

Exercise 1.—Use of the Chisel.

Material.—A rough block of pine, about 2" square, and 8" long.

Work.—1. To cut one side of the block perfectly smooth and flat.

2. To cut an adjacent side smooth, flat, and at right angles with the first side.

Fasten the block lengthwise in the vise, so that about $1\frac{1}{2}$ " of it is above the bench-top.

Hold the **chisel** in the right hand, the cutting edge obliquely to the direction of the grain, and inclined from the block a sufficient amount to make a thin shaving (*a*, *b*, Fig. 1). The fingers of the left hand should rest on the face of the blade, and guide the cutting edge. If additional strength is required to force the chisel through the wood, grasp the blade in the left hand.

The surface is **pared** smooth with the chisel in the above position. To make the surface flat, turn the chisel on its face, as shown in Fig. 2, *a* and *b*; cut very thin shavings in those places where the wood is too high, and avoid cutting in the low places.

To test the surface, hold the try-square on various parts of the surface in the two positions, as shown in Fig. 3, *a* and *b*, and note the light passing under the square at the low places. Handle the try-square with the left hand. If its edge is pressed or rubbed against the wood, it will mark the high places. Look along the block from end to end, to see whether the surface is twisted or warped. Also pass the fingers lightly over the surface, to note its irregularities.

When smooth and flat, this surface of the block is called its **face**. Turn the block in the vise and fasten with its face outward. Pare the second side the same as the first, testing frequently for flatness. When nearly smooth and flat, remove the block and test the angle between the sides with the try-square, as shown in Fig. 4. Care must be taken to hold the try-square true to the face.

When the second side is finished, mark it and the face with a pencil, as shown in Fig. 4. The edge of the block, toward which the marks point, is the **face-edge**, from which all measures are made.

In using any sharp tool, care must be taken to avoid cutting the work-bench, the bench-stop, and particularly the hands. Always keep the hands behind the chisel-edge.

