

SETTING *and* SHARPENING or "FITTING"  
CROSS-CUT SAWS  
WITH THE  
**Disston Universal Cross-Cut Saw Tool.**

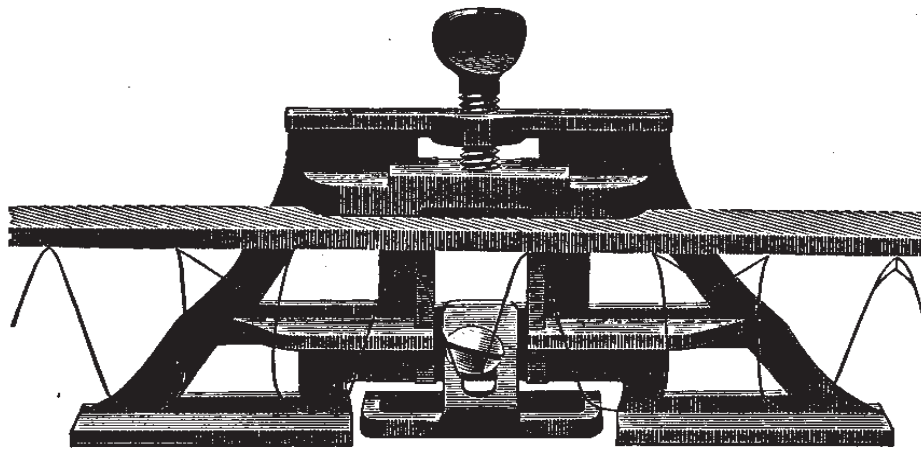


FIG. 1—JOINTER.

8" Mill File edgewise in the frame and secure it by screws at each end. Pass the tool lightly over the teeth until file touches the shortest cutting tooth. See Fig. 1.

**Second:**—Place the gauge over the raker teeth as shown in Fig. 2, and file them down to the required length. Care should be taken to have the rakers shorter than the cutting teeth. If the rakers are too long they will not allow the cutting teeth to come in

proper contact with the work, and the saw will not cut freely. For the very hardest and driest woods the rakers should be one hundredth part of an inch shorter than the cutting teeth. For hard green wood the

which includes a Jointer, Raker Tooth Gauge, Setting Block or Anvil, Set Gauge and Side Dresser.

**To properly fit up a Cross-Cut Saw it is necessary**

**First:**—That the teeth be uniform in length. To accomplish this, place an

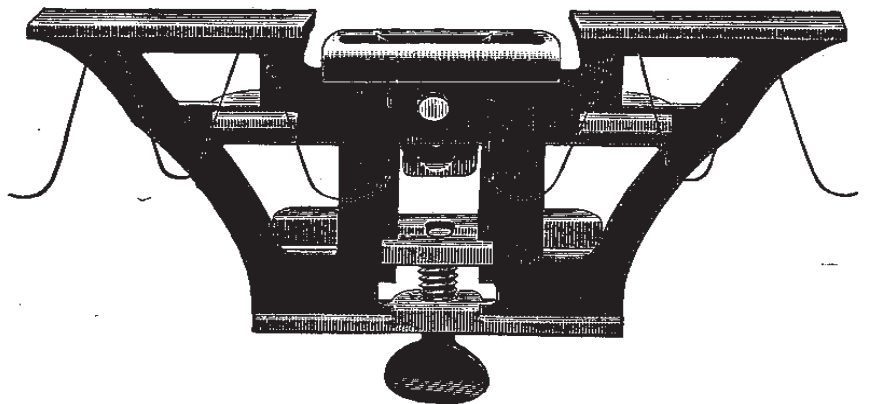


FIG. 2—RAKER TOOTH GAUGE.

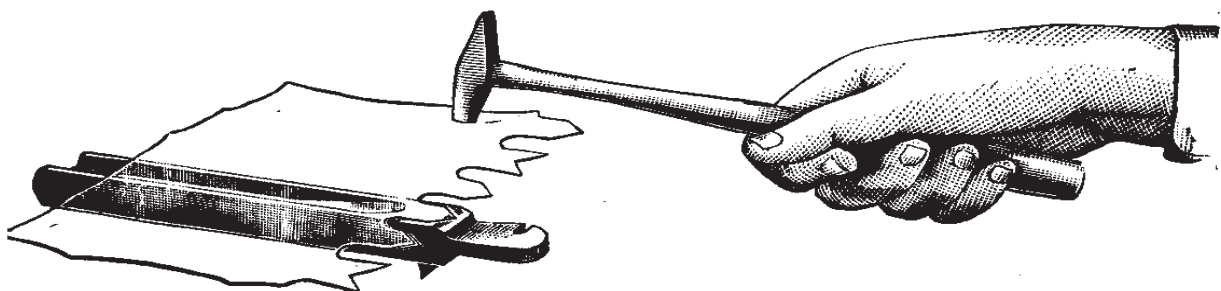


FIG. 3—SETTING BLOCK.

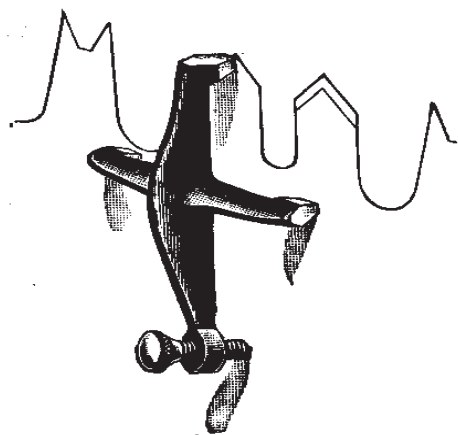


FIG. 4—SET GAUGE.

rakers should be one sixty-fourth of an inch shorter than the cutting teeth and graduated from one sixty-fourth of an inch to one thirty-second of an inch, according to conditions and timber, when cutting softer wood.

**Third:**—When filing, bring each tooth to a keen cutting edge, taking care not to reduce the length of tooth any more than necessary to remove the marks of the Jointing.

The amount of Bevel to the teeth should be determined by the class of timber to be cut. Hard wood requires less Bevel than soft wood. Figures A and B illustrate styles of fitting which we strongly recommend, particularly for very hard or dry stock. These styles of fitting produce a long knife-like edge, which, through a shearing cut, readily severs the fibre of the hardest wood.

**Fourth:**—If a Saw requires setting, lay the Block or Anvil, Fig. 3, on some convenient flat, solid surface and hold the Saw so that the point of tooth projects over the beveled edge of anvil about one quarter of an inch. Give two or three strokes with a light hammer, striking the tooth always about one quarter of an inch from the point. It is very important that the Set should be perfectly

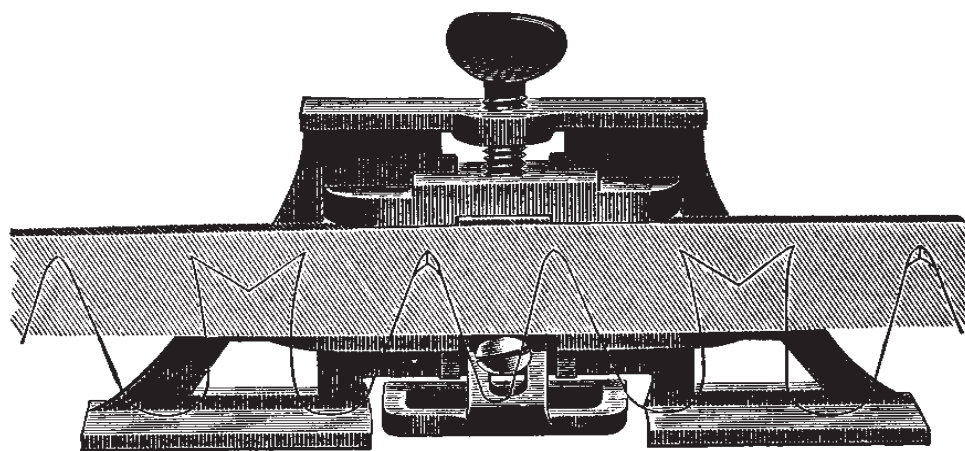
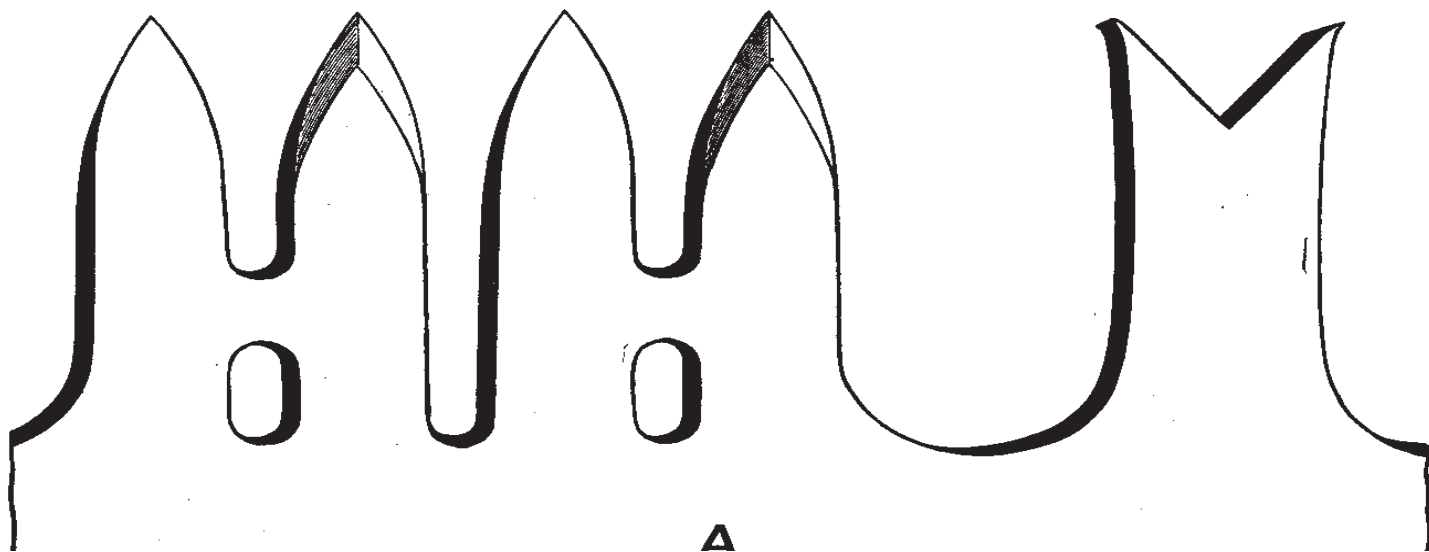


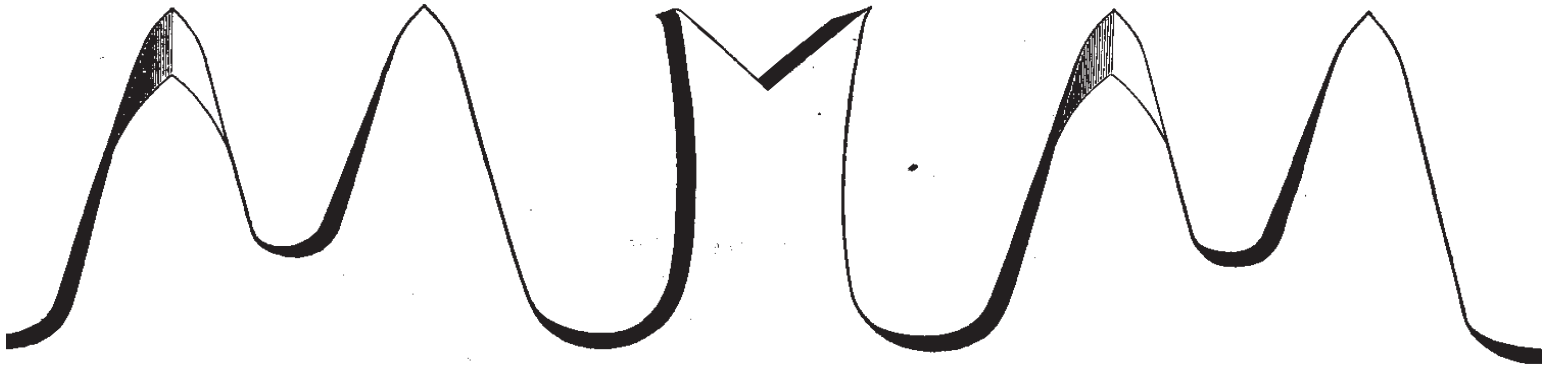
FIG. 5—SIDE DRESSER.



uniform, or exactly the same amount of Set to each tooth. This can be regulated by the use of Set Gauge shown in Fig. 4. The amount of Set required is largely determined by the kind of timber being cut and the manner in which the saw is ground.

Our Extra Thin Back Saws, when properly filed, do not require more than one-hundredth of an inch Set to each side of the saw in general sawing and can be run with less Set in hard firm grained timber.

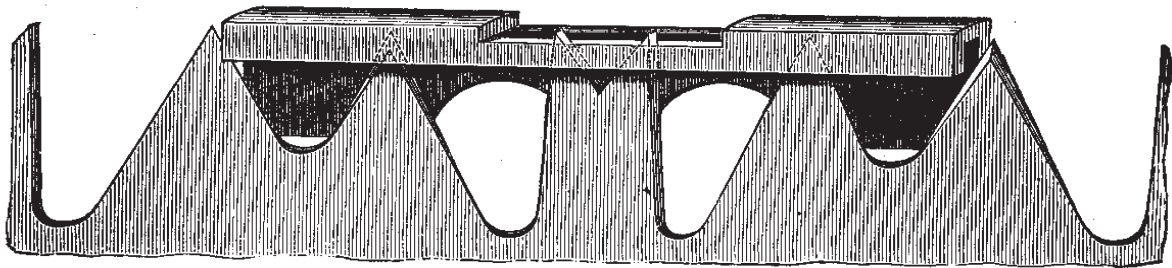
Use the Side Dresser, Fig. 5, for removing feather-edge on sides of teeth by passing the tool lightly over each side of the saw, *taking care not to file any flat places on the sides of the points of teeth.* Note particularly how the saw is filed when new, and endeavor to keep it as near that shape as possible.



B

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### GAUGE for REGULATING CLEANER or RAKER TEETH.



Showing the Gauge in position for Filing the cleaner-tooth.

The cleaning teeth of all saws should be somewhat shorter than the cutting teeth, and although shortened, should be of uniform length throughout.

The inner edge of the gauge rests on the points of the cutting teeth, the cleaner tooth projecting through the opening in the centre of gauge. File the projecting point until arrested by the edge of the gauge, which is made of hardened steel. Thus tooth after tooth can be rapidly and correctly reduced to an even length by any unskilled operator.