CHAPTER 3.

OVERTURE.

When I first became aware of hollows and rounds I read about the heralded "half set." A half set of hollows and rounds is 18 planes, nine pairs, that incrementally increase in radius from 1/8" at the low end to 1 1/2" at the high end. The half set of planes is generally the even-numbered pairs in the previously referenced chart. (A full set is 36 planes, and also includes the odd numbers.)

Fig. 3-1. *A half set.* This pictured half set is nearly all that you will need to reproduce the various moulded edges of all period pieces, regardless of period. It's also much more than many hobbyists will ever need.

A half set of hollows and rounds is an extraordinarily comprehensive grouping of planes that allows the owner to produce a range of moulding profiles that exist in the smallest spice box and largest secretary. Centuries ago, the half set was often acquired over time.

For many users, myself included, the half set covers an unnecessarily broad range of work, and represents an undue expense. Many woodworkers narrow their plane choice down to match the scale of work that catches their fancy. For example, if you work only with 4/4 stock, then sizes above No. 8 may go unused. Starting with just a

single pair of hollows and rounds – and an efficient method to accurately establish rabbets and chamfers – allows the production of dozens of different profiles.

The simplicity of combining only one convex and one concave arc might seem limiting. There are, however, scores of profiles you will be able to produce with just a single pair of hollows and rounds. These profiles will often contain minute differences – adding a vertical or horizontal fillet, or flat, adjusting the size of that fillet, increasing the curvature or changing the general angle of the profile. These small differences are important and are often glossed over or neglected on a router table.

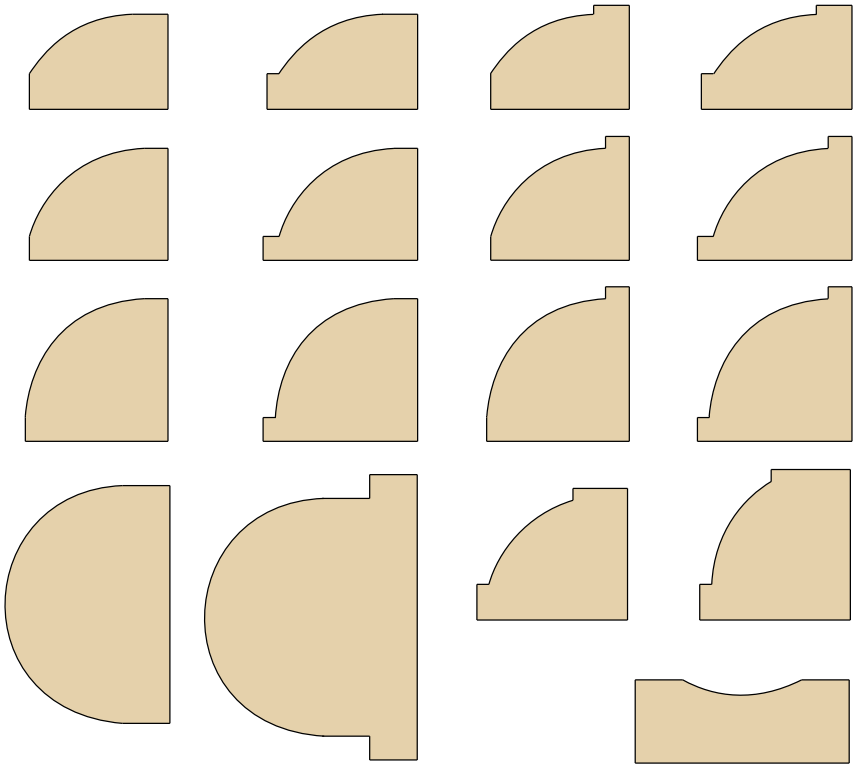


Fig. 3-2. *Small differences.* The differences between these profiles can appear as slight. To many woodworkers, however, they are significant. See more profiles on the following page.

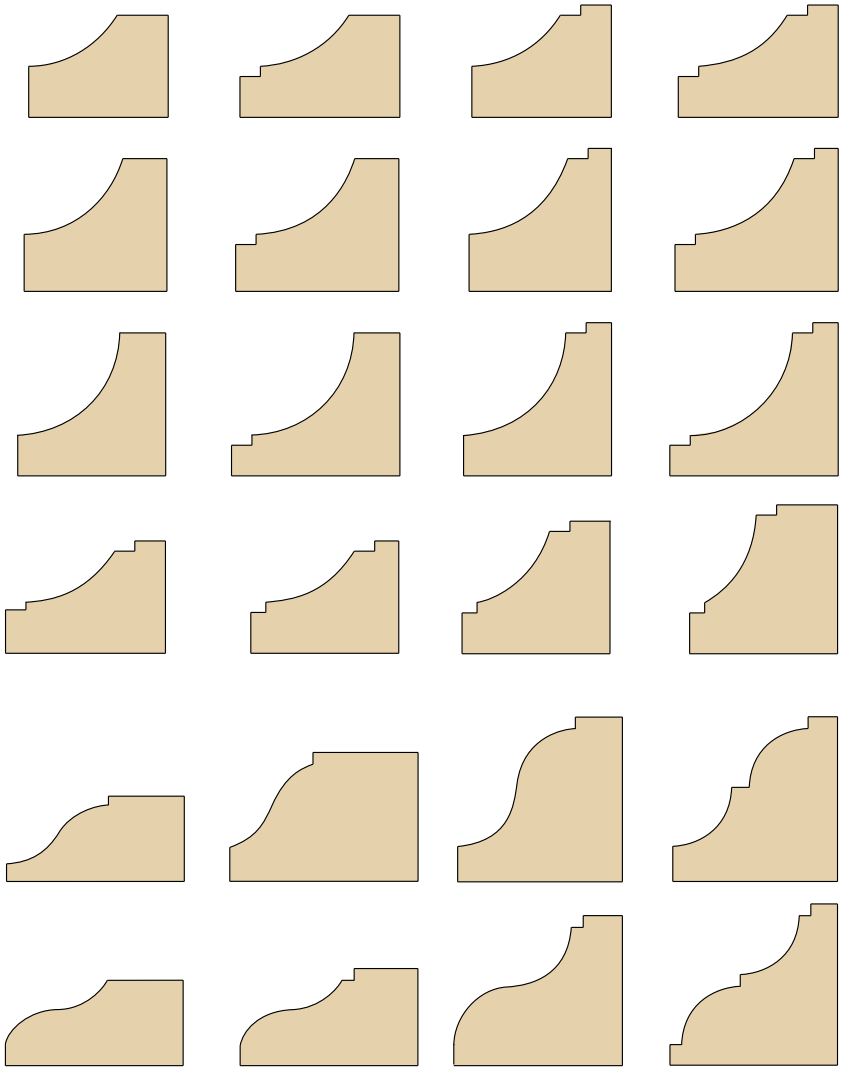


Fig. 3-2. (Cont'd)

Adding a second pair of hollows and rounds to your tool chest, a step I always encourage, increases the number of possible profiles far more than two-fold. Not only will you be able to create the 41 profiles shown above in two different sizes, you will also be able to mix the concave with the convex to form various cove and ovolo combinations and ogees. Additionally, you can mix concave with the concave and convex with the convex to form elliptical shapes. It is at this stage that you will unlock the true versatility of these planes.

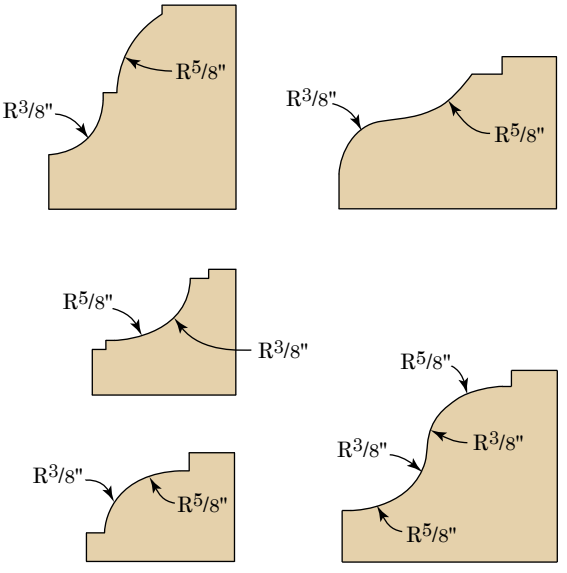


Fig. 3-3. *Add a pair.* A second pair of hollows and rounds will allow you to, when building a chest of drawers, make mouldings that complement each other. They will not be merely derivatives of the same circle.

The following are stepped examples of profiles that are primarily made with one pair of No. 6 planes. (A No. 6 was defined as cutting a radius of 6/16" or 3/8".) These profiles are a sampling that include the basic shapes, with a few basic modifications. You can combine and scale these to build large, intricate profiles that line and accent a piece of casework or a room.

CAVETTO (COVE).

A cavetto, or cove, begins with a rabbet, which acts as both a guide and depth stop for the work with the round plane. The layout and execution of the rabbet will be the focus of much of this book and is discussed in great detail beginning in chapter 4.

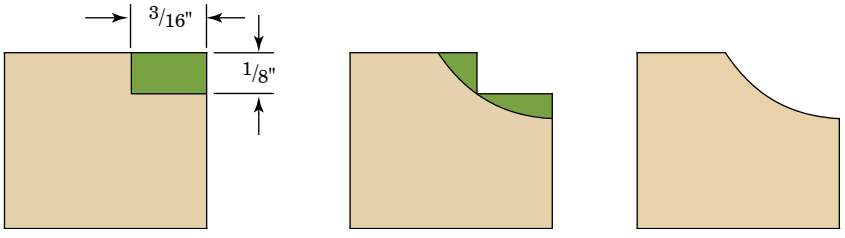


Fig. 3-4. *First a rabbet.* One rabbet followed by No. 6 round.

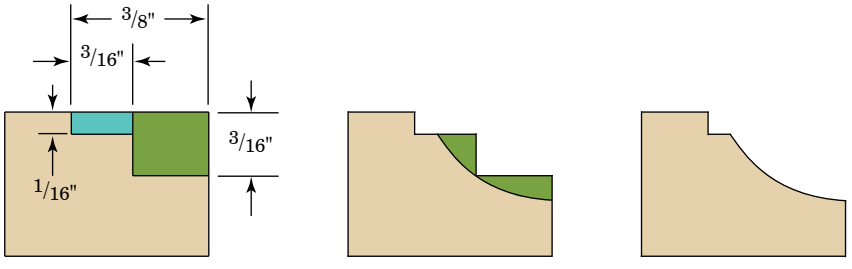


Fig. 3-5. *Two rabbets and one round.* Two rabbets followed by No. 6 round.

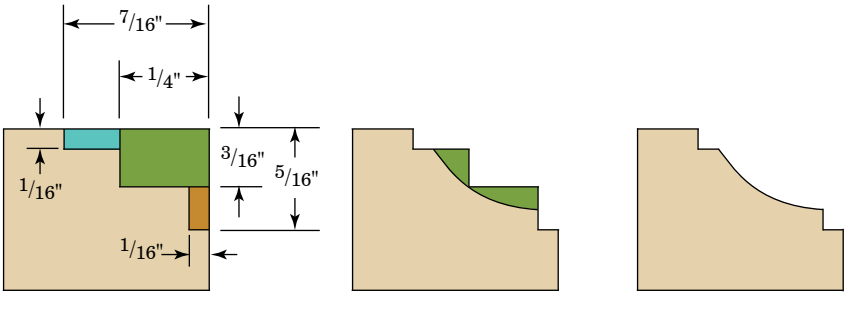


Fig. 3-6. *Add a rabbet.* Three rabbets followed by No. 6 round.

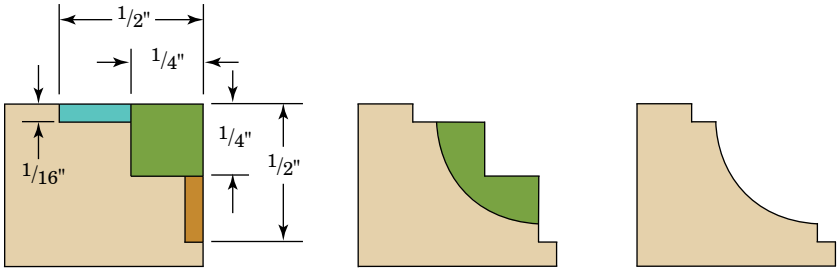


Fig. 3-7. *Make a 90° cavetto.* Widening the latter two rabbets, the turquoise along its width and the brown along its height, and rotating the round, results in a cavetto that is 90° of a circle.

OVOLO.

An ovolo, like all instances when you use a hollow, begins with a chamfer. The chamfer, like the rabbet above, serves as both guide and depth gauge for subsequent work with the hollow plane. Again, the precise placement and execution of this chamfer will be discussed in greater detail beginning in chapter 4.

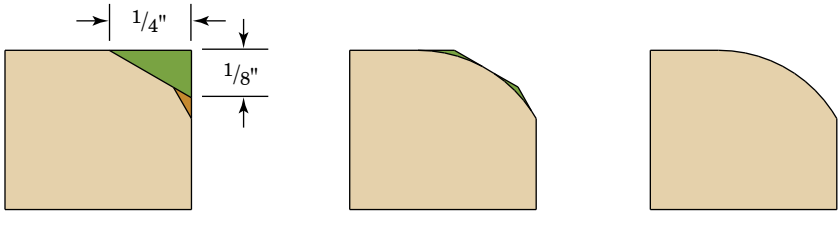


Fig. 3-8. *Basic ovolo.* One chamfer (or two) followed by a No. 6 hollow.

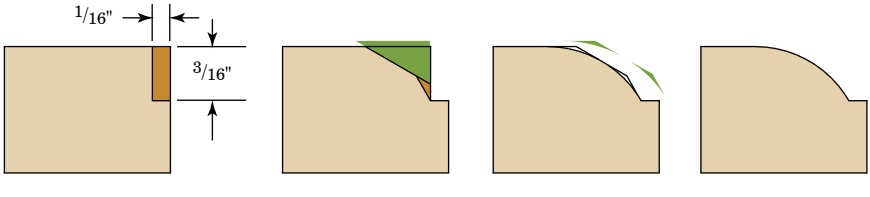


Fig. 3-9. *Add a fillet.* Adding a rabbet and shifting the chamfers introduces a single fillet.

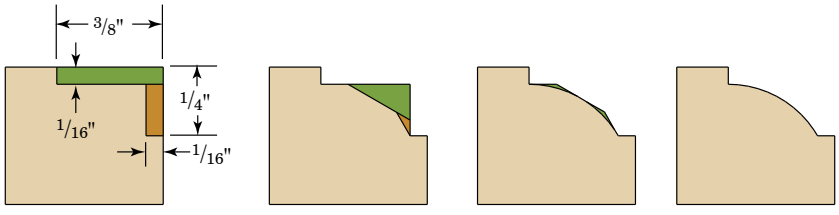


Fig. 3-10. *Two fillets.* Two rabbets with the chamfers results in two fillets.

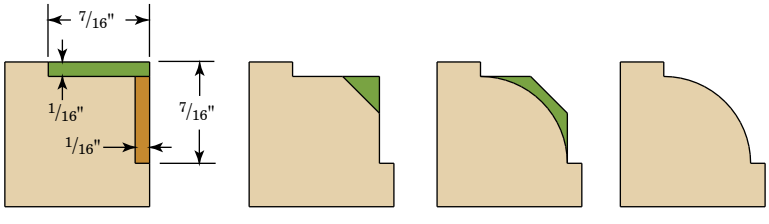


Fig. 3-11. *A 90° ovolo.* Increasing the width and height of the rabbets, while changing the angle of the chamfer, creates an ovolo that is 90° of a circle with two fillets.

TORUS (BULLNOSE).

When laid out in this way, two rabbets, two chamfers, and a No. 6 hollow create a bullnose.

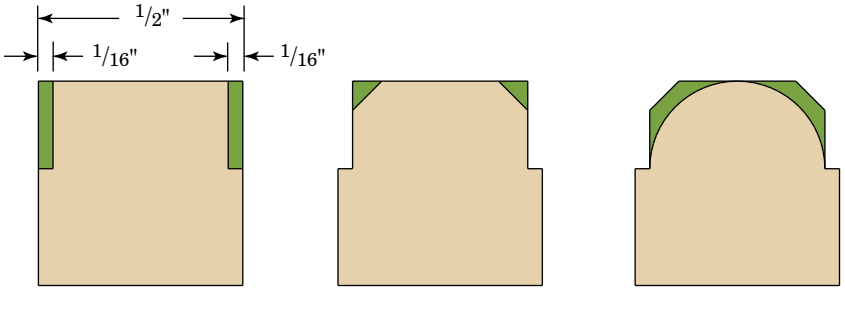


Fig. 3-12. *A bullnose.* Working from both corners of the stock can produce a bullnose.

OGEE (CYMA RECTA).

An ogee, or cyma recta, is achieved by combining the procedures for a cove and ovolo.

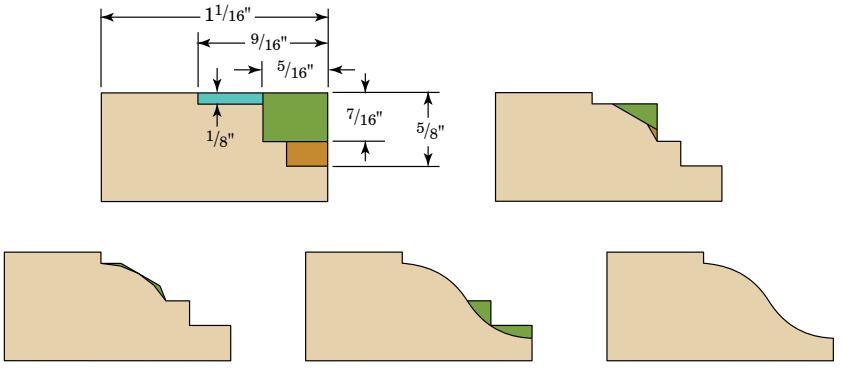


Fig. 3-13. *Combine the procedures.* A cyma recta is made by using both chamfers and rabbets. The result is a "S" curve.

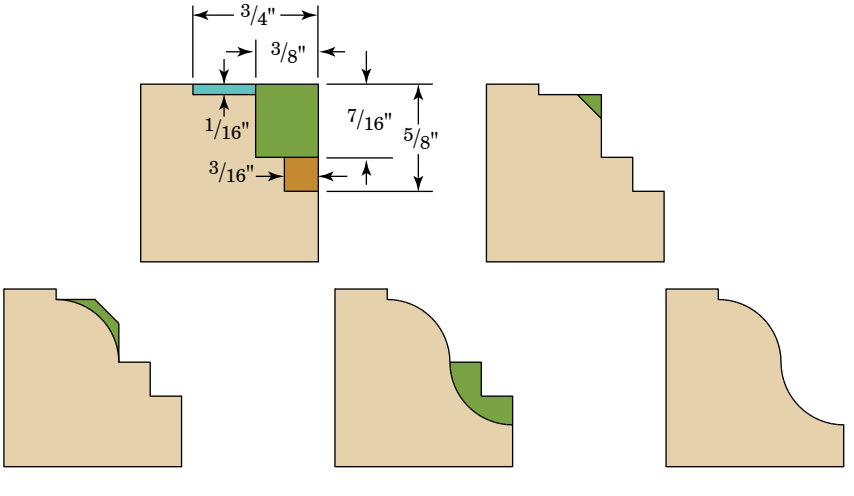


Fig. 3-14. *Change the rabbet.* Slightly deeper rabbets makes a difference.

REVERSE OGEE (CYMA REVERSA).

Minor changes to the rabbets can result in major changes to the profile.

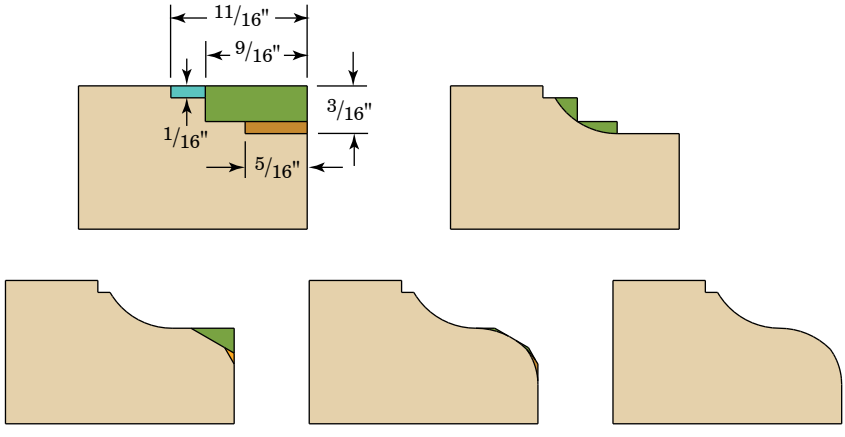


Fig. 3-15. *Reversing the order.* A cyma reversa is made using the same chamfers and rabbets, but the result is completely different.

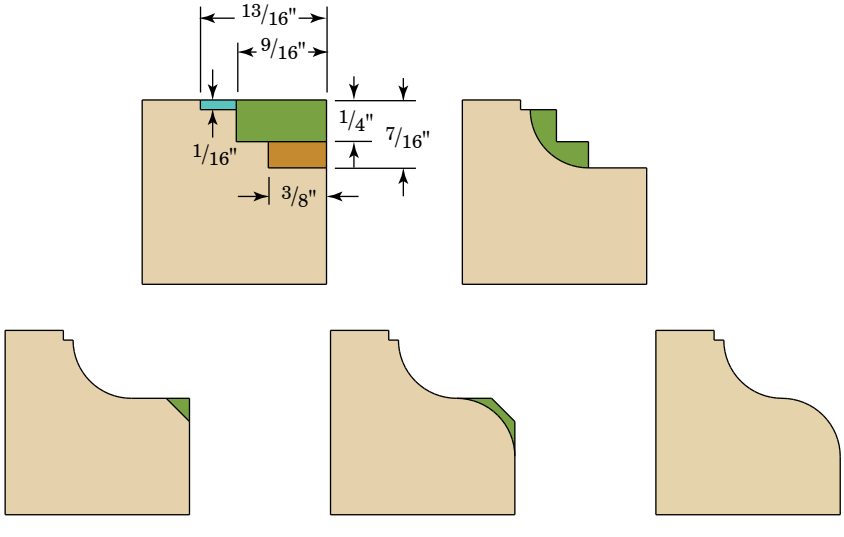
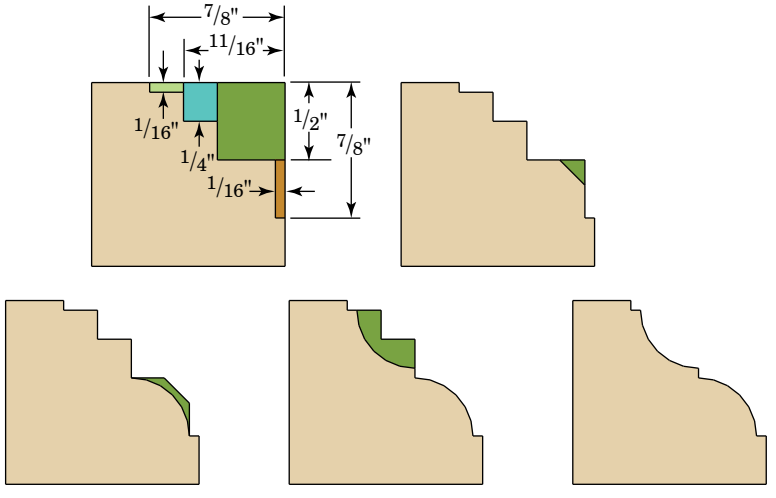


Fig. 3-16. *Change the rabbet.* A slightly deeper rabbet makes a difference.

OVOLO & COVE.



Figs. 3-17 & 3-18. *A deeper rabbet accelerates the changes.* Continuing to make small changes, in this case increasing the depth of the green rabbet, results in additional large differences.

SIDE BEAD.

A side bead starts with a snipes-bill plane that follows a gauge line, and it ends with a hollow.

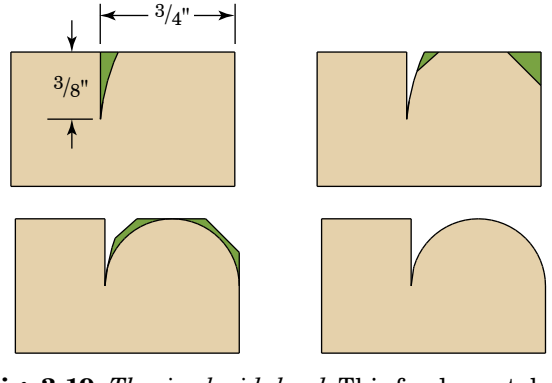


Fig. 3-19. *The simple side bead.* This fundamental profile uses two planes and just a few strokes to complete.

THREE-QUARTERS BEAD.

Executing the side-bead process on both faces of the corner results in a three-quarters bead.

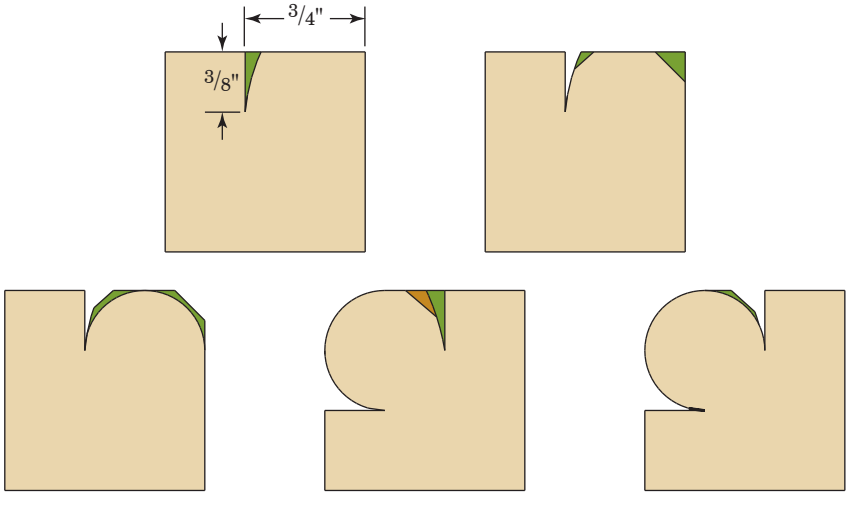


Fig. 3-20. *On both faces.* The three-quarters bead is completed using the same tools as for the simple side bead.

REEDS.

Executing side beads across the width of a board creates reeds.

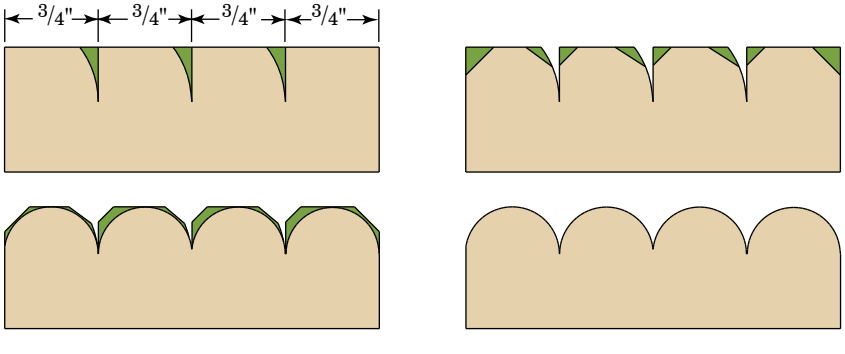


Fig. 3-21. *Reeds.* Once you master the beads, the reeds are not far behind.

SCOTIA.

A scotia introduces the side-round plane plus the combination of varying arcs to make ovular or hyperbolic shapes. Side-round planes are the subject of chapter 9. Like a round, this convex plane creates a concave profile. It is used in areas that a round cannot reach due to the plane body's dimensions. (A plow plane is also used here.)

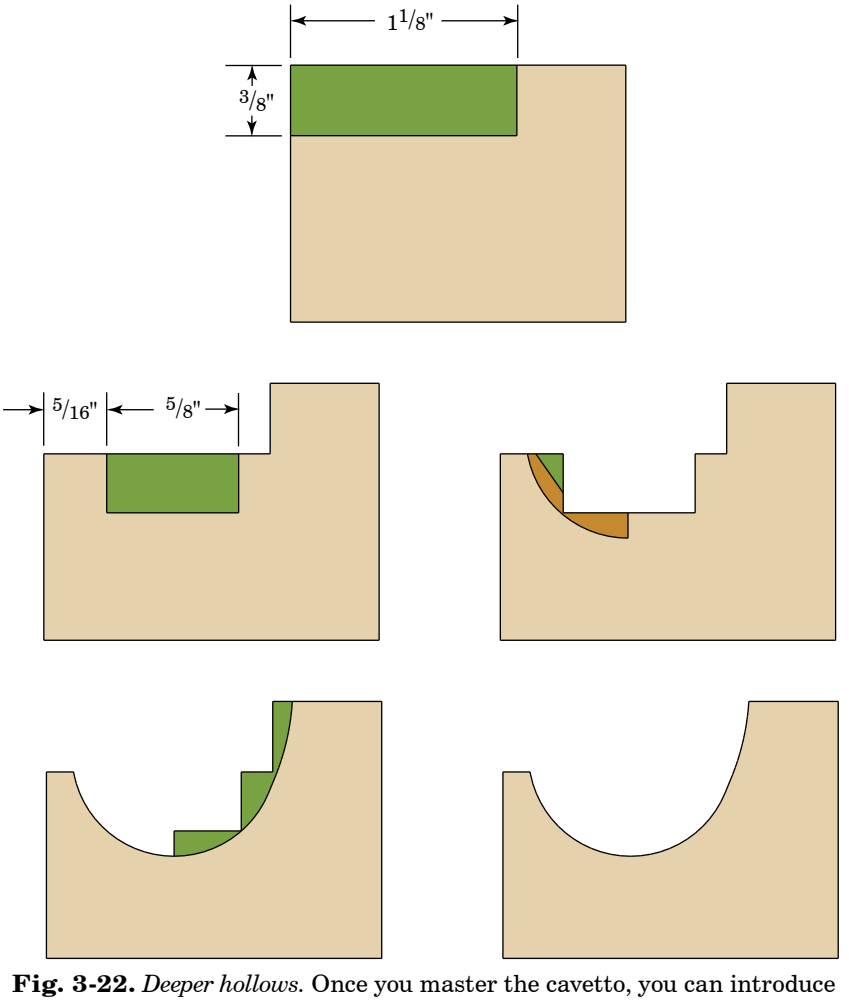


Fig. 3-22. *Deeper hollows.* Once you master the cavetto, you can introduce side-rounds to make more dramatic, hyperbolic shapes.

VENETIAN.

Rabbets, chamfers and a single hollow create a Venetian.

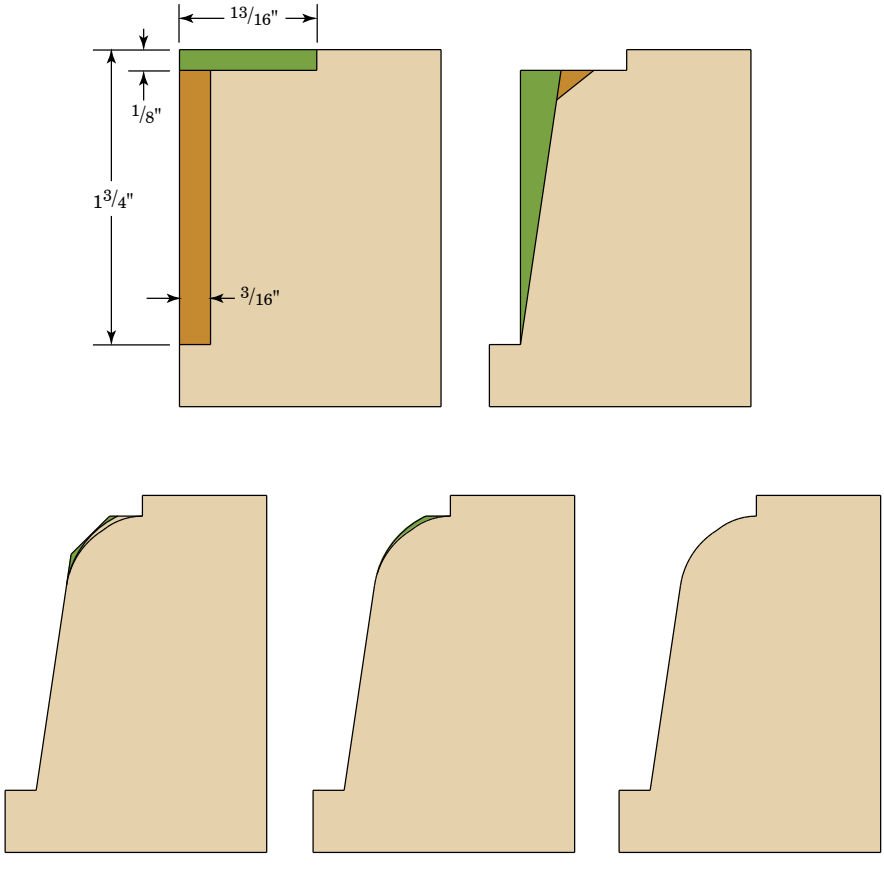


Fig. 3.23. *Convex drama.* This convex shape, with its sweeping Greek appearance, is still made with simple tools.

THUMBNAIL.

Executing the previous process with a second, larger hollow and snipes bill will create a thumbnail.

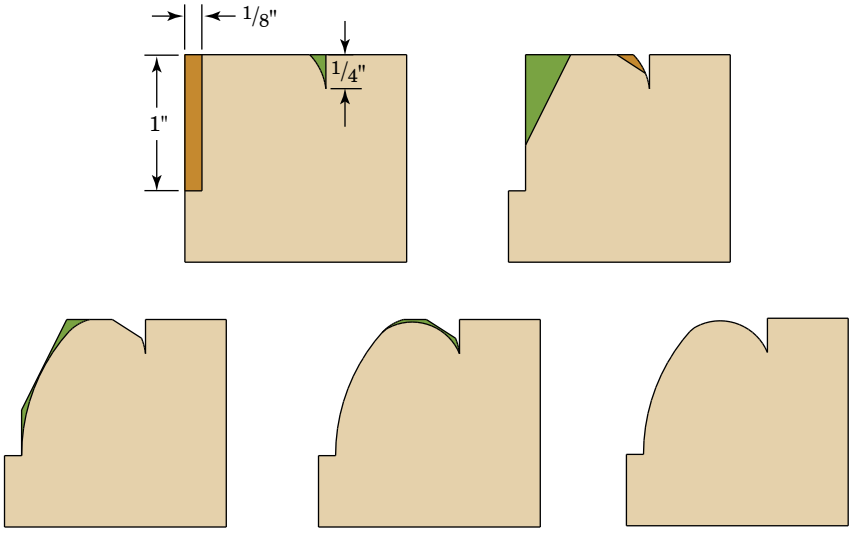


Fig. 3-24. *Thumbnail moulding.* Add a snipes-bill plane to the Venetian and you can create a thumbnail moulding.

The above profiles are a sample of the many mouldings that can be scaled, manipulated and combined to form the extraordinary range of mouldings that decorate the edges and faces of most American and European pieces of period work. The same or similar profiles appear both alone and in complex sequences throughout the centuries.

Looking at the above profiles and copying the layout in scale will produce myriad results. Learning the layout – why the rabbets and chamfers are where they are – and plane selection will eventually make reference to these pages unnecessary.

As the chapter's title stated, the previous examples are an overture to this book as a whole, a sample of what's to come. Learning to look at a moulding and know what planes were used and how to lay out the rabbets and chamfers to achieve a specific goal will be the purpose of the following pages.