

BETSY PALMER ELDRIDGE
24 Castle Frank Crescent
Toronto, Ontario M4W 3A3
T (416) 967-4589 F (416) 967-3992
bpeldridge@aol.com

FRIDAY NIGHT FORUM
PORTLAND OREGON '05
SHARPENING TIPS

I. LEADING STROKES VS. TRAILING STROKES:

When sharpening the beveled side of a knife on a stone, it is very important to understand the difference between a leading stroke and a trailing stroke.

A leading stroke: The cutting edge of the knife leads the body of the knife. It is often referred to as sharpening “into the stone” and is the stroke usually made when the knife is being pushed away. A leading stroke is used for sharpening and leaves a clean edge without a burr.

A trailing stroke: The cutting edge of the knife trails the body of the knife. It is often referred to as sharpening “away from the stone” and is the stroke usually made when the knife is being pulled or drawn back. A trailing stroke is used for honing and often leaves a small burr.

After sharpening the knife with a leading stroke to establish an edge, hone the knife with a trailing stroke frequently – every stroke or two – on the paring surface to keep the edge free of fragments and the burr turned down. For paring soft material like leather, a small burr acts like a serrated knife and is quite effective.

II. STRAIGHT CUTS VS. SKEW CUTS:

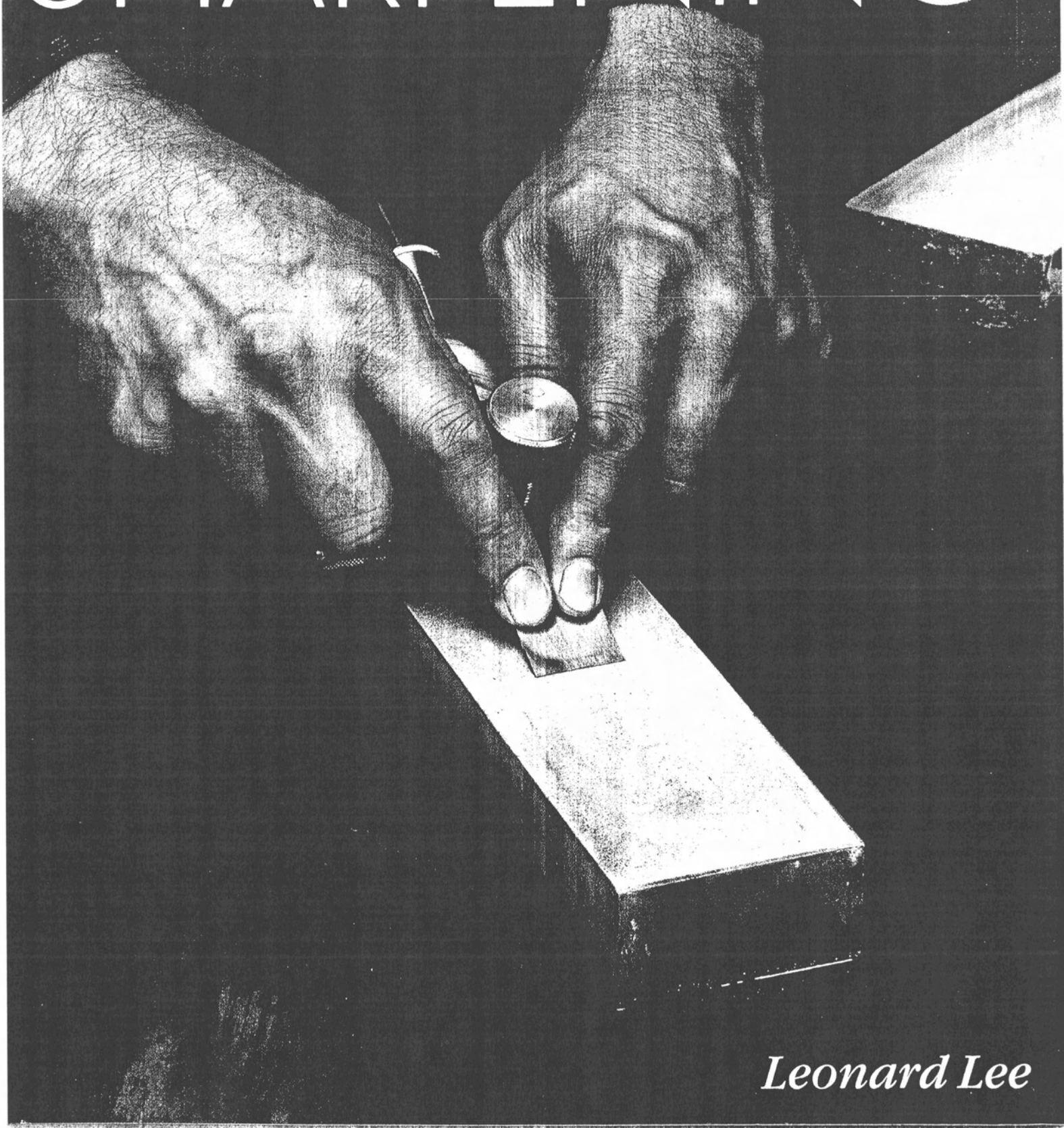
Some excellent diagrams in Leonard Lee’s book on “Sharpening” (The Taunton Press, Newtown, CT, 1995) are very helpful in understanding the importance of a skew cut as opposed to a straight cut. A skew cut, where the cutting edge is at a 45 degree angle to the cutting path, effectively reduces the included angle, which in turn reduces the stress field encountered in cutting. The skew cut principle applies in paring leather whether an English, French, or German shape of knife is being used. It also applies regardless of the paring method, i.e. whether a parallel or a perpendicular position is being employed.

The two golden rules for paring leather are:

1. Keep the angle of elevation as low as possible. The lower the angle of elevation off of the surface, the easier it is to cut because the field of stress is less. This is one of the reasons that bookbinders’ spoke shaves are modified, and their paring knives are hollow ground.
2. Keep the angle of the cutting edge at a 45 degrees, or less, to the direction traveled. This skewing of the knife reduces the resistance and results in a smoother cut.

A FINE WOODWORKING BOOK

THE COMPLETE GUIDE TO SHARPENING



Leonard Lee

COVER PHOTOGRAPH: ROBERT MARSALA



The Taunton Press
Inspiration for hands-on living®

© 1995 by The Taunton Press, Inc.
All rights reserved.

10 9 8

Printed in the United States of America

ISBN 1-56158-067-8 hardcover
ISBN 1-56158-125-9 softcover

A FINE WOODWORKING Book

FINE WOODWORKING® is a trademark of The Taunton Press, Inc.,
registered in the U.S. Patent and Trademark Office.

The Taunton Press, 63 South Main Street, Box 5506,
Newtown, CT 06470-5506
e-mail: tp@taunton.com

Library of Congress Cataloging-in-Publication Data

Lee, Leonard.

The complete guide to sharpening / Leonard Lee.

p. cm.

"A Fine woodworking book"—T.p. verso.

Includes index.

ISBN 1-56158-067-8

1. Woodworking tools. 2. Sharpening of tools. I. Title.

TT186.L43 1994

94-37677

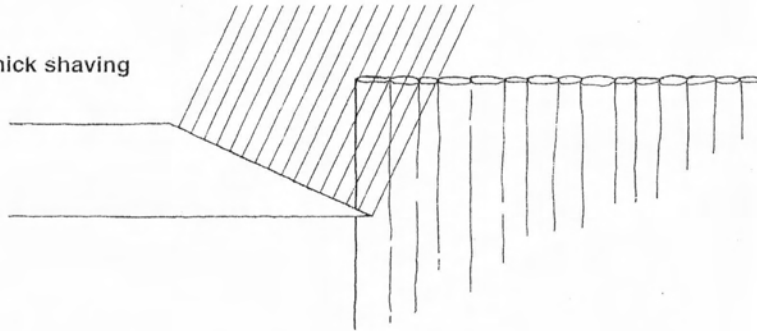
684'.08'028—dc20

CIP

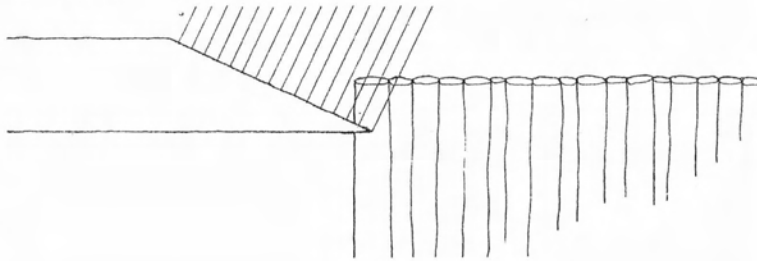
FIELD OF STRESS

Stress acts in line at 90° to surface of chisel.

Thick shaving

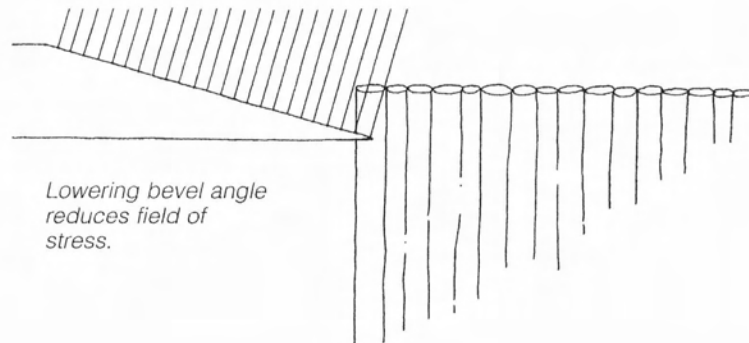


Thin shaving

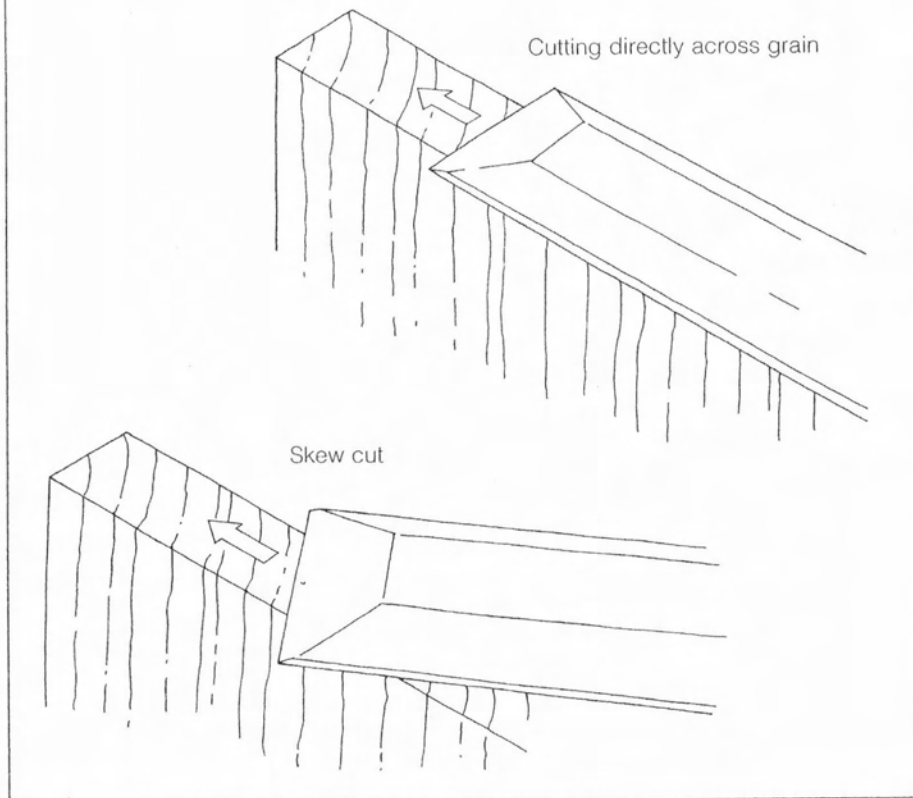


REDUCING INCLUDED ANGLE

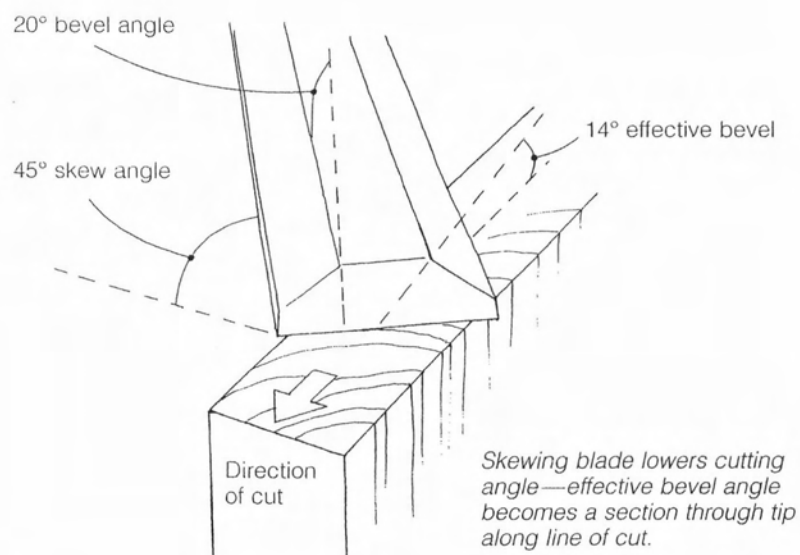
*Lowering bevel angle
reduces field of stress.*



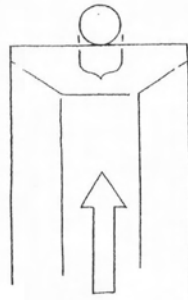
SKEWING THE TOOL



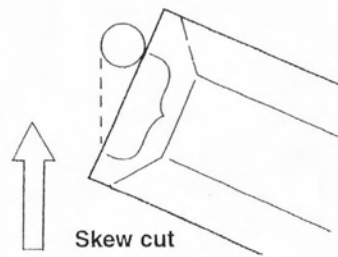
EFFECT OF SKEWING



STRAIGHT CUT VS. SKEW CUT



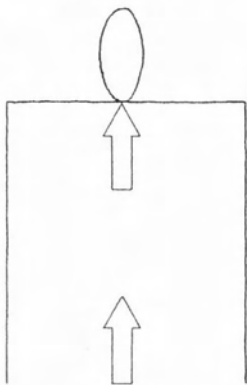
Straight cut



Skew cut

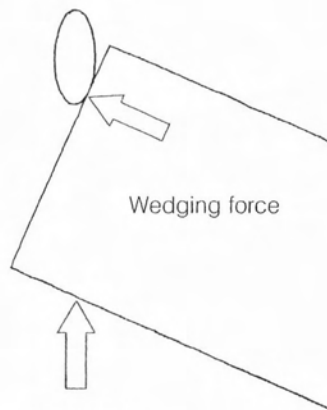
STRAIGHT CUT VS. SKEW CUT

Straight cut



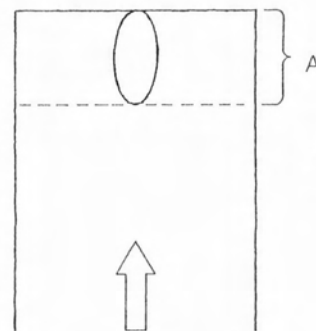
Wedging force/
Direction of cut

Skew cut



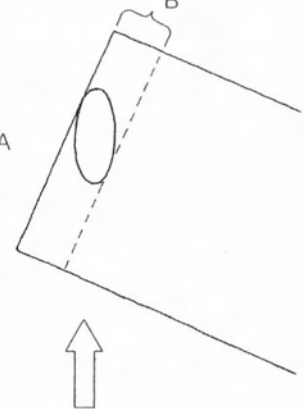
Direction
of cut

Straight cut



Direction
of cut

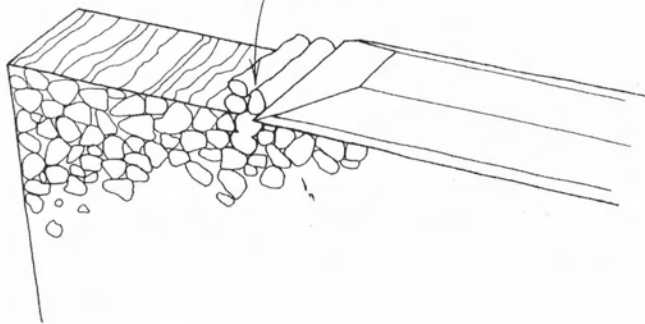
Skew cut



Direction
of cut

CROSS-GRAIN CUTTING

Fibers roll out of position instead of being cut.



Skewed blade reduces tendency of fibers to roll out.

