Carve the triangular sections at the top and bottom of the symbol next. Using your small angled chisel, carve out the small triangle remaining on each vertical line up to the diagonal split stop line.



Photo 10 : The same 45-degree angle should be maintained. Then gently...very gently... slice along the top vertical line.

The last step is to examine the sides of the symbol very closely. You want smooth straight sides and straight, clean lines. Use a combination of the angled chisel and small files to smooth the sides. As the final step in the smoothing process, I use a folded piece of 80-grit sandpaper.

Carving the diagonal symbol is done in the same manner, except the wood will have more of a tendency to split outside the lines and you will find that you have less control as you carve closer to the grain. Your technique will have to be different than before and you will find you will need to be less aggressive with your cuts. You will have a bit more control if you carve towards you rather than away from you.

Carving the horizontal symbol is the next step in difficulty, and requires a different approach. As you carve the long horizontal lines with the grain, the wood will want to start splitting away from the line. Make sure your chisels are freshly sharpened. Start as before by defining the spilt stop lines with the chisel and mallet for the centerline and the small angled chisel for the diagonal split stop lines. Next use the angled chisel to carve the two triangle shapes at the ends of the symbol. Carve from the outside vertical line to the intersection point, maintaining the 45degree angle. Continuing with the angled chisel, slice along the centerline at a 45-degree angle, starting about 3/8" from one intersection point and ending 3/8" from the other intersection point. Rotate the board 180 degrees and do the same down the other side of the board. Continue making passes along each side as you slowly back away from the centerline towards the outside lines. Be very careful as you near the outside lines to avoid splitting the wood outside the lines. Keep the angle consistent and eventually you will have the v-shaped trough. Clean the lines with the bent chisel, then file and sand as before.

To carve the last symbol, yet another technique is used. Begin with the skew and mallet, and maintaining a 90-degree angle, score the

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centerline all the way around the circle. As before, the wood is most likely to split as you carve closer to the grain, so to control this tendency as much as possible, begin your cuts at these points. Using the small angled chisel, start at the bottom of the inside circle and carve at a 45 degree angle towards the center, working in a clockwise direction towards the 9 o'clock position. Refer to photo 11. Then starting at the 12 o'clock position, work counter clockwise to the 9 o'clock position. Likewise, starting at the bottom of the inside circle, carve a 45 degree angle working towards the 3 o'clock position, and finally work from 12 o'clock to the 3 o'clock position. Once you have made one pass around the entire inner circle, you will then work from the centerline outward. Make several passes carving a little each pass and maintaining the 45-degree angle until the chisel reaches the scored inner circle.

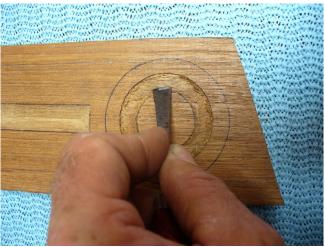


Photo 11: Slice from the inside radius toward the centerline

Now score the outside radius, and using a gouge, begin slicing from the outside radius toward the centerline. Work slowly and patiently. Avoid burying both edges of the gouge at one time. After you have made several passes, take the angled chisel and begin slicing along the outside radius in a counter clockwise direction, maintaining the 45-degree angle. Alternate with the gouge and the angled chisel working towards the centerline from both sides until the v-shaped trough begins to form. Clean the sides and the centerline with the angled chisel, then file and sand until it is perfect.



Photo 12: Finished exercise board

Photo 12 shows the finished board. Allow yourself a few minutes to admire the fine work you've done, then flip the board over and repeat the entire process on the reverse side. This is important, both to hone the skills you developed doing the first side, and to practice with a grain that runs differently than the opposite side.

Block Letter Carving

Every block style letter is composed of segments, vertical, horizontal, diagonal and round segments, identical to the four symbols in the previous exercise. If you remember the technique used to carve each of these segments, you can carve any block style letter.

To transfer the pattern to the wood, place it on the name board as centered as possible and hold in place temporarily with tape. Measure the distance from the letters to the top, bottom and both ends, and adjust the pattern until it is exactly centered.

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Slide carbon paper under the pattern, and secure everything in place with several more strips of tape. Check the measurements once again to be sure the placement is correct. Using a ballpoint pen, draw over each of the lines. If you use a color other than black, you will be able to see where you have drawn. When you are done, remove the tape from one side only, slide the carbon paper out and lift the pattern just enough to make sure all the lines can be seen. If it looks good, remove the pattern.

Next, draw the split stop lines on all the letters. There should be a centerline for each letter segment and each corner or point should have a line bisecting it. Using the same technique as in the exercise before, score all the split stop lines. Next, using the same techniques for each type of letter segment (vertical, diagonal, horizontal and round) carve each segment as you did in the exercise. Clean the lines, file and sand as before. Assuming you are careful and work slowly, there is nothing to it once you master the exercise.

Carving Script Letters and Graphics

Script letters and graphics are combined because the techniques for carving them are similar. Both are often easier than carving block letters because the eye will catch every flaw in a block style letter whereas in script and graphics, the eye is more forgiving of minor flaws and discrepancies.

The process is almost the same as for block letters. Each line segment should have a split stop line. The straight-line segments will have split stops just as in a block letter. The curved segments will have split stop lines that follow the center of the curve. Use the same techniques as for the exercises, paying close attention to the direction of the grain. Carving the graphics has a somewhat different approach. Practice making the logo or graphic on a scrap piece of wood before carving it on the name board. I only use split stop lines on line segments that are wide and for which the 45degree v-shaped trough is desired. Otherwise, I use the various carving tools, especially the spoon shaped gouges, to carve out the image. I usually work from the higher parts to the lower or deeper parts, rotating the board frequently as the angle to the grain changes.

Mounting Considerations

After the sign lettering is completed but before we begin finishing the name board, we need to drill the holes that will be used for fastening the name boards to the boat. Since I know I will be removing the boards from time to time for maintenance, I chose to use ¹/₄" stainless flathead bolts mounted through the hull and held in place inside the hull with nuts and washers. Figure 5 below illustrates how this is done.

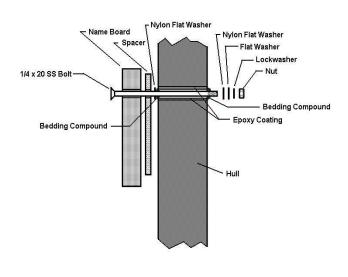


Figure 5 – Mounting the nameboard

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Whenever I drill a hole in the deck or hull, I always drill it slightly oversized and using a cotton swab, coat the inside of the hole with epoxy to prevent water from penetrating into the laminate or core material. A spacer between the back of the board and the topsides will allow water to drain away and air to circulate. The spacers can be fabricated out of acrylic or Starboard® or similar material. They should be $\frac{1}{4}$ " to $\frac{1}{2}$ " thick, and 1-1/2" wide by 3-1/2" high. Before mounting, put a small amount of bedding compound around both sides of the hole in the hull.

Finishing

Nine of Cups has a lot of brightwork, and over the vears we have tried almost every type of finish traditional varnish with and without epoxy bases, 2 and 3 part polyurethanes, Cetol®, oils and natural. The only thing we haven't tried is painting the wood, something we have been sorely tempted to do from time to time. In our opinion, however, the look of nicely finished brightwork more than makes up for all the work it takes to keep it that way. It is a highly personal decision, but we prefer either traditional varnish or multi-part urethane finishes. The varnish requires more frequent maintenance, but is much easier to strip back to the bare wood when it becomes necessary to do so. Varnish will require maintenance coats about every three months in the tropics and every 6-12 months at the higher latitudes, and require stripping and refinishing every 2-3 years. In theory, urethane may go 1-3 years between maintenance coats, and require stripping every 3-5 years. In reality, we have never had urethane last that long. All it takes is a little moisture to work its way under the finish, and it then no longer matters whether it is varnish or urethane, that section of the surface will soon need to be stripped and refinished. The moisture gains entry any number of ways: a minute gap in

the caulk between the wood and fiberglass, a ding from a wayward winch handle or tool, the dinghy banging against it as it is raised or lowered in a windy anchorage, some official with rocks in the treads of his shoes as he boards us to check our papers. For this reason, we have switched almost entirely to traditional varnish, knowing it will take a lot more work to keep it up.

On our name boards, there are no caulked seams, it is unlikely I will be clumsy enough to drop a tool on them, and no one will walk on them, so this could be the one exception to our varnishonly rule. A longer lasting, multi-part polyurethane finish has much in its favor. We still use varnish for our name boards, primarily because in South America where we have been cruising for the past three years, varnish is available everywhere, and polyurethane is much harder to come by. The next time we refinish our name boards, we will probably be back in the U.S. and we may give polyurethane a try.

To begin the finishing process, sand all the letters once more with 100-grit sandpaper and go over the surface with your palm sander. Make sure there are no scratches left in the surface. Then wipe the entire surface with a tack cloth.

Apply two base coats of epoxy. I prefer West System® epoxy for this application. Use the #105 resin and the #207 clear hardener. The first coat is the most important. If it does not bond with the wood, it will not create the essential moisture barrier. The West System engineers suggest heating the wood a bit by placing it in the sun or even wrapping it in black plastic. You can also dilute the epoxy slightly with denatured alcohol or lacquer thinner, but no more than 5%. Mix the epoxy according to the instructions and apply a

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thin coat on the edges and face with a disposable bristle brush. Allow it to dry overnight. Apply a coat to the backside, wiping off any epoxy that drips down the edges. Allow it to dry overnight.

Prior to the second coat, sand all the letters with 80-grit sandpaper until they are smooth. Then use the palm sander with 100-grit sandpaper to sand the front surface smooth. Make sure you wear a mask for this process and do the work outside if possible. Epoxy dust is especially toxic to your lungs. Apply a second coat to the edges and face and allow it to dry overnight. Sand and coat the backside and again, let it cure overnight.

If you decide to use varnish, you will now apply 8 coats front and back, with a day's cure time between all coats. Use a top quality varnish and brush. After each coat is applied, brush the letters with a small artist's brush to remove any excess varnish that may have pooled in the letters. Sand with 220-grit sandpaper befroe the first coat and between each coat and use a tack cloth to remove any dust. Open a fresh can of varnish for the final coat. Some people prefer using a sponge brush for varnish. Others, myself included, prefer using a good quality badger hair brush. If treated well, it will last years.

If you are applying polyurethane, you will need the polyurethane, catalyst and thinner, and in some cases an accelerator. Make sure you specify that you are brushing the urethane – some products use a different catalyst or accelerator for brushing applications. Follow the manufacturer's application notes and pay especially close attention to the part about respirators and protective clothing.

Applying the gold leaf

The gold leaf is what makes your name board a real work of art. Properly applied, it will last indefinitely, far longer than the varnish (or wood for that matter) under it.

There are two gold leaf options. One is to use 24carat gold leaf, which comes in small delicate sheets. The other option is to use a faux gold leaf. The faux gold is much cheaper, and when first applied, looks reasonably good. The problem is that after a month or two of exposure to sea air, it will turn green. You can prevent this by coating it with lacquer or varnish, but then you lose the bright luster. If you are on a tight budget, this may be an acceptable alternative, and you can always remove it and gild it with real gold later. There are other materials that can be used such as aluminum or platinum, which you may want to try at some point, but we use 24k gold leaf. I have listed sources for the leaf at the end of the article, or you can find it easily enough using an Internet search. I have had good results with both Italian and German gold leaf.

You will need about one sheet per letter for 2-1/2 inch letters or 2 sheets per letter for 4-inch letters. The leaf comes in books of 25 sheets. The price varies a great deal depending on the price of gold at any point in time. The last time we ordered it, the cost was roughly \$1.50 per sheet, or \$37.50 for a book.

There are three steps to the gilding process. The first is to apply a liquid called "size" that will cause the gold to adhere to the finish of the name board. Next you will apply the gold leaf, and the third step is to outline the letters.

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The gold leaf process has been around for many centuries, and many substances have been used for the size. Years ago, egg whites were used as size when applying gold leaf to glass, and it is believed the ancient Egyptians used human blood for size. As often as I manage to cut or gash myself in the course of some project, I can never depend on having blood available at the right time, so I purchase my size.

When you purchase size, you want gold leaf size. It will be available in either a quick dry or slow dry formulation. Once applied, the size will begin to dry, with a wet stage, a tacky stage and finally a dry or cured stage. The leaf must be applied during the tacky stage. If applied too soon, the leaf will become dull. If applied too late, it will not properly adhere. The quick dry size usually has an initial drving time of around 1-1/2 hours. and a tacky stage of about the same length of time. The slow size has a wet stage of about 24 hours and a tacky stage of about two weeks. If you are time constrained, buy the quick size. You can also buy both and mix them to get a tacky stage that is somewhere in between. A ratio of 50/50 will give you a wet time of 8-12 hours and a tacky time of about a week. A ratio of 25% slow to 75% guick will result in a wet time 4 hours and a tacky time of 8-10 hours

The size is a clear liquid and it is difficult to see where it has been applied, so we add some color to it. You can buy a small container of universal tint from most paint stores that is compatible with oil, water and lacquer based paints. I have found that either yellow or red tint stands out the best. You will also need a small artist's brush, a mixing stick, a small tuna can and something to use as a pallet such as a small square of plastic or piece of metal. Pour a small amount of size into the can. If you are mixing quick and slow size, pour the appropriate amounts of each into the can. Then add a few drops of the tint. You can add up to 10% tint, but you only need enough to make a yellow or red wash.

Dip the brush into the size and wipe the excess onto the pallet. Paint the size onto each letter. When the brush is dry, return to the pallet for more, adding more to the pallet as needed. Stay within the letter areas and make sure each letter is entirely coated with size with no holidays. When you are done, clean the brush in lacquer thinner and store it flat.

Set the boards in a location away from dust and wait for it to reach the tacky stage. Depending on the type of size you are using and the mixing ratio if any, you have a rough idea how long this will take, but it will vary depending on the temperature and humidity. You can tell when the size is ready by rubbing a dry knuckle across the surface listening for a squeaking sound, called the whistling tack. Another method is to press your knuckle into the size and pull it back. When the size is ready you will hear a snapping sound with no sensation of wetness.

Now you are ready to apply the gold. Work in a draft free area. The gold is very light and will blow away with the slightest breeze. For this step, use a larger #10 or #12 artist's brush. Use the brush to lift the gold from a sheet and place it onto the letter. Use the brush to fold any gold outside the letter back onto the size. Be careful not to let the brush touch the size directly. Gently paint the gold into place. Add more gold as needed until the entire letter is coated. There will be a lot of small pieces that can be gently swept

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into the small corners and serifs. As you dab and brush the gold into place, it will begin to smooth out and shine. Continue until all the letters are completed. Some small bits will stick to the board outside the letters creating a small shiny spot. These are easily removed within an hour or so of application using a degreaser or liquid soap on a soft rag.

After 24 hours or so, use a cotton ball to burnish and polish the gold. Use a gentle pressure to go over all the letters to achieve maximum shine. As before, use a liquid soap or degreaser to remove any small bits that have come loose and stuck to the board outside the letters.

The last step is the outlining of the letters. Outlining makes an amazing difference in the appearance of the letters – it enhances the edges and seems to bring each letter into focus. For this step you will need a fine #1 artist's brush, a pallet similar to the one you used for the size, the scrap exercise board we carved the symbols onto, and a quality enamel or topside paint in a contrasting color. Black, red and dark blue are all good colors.

Practice a bit using the piece of wood that you carved the symbols onto for the beginning exercises. If you are right-handed, you should work from left to right to avoid dragging your hand through the paint and vice versa if you are left handed. Transfer some paint from the can to your pallet, wipe the excess off the brush, and pull the brush along the edge of the letter. For the straight lines, begin at the lower left corner and pull the brush away from you. Then do the top and bottoms and then the right side. For the circle, start at the 9 o'clock position, pull the brush to the top of the circle, then do the segment from the 9 o'clock position to the bottom. Replenish the paint after each stroke. After a little practice you will be ready to do the name board. Take your time and be patient, the end is in sight.

The only thing left to do is to mount the name boards. Since you have already drilled and prepped the holes, all you need to do now is apply a little bedding compound and bolt them in place (Figure 5). Step back and admire your hard work. If you are in an anchorage, get in the dinghy and paddle out to see how good they look as the sun reflects off those gold letters. Making a beautiful set of name boards took a lot of work, but it was worth every minute of time.

Maintenance

Here is one last word about keeping them looking as good as they did when you first mounted the name boards. Whether you used varnish or polyurethane, you should routinely apply a bit more varnish to the most exposed surfaces. Every few months, I lightly sand the top and ends of each name board and apply a couple of coats of varnish. The top gets the most ultraviolet exposure and will be the first place to break down. Depending on what latitude we are, once every year or two, the face will have to be sanded, 4 or 5 coats of varnish reapplied, new gold leaf applied and the outlining done again. If we have been careful in our maintenance, the old varnish will not have to be stripped off.

Eventually, there will come a day when the name board will have to be stripped and refinished. If it has been reasonably maintained, this means stripping back to the epoxy and building back up from there. If it has deteriorated such that the epoxy coating is damaged, it too must be removed. We find that a combination of heat gun

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and a small scraper works best to peel off the old finish on the flat surfaces. For the letters, the gold may have protected the finish, so that only a sanding is necessary prior to refinishing. Otherwise it will require sanding, filing and in some cases re-carving to remove all the old finish.



Photo 13: The finished nameboard

Suppliers Gold leaf and supplies: Esoteric Sign Supply 1646 Wilmington Blvd. Wilmington, CA 90744 (310) 549-6622

www.esotericsignsupply.com

Art Essentials of New York, Ltd. 3 Cross Street Suffern, NY 10901 (800) 283-5323

Tool and Supplies:

Woodcraft Company 210 Wood County Industrial Park P.O. Box 1686 Parkersburg, WV 26102 (800) 225-1153

Woodworkers Supply, Inc. 1108 North Glenn Rd Casper, WY 82601 (800) 645-9292

Hardwood Sources: Jamestown Distributors 17 Peckham Drive Bristol, RI 02809

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(800) 423-0030 www.jamestowndistributors.com

Anchor Hardwoods Company 6014-R Oleander Drive Wilmington, NC 28403 (910) 392-9888

Epoxy:

West Systems Epoxy Gougeon Brothers, Inc. P.O. Box 908 Bay City, MI 48707 (989) 684-7286 www.westsytem.com

[1] Woodcarving, David Hassell, Tiller Publishing, St. Michaels, MD, ISBN 1-888671-14-9

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