

How to Carve Kento

Kento: Japanese registration. *Kagi*: "key," kento mark in right corner. *Hikitsuke*: "draw stop," straight kento mark toward left side. *Kento Nomi*: special chisel for carving kento marks. *Hira To*: "straight chisel," can be used in place of a *Kento Nomi*.

Kento is a simple way to register multiple blocks so that individual parts of the print, printed from each block, will line up exactly with every other part.

This is done by carving two marks, the *kagi*, which looks like a backwards "L," and the *hikitsuke*, which is a straight line carved about 1½" (40mm) in from the opposite side of the block. These marks are always carved along the longest dimension of the block as shown in Figure 1. (The dotted line is the paper, the solid outside line is the block, and the solid inner line is the image that will be printed.)

The *hikitsuke* is a single 15mm long mark that is at least ¼" (6mm) up from the bottom of the block. The *kagi* is made with two marks. The first mark is in line with the *hikitsuke*, about ¼" (6mm) up from the bottom edge of the block. The second mark is perpendicular to that mark, and at least ¼" (6mm) in from the right edge of the block. Draw these marks onto the block with a pencil and ruler.

Cut the kento marks into the block using either a *kento nomi* or a 15mm *hira to*. The *kento nomi* is held by the handle in one hand, with the flat side of the blade closest to the carver. Support the base of the blade with the thumb of the opposite hand. Hold the *kento nomi* exactly perpendicular to the block, with its edge touching just below the line to be cut. (Figure 2).

Holding the *kento nomi* in a clenched fist, press the *kento nomi* down to make a groove about 1/16" (2mm) deep into the wood. If necessary, gently rock the *kento nomi* from side-to-side to get deep enough.

Tip: Overlapping the two marks of the *kagi* where they intersect by about 1/32" (1mm) creates a sharp, clean right-angle for the paper to slide into.

These marks can be as far in from the edge of the block as you like so long as your image still fits on the block; the dimensions given here are roughly the minimum width that will leave enough wood so that the kento are sturdy.

Turn the block 180° and place it in a bench hook. Carve a groove with a 4.5 or 6.0mm u-gauge right at each end of the *hikitsuke* and the right end of the *kagi* starting at about ¼" (6mm) above the kento, then going right off the edge of the block (Figure 3). Turn the block 90° to carve the fourth and final groove on the *kagi*. Turn the block back so it is again against the bench hook as shown in Figure 3.

Turn the *kento nomi* so the bevel is down against the wood and clear a slope toward the kento marks. The clearing must be very shallow where the slope meets the mark, just two to three times the thickness of the printing paper; and it must produce a flat, smooth, sloping surface so the printing paper slides smoothly and settles into the kento effortlessly.

Start with the *hikitsuke* (Figure 4a). Place the *kento nomi* at the top between the two grooves and angle the *kento nomi* so it slopes down toward the kento mark.

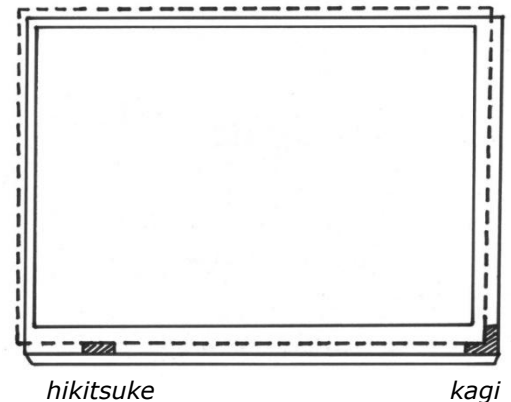


Figure 1

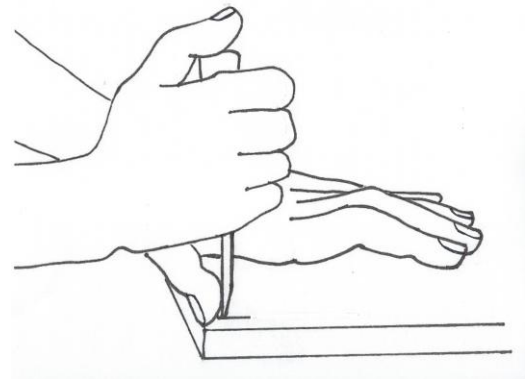


Figure 2

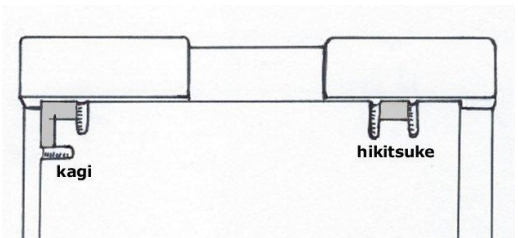


Figure 3

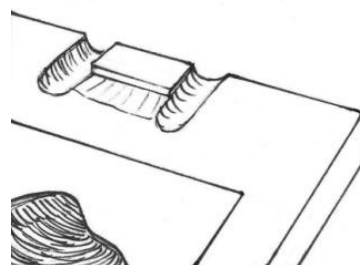


Figure 4a

Carve forward until the kento nomi gently butts into the hikitsuke. Do not lift the tip of the tool at the end of the cut; the slope continues straight down.

Try to make this slope with just one cut so the ramp will be smooth.

In making the kagi (Figure 4b), the cleared part must slope very slightly from both directions toward the right-angled corner. Start with the kento nomi at the groove, very slightly tilted toward the mark on the left. Create a ramp sloping down toward the horizontal kento mark. Turn the block clockwise 90°. Place the kento nomi at the groove, very slightly tilted toward the mark on the right. Create a ramp sloping down toward the other kento mark and overlapping the first cut.

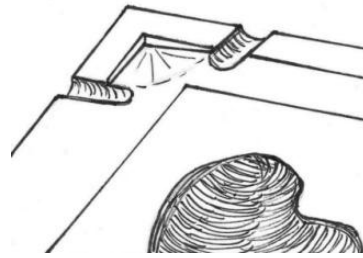


Figure 4b

Try to make these two slopes with just one cut each so the ramp will be smooth.

Once the kento are carved into each block, place your final drawing into these marks face down, tape in place, and sandwich a piece of carbon paper between the drawing and the block. Trace onto the block only the portion of the drawing that will be carved and printed from that block.

Repeat until each part of the drawing has been transferred to a block.

How to Place Paper into Kento Accurately

Placing the paper into the kento and allowing it to drop onto the block accurately is essential for kento registration to work well.

Hold the sides of the paper between the first and middle fingers of both hands, leaving the thumbs free. The middle finger is slightly ahead of the first finger so the paper has a slight bow and the fingers are about 2" to 2.5" (4.5 to 5cm) above the bottom edge of the paper.

Slide the right corner of the paper into the kagi and lock it down with the right thumb (Figure 5a). Now slide the paper into the hikitsuke and lock it down with the left thumb.

Keep the thumbs pressed down firmly on the paper and pull the fingers away, allowing the paper to drop onto the block (Figure 5b).

Practice this move several times before starting to print the first time. Placing and dropping the paper should feel easy and natural before you begin to print.

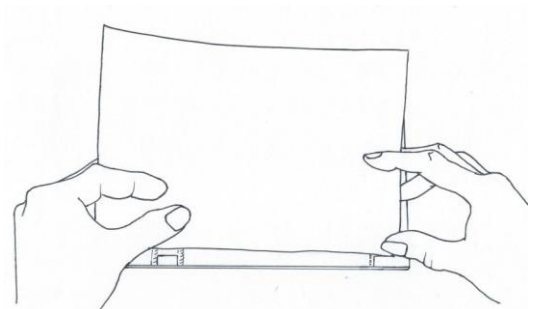


Figure 5a

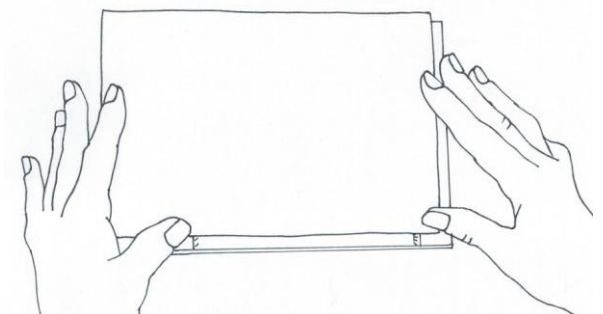


Figure 5b



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