

Figure 14-37. Irregular parallel curve cutting can be accomplished this way. Be sure the first cut that you do freehand is sanded smooth.

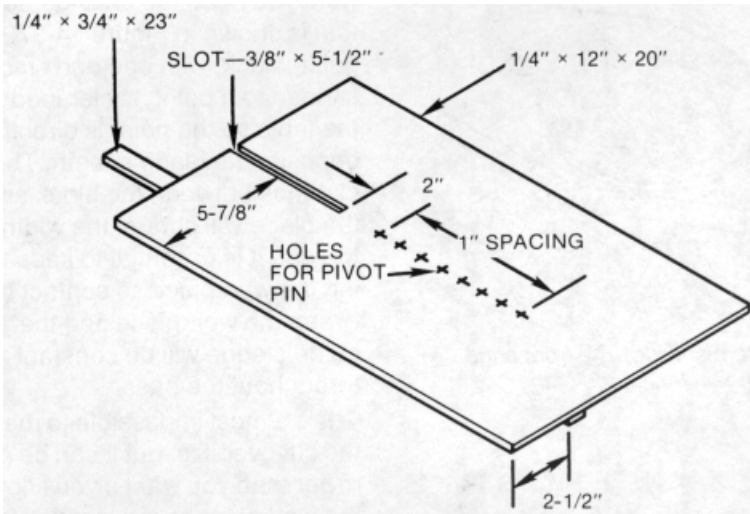


Figure 14-38. Construction details of a pivot sawing fixture.

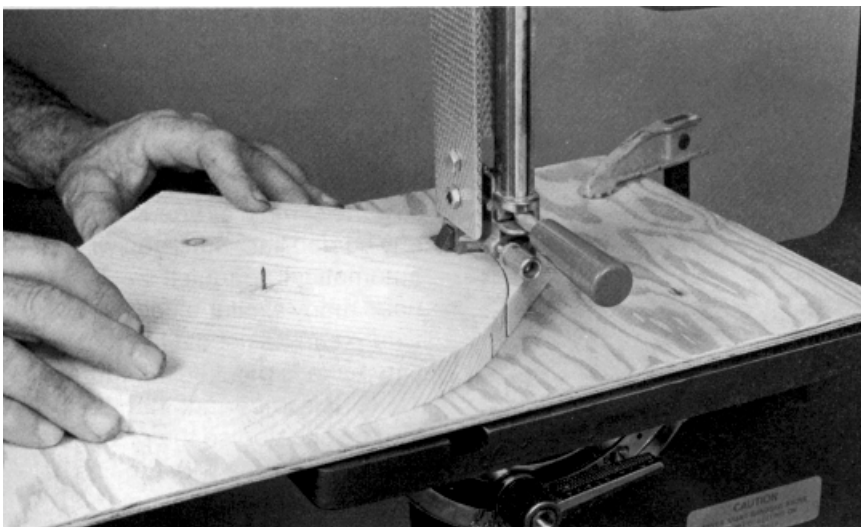


Figure 14-39. Using the pivot sawing fixture to cut a circle. Take it very easy when you start the pass to give the blade a chance to get into the cut.

Feed the workpiece slowly and keep the arc of the workpiece tangent to the extension all through the pass. If you don't maintain the correct contact between workpiece and extension, the blade will surely move off the line of cut. Be sure the blade is sharp and has no lead.

You can't work with an extension if the workpiece has an irregular or reverse curve. For such work you need the arrangement that is shown in Figure 14-37. The guide block, with one end smoothly sanded to a point, is clamped to the table so the point is directly opposite the blade's teeth. The distance between the block and the blade will control the width of the cut. It is essential to keep turning the workpiece so contact between the workpiece and the guide's edge will be constant throughout the pass.

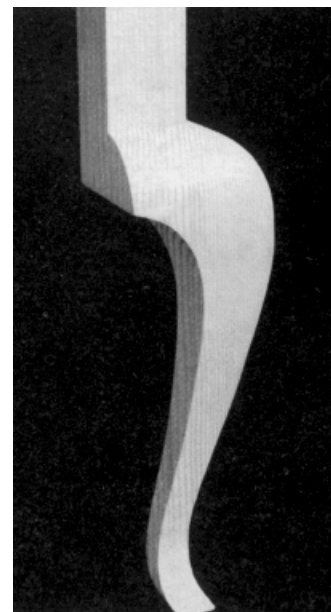


Figure 14-40. The classic cabriole leg is shaped by doing compound cutting, a technique that belongs almost exclusively to the bandsaw.

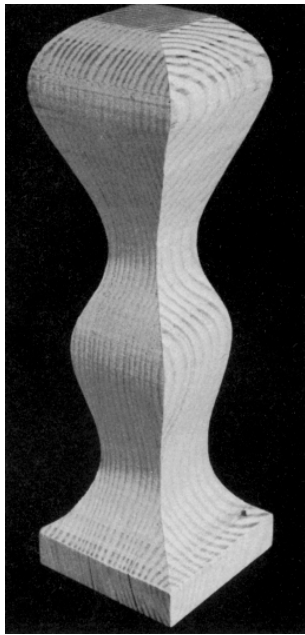


Figure 14-41. Unusual lamp bases can be made using the compound cutting technique.

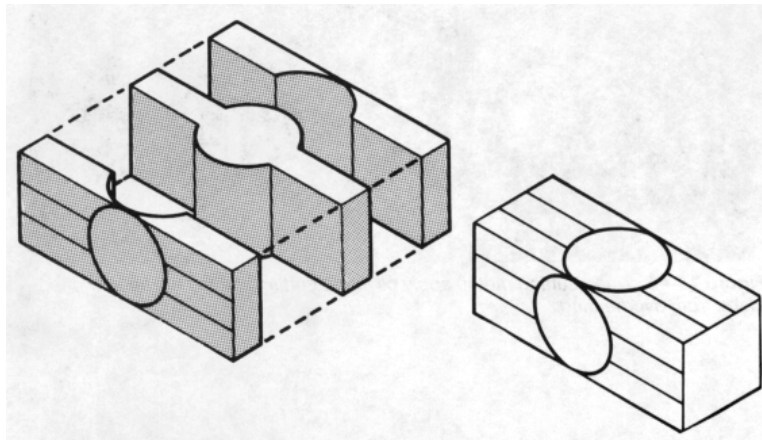


Figure 14-42. When doing the layout for compound cutting, the pattern must be marked on adjacent sides of the workpiece.

It is almost impossible to make the cut oversize, but it can be narrower than you want if you allow the workpiece to move away from the guide. You can use these techniques successfully if you handle the work carefully and don't try to hurry the cutting.

PIVOT SAWING

You can cut circles on the bandsaw the same way you would cut any curved line; but if you wish to automatically gauge the cut or need many similar pieces, a pivot fixture can be used. One that you can make is detailed in Figure 14-38. It is important that the fixture be situated so the pivot point is directly on line with the tips of the blade's teeth and that the blade be sharp and free of lead. The best way to work is to first cut the piece or pieces square with a side-length to match the diameter of the circle you need. Hold the workpiece against the blade as you press it down on the pivot point. When you start the blade turning, it will crowd the workpiece a bit, so you must be careful to allow the blade to work into the stock. After that it's just a question of rotating the workpiece to complete the pass (Figure 14-39).

COMPOUND CUTTING

By cutting the pattern in more than one side of the workpiece—compound cutting—you can make the stock appear to curve through three dimensions, as if you had carved it. This is an intriguing bandsaw technique that's useful on a wide variety of projects. You can use it to remove stock and simplify your lathe work, make cabriole legs for tables and chairs (Figure 14-40), or do "bandsaw sculpture"—animal shapes, patterned posts and rails, fascinating lamp bases (Figure 14-41).

The sketch in Figure 14-42 is a simplified version of how stock should be marked to prepare it for compound cutting. A pattern is used to mark the stock on two adjacent faces. The stock is bandsawed by following the pattern on one side of the stock. Then the waste pieces are put back in their original positions either by tack-nailing or by using masking tape. Then the workpiece is bandsawed on the second side (Figure 14-43). When the second phase of cutting is complete, the waste pieces fall away to reveal the finished piece.

Don't be too quick to discard the waste pieces. Some of them, as shown in Figure 14-44, end up themselves as interesting pieces that can be utilized on other projects.

CUTTING PARTICLE BOARD, PLASTICS, AND METALS

As mentioned earlier, your bandsaw will also cut materials other than solid wood and plywood. These include particle board, plastic, plastic laminates, and soft, nonferrous metals such as brass, copper, and aluminum. **Warning: Before cutting metals, clean sawdust out of the bandsaw because hot pieces of metal could ignite sawdust. Also remember that particle board releases toxic formaldehyde gas when cut. When cutting particle board, always work in a well-ventilated room.**

Caution: When cutting materials other than wood, always use a combination blade. You can ruin a woodworking blade immediately if you attempt to use it on tough materials like these. Even a combination blade will dull rapidly if you use it constantly for cutting these materials. Also, work at 'Slow' speed.

Feed the stock very slowly-give the blade plenty of time to cut. When cutting nonferrous metal, put a drop or two of oil on the pattern line every inch or so to help keep the blade from overheating (Figure 14-45). **Warning: If you're cutting round stock, such as pipe, hold it securely with a miter gauge or V-block to help prevent the teeth from catching it and spinning It out of your hands.**

Caution: When you're finished cutting particle board, plastics, or metals, remove the bandsaw cover and clean the tires thoroughly with a stiff bristle brush. If you don't, the filings and chips will become imbedded in the tires and damage them. Also clean the blade.

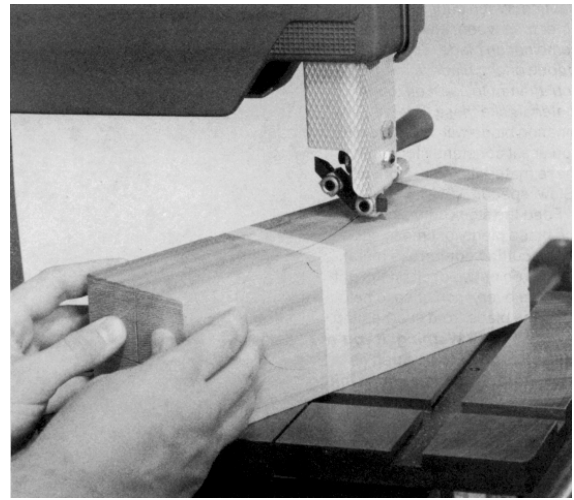


Figure 14-43. The waste pieces that fall away after one side of the stock is cut are replaced either by nailing or taping. Then the second side of the workpiece is cut.

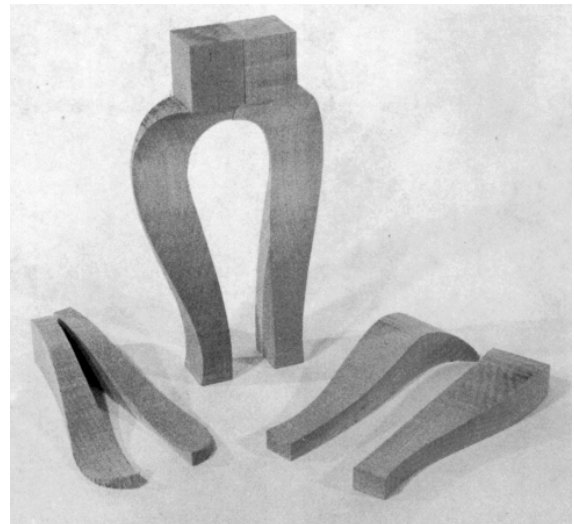


Figure 14-44. Don't be too hasty in discarding the waste pieces that result from compound cutting. They might come in handy on some future project.



Figure 14-45. When cutting metal, apply oil to the cutting line to help keep the blade from overheating.