
The Workshop and Tools

THE IDEAL LAYOUT OF THE WORKSHOP

The Workbench

TOOLS: DEVELOPMENT AND USE

Rules for Tools

Shop Safety

Historical Development

How a Tool Cuts

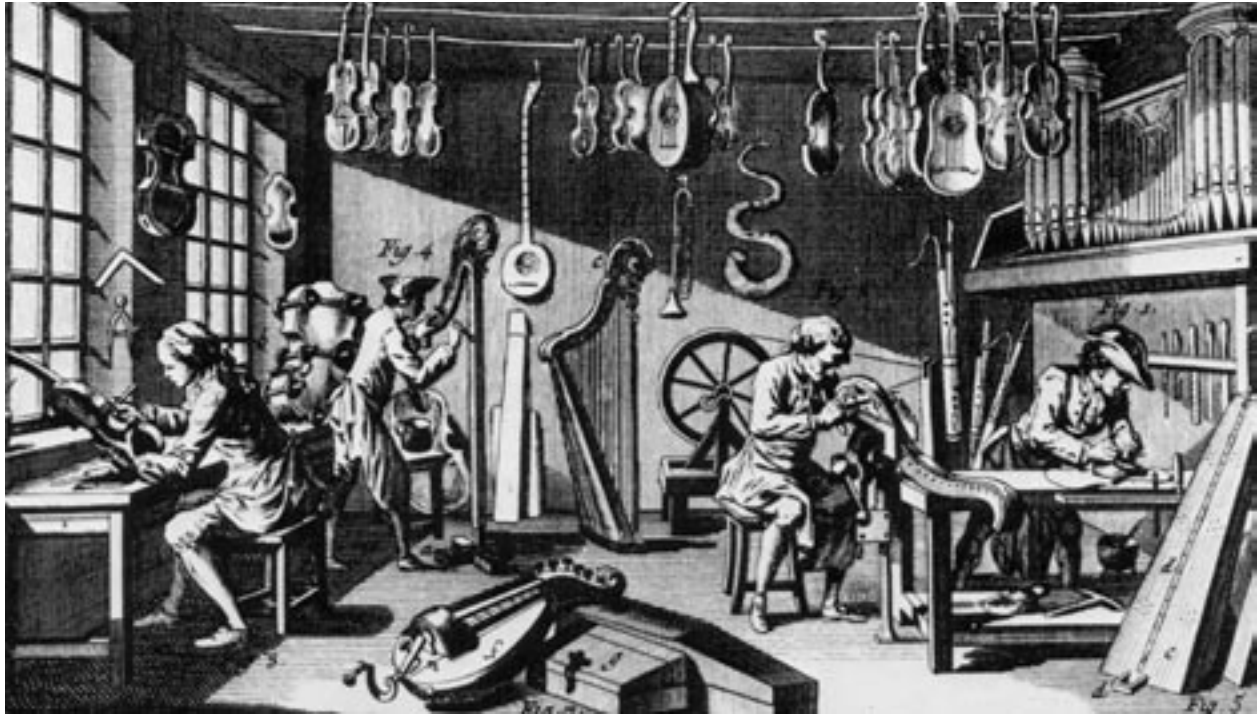
Steel

Machine Tools

Development of Power Tools

TOOLS: ALPHABETICAL LISTING AND DESCRIPTION

Additional Useful Tools



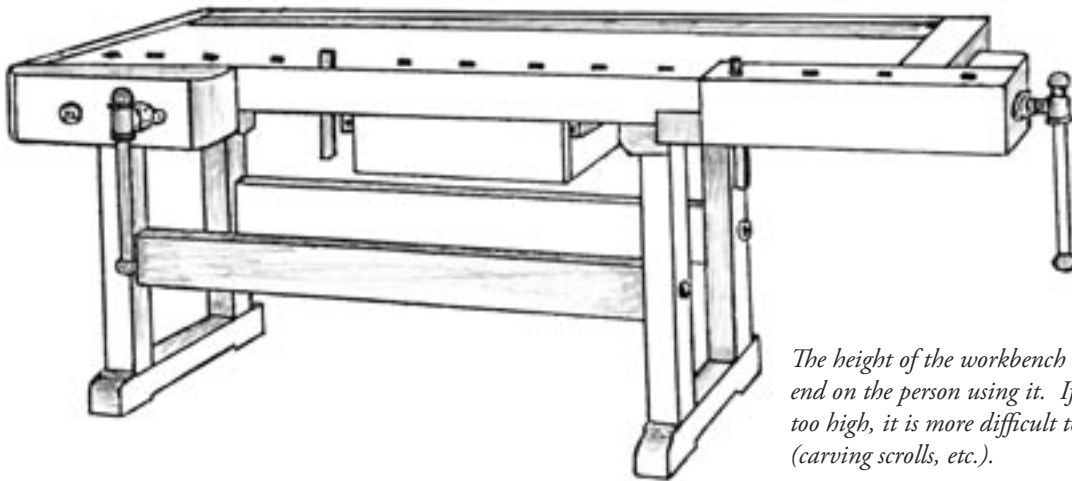
*An imaginary instrument maker's shop.
From Diderot and D'Akembert's Encyclopédie, Paris 1759*

THE IDEAL LAYOUT OF THE WORKSHOP

The focus of the workshop is the bench, for it is here that most of the luthier's hours will be spent. The ideal placement is against the wall beneath a north-facing window or windows. If this is not possible, the distance between the bench and the window should be as small as possible. Wider distances cause longer shadows on the bench and require wider benches.

Two basic types of benches are used in violin making, free-standing and attached.

A cabinetmaker's bench, as opposed to the workbench, should be freely accessible from all sides. A cabinetmaker's bench is made of red beech with 2 vises and a tool-rest in the back.



The height of the workbench depends in the end on the person using it. If the bench is too high, it is more difficult to control tools (carving scrolls, etc.).

Another heavy free-standing bench is a carver's bench, also made of red beech, but having 1 or 2 vises and a full plate without a tool-rest (not illustrated).

A workbench is usually attached to the wall, with a surface of hard-or softwood, and with a screwed on hardwood edge which easily can be replaced after being worn out. The bench should have a foot rest. If long and well-seasoned planks are not available, the plate can be made of shorter pieces, butt jointed with disks. The plate can be made to any desired length, and is not dependent on available materials.



Thickness of plate 30mm
Hardwood edge 40 x 30mm