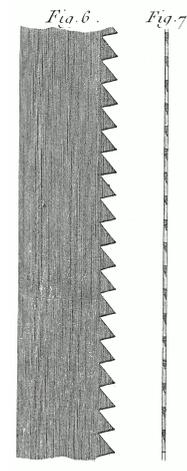


up the wood excessively with an unnecessarily wide kerf, and one takes great care that the teeth be perfectly straight on the horizontal, and that their teeth be also perfectly equal in height, so that they grab all equally, and that they do not chatter, resulting in uneven thickness of the wood, which is also to be feared, which ruins so many sheets of veneer. The teeth of these saws should be spaced equally, about 5 to 6 lines from one tooth to the next one at least, and should be positioned in such a way that the bottom [what we now call the tip] of each tooth is level with one another, because being so arranged, they are less subject to become dull, which would happen unfailingly if they were made ordinarily, as is seen that almost all wood from india is hard, and consequently causes more resistance to the teeth of the saw. See Figs. 6 and 7, which represent one part of the saw blade viewed from the front and side, half-size.

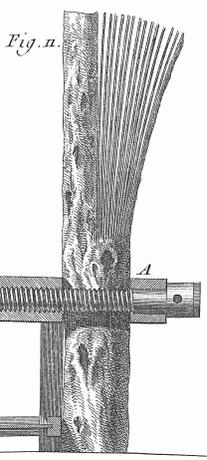


The standing saw vise, represented in Fig. 11, is one type of small bench, about 3 to 3.5 feet long, by 2 feet high, at the base of which one puts the vise, which serves to hold in place the piece that one wishes to saw.

Page 801

Plate 278

in order for this vise to be solid [a stout twin-screw face vise], it is good that the brace [the jaw] A, Fig. 11, have about 6 thumbs [inches] thickness, as well as the top of the bench, in which the screws enter, which to be good, should have at least 2.5 to 3 thumbs [inches] in thickness, and the threads be long enough so that when there is a piece of wood 8 to 10 thumbs [inches] thickness placed in the vise, there remains at least enough length of the screw in the bench, as observed in this figure. As this bench is very short, and is subject to vibration by the movement of the saw, one loads stones on the bottom shelf to make it more solid; but I believe it would be better to make the legs of the bench long enough to be anchored to the floor of the shop, then one makes a hole in front of the bench to set in the



piece of wood to be sawn in order to not extend upwards more than 3 feet above the top of the vise, locating it thus both for the comfort of the sawyers and for maximizing the yield of the piece being sawn. Not all the standing saw vises are part of an overall bench, such as the one represented here, in Figs. 10 and 11; this is why ordinary vises attached to a little bench are less solid than making them as I propose here.

When one wishes to saw with the vise, one begins by placing the piece to saw in the vise, of which the screws tighten with an iron lever, that one removes after being worked, so that it is not in the way; then, with an ordinary saw, one begins to mark all the lines to be sawn on the end of the workpiece, just up to 2 to 3 lines deep [3/16"], then one uses the frame saw, Fig.

