

Basic Knife Cuts

By E. J. Tangerman

The two-sided knife instruction sheet pictured here was an outgrowth of a course in basic whittling I taught recently for our local historical society. In contrast to my earlier classes of 10 to a dozen, this class was 23, and was unusual in that it included persons of many ages, several art teachers, a couple of husband-wife teams, and three family groups of parent and child or two.

For this reason, and the fact that I was assigning 'homework' because of the accelerated schedule (only five two-hour sessions), I felt this sheet might be a refresher for my verbal and visual instructions.

Some of you who teach may wish to reproduce this sheet or something like it for your own use.

I have checked it out with two whittlers I know are particularly interested in knife techniques, H. M. (Mack) Sutter of Portland, Ore., and Paul Zecher of St. Petersburg, Fla. Both reminded me of the instructions for knife carving by Walter Sack in his *Holzschneiden* (Woodcarving), which reputedly explains the techniques used in Oberammergau. (This rather surprised all three of us when we were there because one assumes the formal German professional would not use the knife exclusively.)

The late W. Ben Hunt in his 1944 edition of his whittling book shows only three basic cuts—thumb, guided and chip—which correspond to my paring; left-thumb assist and slicing cuts.

Mack Sutter shows these three in his little instruction sheet (see excerpt) which he prepared for local Boy Scout instruction. At the time this was prepared, he and Ben held several discussions about it, and decided these three were basic. However, when Ben revised his book in 1961, he dropped the guided cut.

Mack and I both feel that this is a step in the wrong direction particularly in instructing beginners.

In my own first book, *Whittling and Woodcarving*, in 1936, I talked of four 'grips' for the knife, corresponding to the pointing, drawing, slicing and thumb-push sketches in my current

chart. I also wrote of eight cutting 'actions' or strokes: straight, sweep, stop or outline, chisel, scraping, tip, saw, and rocking.

I believe that the usual whittler is basically a craftsman, hence has some skill with tools. So he will instinctively use a knife correctly. Women, with their experience at paring fruit and vegetables, are much better trained to adopt the paring cut—which to me is the most important single cut in figure carving.

Men do better with the arm-controlled movements. But both soon learn to avoid the dangers and utilize the most effective cuts in any particular situation.

However, the rise in do-it-yourself crafts and the awakening interest in making traditional pieces because of the approaching 1976 Bicentennial are combining to bring into the field many persons who are not craftsmen and who therefore are likely to make all the mistakes in the book.

A preventive band-aid on the ball of the right thumb is a must while they learn, and possibly another on the middle joint of the right index finger (in this case to prevent blisters) seem almost mandatory. I've even heard of cases in which beginners wore a glove on the left hand! (That might have avoided my first scar, acquired over 60 years ago.)

Readers will have their own ideas for modifying, clarifying, or correcting these two pages. I'd appreciate any comments or suggestions.

THE KNIFE—Select a knife or knives to suit your intended work and location. A pocketknife is portable but less safe than a fixed-blade one. I carry two pocketknives, one regular size, one pen size—each with two blades, the smaller one pen shape, the larger B-clip (see sketch). This provides a long point when needed, and takes care of small details. Both have carbon-steel rather than stainless blades: they hold a better edge longer, at some risk of corrosion if not kept oiled. Cost in today's market can be 110 or more each.

For heavy cutting at home, I use a fixed-blade knife with larger handle; it's safer and easier to grip. For travel, a cork will make the blade safe. For tiny detail, a small, disposable-blade knife with pointed-up blades can be useful. Beware of knives that do not open and close securely; they may snap shut on your fingers. Avoid very long and/or thin blades or chuck handles which allow a blade to rotate or slip under pressure.

For most work, a 1¼-inch blade is long enough. Handles with finger impressions, ororkscrews Or devises (links for belt loops) only cause blisters • bruise a and discomfort.

Keep the knife sharp, so excessive force (hence poor control) is not required to cut with it, and so the blade cuts cleanly instead of tearing the wood

fibers. Good steel, properly sharpened, will hold its edge for a day or two in constant cutting of soft woods but may need touchup after an hour or two on hard woods. It is best to carry a small fine-grained stone in a case. Or touchup, even a strop (leather, oiled, mounted on wood) for a really keen edge for finishing. A good whittler usually has edges he can shave with.

A knife is an edged tool, hence worthy of utmost respect. Momentary loss of attention—frustration or fatigue, carelessness, watching TV or conversing—can cause trouble. Never put anything in front of a blade that you don't expect to cut. Beware of sticking the blade tip into the wood tightly, the blade may close on your fingers. Also, keep your hand out of the way when you close a blade, and never open two blades at once. Watch the heel of the blade; a finger that slips forward onto it may get a nasty cut.

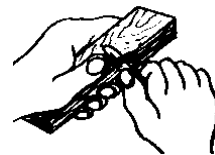
Don't hammer the back of the blade to drive it in. Never sharpen it on a wheel, unless it is nicked or chipped; then cool it twice as frequently as you think necessary to prevent burning. Don't use the blade to pry, and don't apply sidewise pressure. Don't pare fingernails, cut paper or cardboard, fiber-tapes.

The Basic Cuts

THUMB CARVING—Rest the thumb on the block of wood and pull the blade toward the thumb by squeezing the fist. By keeping the thumb rigid the blade should barely touch the thumb when the cut is complete. In case of doubt place a piece of adhesive tape around the thumb. Since this method offers the greatest control use it whenever possible.

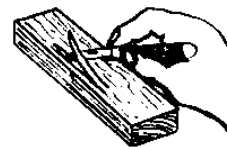


GUIDED CARVING—This requires a little practice but is not difficult. Place the back of the blade on the tip of the thumb of the opposite hand and push or rotate the blade through the piece of wood.

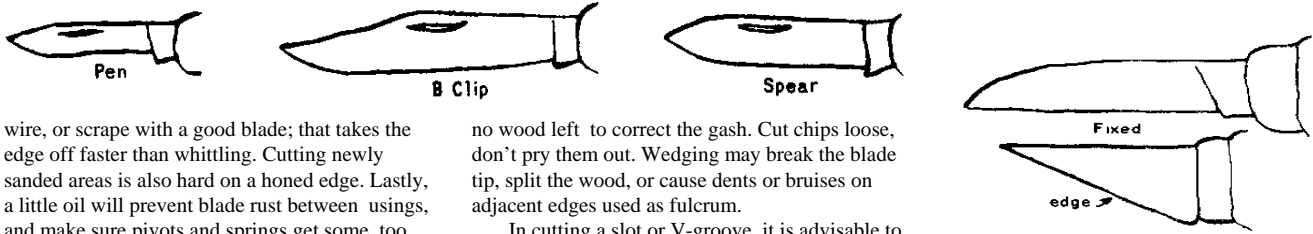


This method is necessary when can't reach to cut by thumb carving.

CHIPPING—The important things to do in chipping are keep the slant of the blade the same when cutting from both sides and cut the piece of wood entirely free ... don't pop or break it loose.



It is usually easier to make a series of light cuts on the same line.



wire, or scrape with a good blade; that takes the edge off faster than whittling. Cutting newly sanded areas is also hard on a honed edge. Lastly, a little oil will prevent blade rust between usings, and make sure pivots and springs get some, too. Pockets and hands are sweaty and sweat corrodes.

USING THE KNIFE – Adjust chip size to wood and design. Large chips can be cut in softwood, particularly with the grain, but mat tear out the end of the cut, “run” with the grain, or cause splits. The harder the wood and the grainer, the smaller the chip. Don’t try to finish details in one area before you rough adjacent ones, if the knife slips, there’s

no wood left to correct the gash. Cut chips loose, don’t pry them out. Wedging may break the blade tip, split the wood, or cause dents or bruises on adjacent edges used as fulcrum.

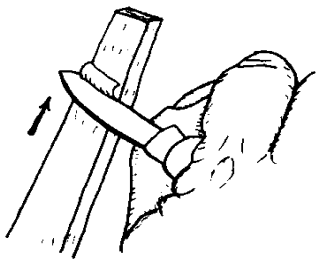
In cutting a slot or V-groove, it is advisable to make a center stop cut first, then work to it from each side. Cut with the grain if at all possible. Cutting at an angle into the grain causes splits. Cutting across grain is hard, slow, and more likely to error (because of increasing pressure).

Therefore, make across grain cuts before adjacent with grain ones, to avoid splitting and over-runs.

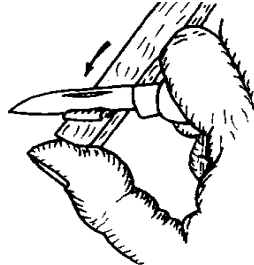
A pointed blade can be used to drill a hole by

rotating it, but it tends to tear across-grain edges and there is danger of breaking the knife tip.

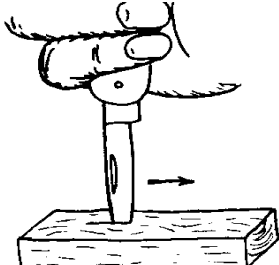
If you cut accurately and cleanly and remove splinters and feather as you should, sanding blurs sharp outlines and “smears” the surface. Use worn sandpaper if you must sand.



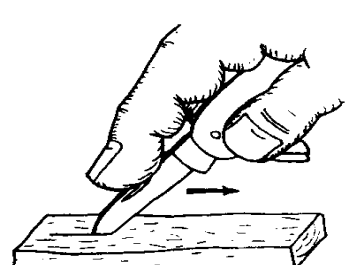
POINT CUT- No control, hence damage. Force from arm muscle.



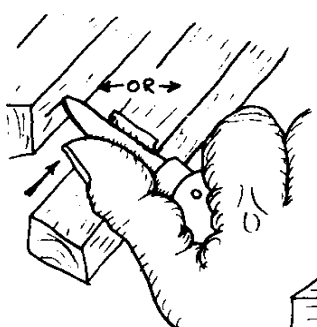
PARING CUT- Good cut control - watch thumb! Force from hand clenching.



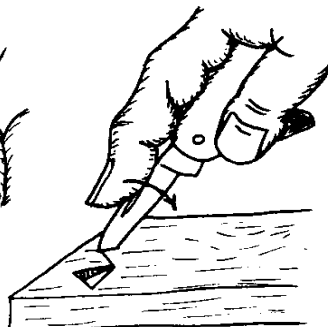
DRAW CUT- Poor control - tends to follow grain. Arm force.



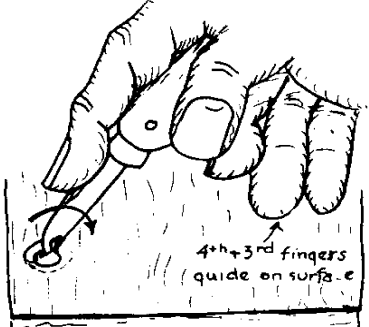
SLICE CUT- Close control - may tend to follow grain. Arm force.



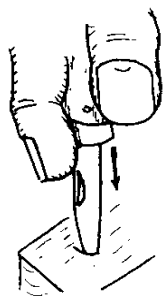
THUMB PUSH- Short cuts, great pressure; close control. Arm pressure.



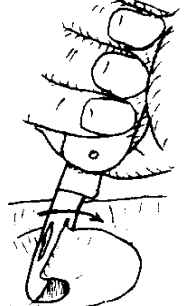
ROCKING CUT- Chip carving - good across grain. Arm force.



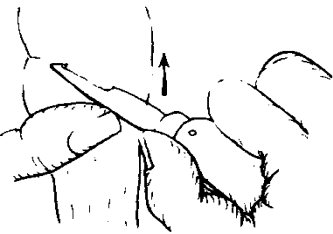
CHAMFER or CURL CUT- Close control - must cut with grain. Arm rotation and force.



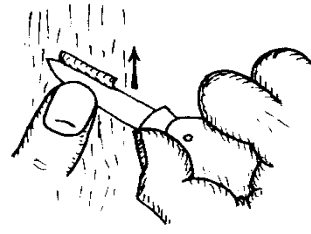
STAB or DRILL CUT- Series of hand pushes. Danger of blade closing.



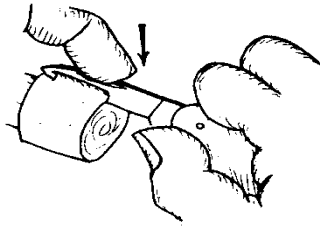
HOLLOW CUT- Tip cuts concave. Watch grain!



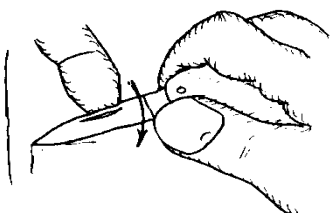
LEFT THUMB ASSIST- Close control - more force; short precis cuts or shaving.



LEFT INDEX-FINGER ASSIST- Shaving cuts. Work must be clamped or held by left hand.



LEFT-INDEX DRAW CUT- Shaving and detailing. Gives close control with more force.



GUILLOTINE CUT- Adds force at blade tip. Left index finger or thumb push.