HOW TO GRIND
STANLEY PLANE IRONS
(THESE ALSO APPLY TO CHISELS)

Grinding straightens the edge and restores the bevel preparatory to sharpening by whetting on the oil stone. The grind stone should turn toward the plane iron. Use the guide as it assures a flat even bevel. Keep the plane iron cool to prevent burning, or softening the steel, by frequent dipping in water.

When to Grind a Plane Iron or a Chisel

- When the cutting edge is nicked.
- When the bevel has been worn down by much whetting.
- When the bevel has been rounded by careless whetting.

Avoid a bevel too long and thin; it is weak and will nick easily.
Avoid a bevel too short and thick; it will not enter the wood easily.

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EDUCATIONAL DEPARTMENT
CHART NO. 10

PRINTED IN USA
HOW TO WHET
STANLEY PLANE IRONS
(THIS ALSO APPLIES TO CHISELS)

WHET THE PLANE IRON ON THE OIL STONE TO PRODUCE THE REAL SHARP CUTTING EDGE.
HOLD THE PLANE IRON IN THE RIGHT HAND WITH THE LEFT HAND HELPING.
PLACE THE BEVEL ON THE STONE WITH THE BACK EDGE SLIGHTLY RAISED.
MOVE THE PLANE IRON BACK AND FORTH.

TO KEEP THE BEVEL STRAIGHT
BE SURE THE HANDS MOVE PARALLEL TO THE STONE SO THAT THE ANGLE BETWEEN THE PLANE IRON AND THE STONE WILL STAY THE SAME THROUGHOUT THE STROKE.
USE ENOUGH OIL TO KEEP THE SURFACE OF THE STONE MOIST. IT KEEPS THE STONE SHARP BY PREVENTING PARTICLES OF STEEL FILLING THE PORES OF THE STONE.
TRY TO WEAR THE STONE EVENLY.

PLANE MARKS WILL SHOW LESS ON A FINISHED SURFACE IF THE CORNERS OF THE PLANE IRON ARE SLIGHTLY ROUNDED.

ROCKING THE PLANE IRON PRODUCES A ROUND BEVEL THAT WILL NOT CUT WELL.
A BEVEL ON THE FLAT SIDE OF THE PLANE IRON PREVENTS THE CAP IRON FITTING TIGHT, SHAVINGS WILL CLOG THE PLANE.
FINISH WITH A FEW STROKES ON A LEATHER STROP TO PRODUCE A KEENER EDGE.

TO GET THE RIGHT GRINDING ANGLE ABOUT 25° TO 30° MAKE THE BEVEL A LITTLE LONGER THAN TWICE THE THICKNESS OF THE PLANE IRON.

WHETTING ANGLE 30° TO 35°

REMOVE THE WIRE OR FEATHER EDGE BY TAKING A FEW STROKES WITH THE FLAT SIDE OF THE PLANE IRON HELD FLAT ON THE STONE AVOID THE SLIGHTEST BEVEL ON THIS SIDE.
IF A NICK OR A SHINY EDGE OF BLUNTNESS CAN BE SEEN, REPEAT BOTH PROCESSES OF WHETTING.

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EDUCATIONAL DEPARTMENT
CHART NO. 11
PRINTED IN U.S.A.
HOW TO ASSEMBLE THE
STANLEY DOUBLE PLANE IRON

1. Lay the Plane Iron Cap on the flat side of the Plane Iron, as shown, with the screw in the slot.
2. Draw the Plane Iron Cap back.
3. Turn it straight with the Plane Iron.

5. Hold the Plane Iron and the Plane Iron Cap firmly and tighten the screw to hold the two parts together.

Bevel

Slot for Lever Cap Screw

Cutting Edge

Slot for Y Adjustment

Slot for Lateral Adjustment

Plane Iron or Blade

Cap Iron Screw

The Plane Iron Cap breaks and curls the shaving, together with the toe of the Plane, it prevents the wood splitting ahead of the cutting edge, producing a smooth surface. The Plane Iron Cap also serves to stiffen the Plane Iron.

Poorly Fitted

Properly Fitted

Edge of Plane Iron Cap must fit tight to prevent shavings wedging under it, piling up and choking the Plane.

The Plane Iron Cap should extend 1/16" back of the cutting edge for general work. On cross-grained or curly wood it should be as near to the cutting edge as possible.
HOW TO SET THE STANLEY PLANE

1. To put the plane together lay the plane iron, bevel side down, on the frog. Be sure the roller on the lateral adjusting lever, the end of the "Y" adjusting lever and the head of the plane iron cap screw are correctly seated.

2. Slip the lever cap under the lever cap screw and press down the cam. If the plane iron is in the correct position the cam will easily snap in place. If the cam will not snap in place easily, slightly loosen the lever cap screw. If the plane iron is not firmly held when the cam is in place slightly tighten the lever cap screw.

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3. The plane iron is pushed out when the adjusting nut moves out toward the handle. The plane iron is drawn in when the adjusting nut moves in toward the frog.

4. To adjust for the evenness of the shaving sight along the bottom of the plane and move the lateral adjusting lever toward the right or the left.

KNOB, LEVER CAP AND PLANE IRON CAP REMOVED TO SHOW THE ACTION OF THE LATERAL ADJUSTING LEVER.

EDUCATIONAL DEPARTMENT
CHART NO. 13
BY R. O. REGER
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HOW TO USE THE STANLEY PLANE

To cut a smooth straight edge the plane is pushed with the grain, that is in the up hill direction of the fibres.
To keep the plane straight press down on the knob at the beginning of the stroke and on the handle at the end of the stroke.
Avoid dropping the plane as shown by the broken lines. It rounds the corners.

To start planing take an easy but firm position directly back of the work.

Hold the plane square with the work face of the work.

To obtain a smooth surface plane with the grain. If the grain is torn or rough after the first stroke reverse the work.
If the grain is cross or curly, sharpen the plane iron carefully, set the plane iron cap as near the cutting edge as possible and adjust the plane iron to take a very thin even shaving.

It is easier to plane a long edge straight with a long plane than with a short one. A long plane bridges the low parts and does not cut them until the high spots are removed.

At the end of the stroke the weight of the body should be carried easily on the left foot.

Plane end grain half way from each edge.

If the plane is pushed all the way the corners will break.

Educational Department
Chart No. 14
By R. O. Reder

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HOW TO ADJUST AND USE
THE STANLEY BLOCK PLANE

LEVER CAP SCREW  LEVER CAP  ADJUSTING SCREW
FINGER REST  PLANE IRON  BOTTOM
STANLEY PLANE No 118P

To adjust the plane iron vertically, for the thickness of the shavings, sight along the plane bottom and turn the adjusting screw forward to push the plane iron out, or turn it back to pull the plane iron in.

KEEP YOUR PLANE SHARP
See Stanley Charts No. C10 and No. C11 for grinding and whetting plane irons. The same applies to chisels.

The block plane has a single plane iron set at a lower angle than the plane iron of the smooth plane, enabling it to cut end grain better than other planes. Because of the low angle, the plane iron is set bevel up.

The block plane is used to plane small pieces and to plane the ends of mouldings, trim and siding.

The block plane is a tool used in one hand. This makes it easy to use when the work cannot be taken to a vise.

The block plane is the handiest tool for planing corners and chamfers on small pieces of wood.

The block plane is indispensable in shaping hulls and spars of model boats and the parts of model airplanes.

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CHART NO. 15
By R. E. Reeder

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