

(2.) MANCHESTER SCHOOL BOARD: SYLLABUS OF WORK, ETC.—*continued.*WOOD-WORK, DRAWING, ETC.—*continued.*

| Work Period. | No. | Model or Exercise. | Finished Dimensions. | Material. | No. | Drawing. | Theory of Tools and Materials. |
|-------------------------------|-----|------------------------------|---|---------------------------------|-----|--|---|
| Second-year Scholars. | | | | | | | |
| First Quarter's Work | 1 | Mortise-joint .. | $4\frac{1}{2}'' \times 1\frac{1}{8}'' \times 1\frac{3}{8}''$.. | Yellow-pine | 1 | Orthographic and isometric projections | Advanced tool positions, boring-bit, spokeshave, gouge, hammer, and bow-saw. |
| | 2 | Desk-tray .. | $10'' \times \frac{3}{4}'' \times 2\frac{1}{2}''$.. | Satin-walnut | 2 | Working drawing .. | |
| | 3 | Halved and dove-tailed cross | $5'' \times \frac{7}{8}'' \times 1\frac{1}{2}''$.. | Scotch fir .. | 3 | Orthographic and isometric projections | |
| Second Quarter's Work | 4 | Oblique sawing and inlay | $10'' \times \frac{7}{8}'' \times 1\frac{5}{8}''$.. | Spruce and satin-walnut | 4 | Plan, elevation, and section | Nails and screws; hard woods, varieties and uses; sharpening of saws and other tools. |
| | 5 | Dovetail-joint at 60° | $4\frac{1}{2}'' \times 1\frac{1}{8}'' \times 1\frac{3}{8}''$.. | Yellow-pine | 5 | Orthographic and isometric projections | |
| | 6* | Pen-tray and ink-stand | $10'' \times 2\frac{1}{2}'' \times 5'' \times \frac{3}{4}''$ | Satin-walnut | 6 | Working drawing .. | |
| Third Quarter's Work | 7 | Bridle and mortise-joint | $4\frac{1}{2}'' \times 1\frac{1}{8}'' \times 1\frac{3}{8}''$.. | " | 7 | Orthographic and isometric projections | Glue. The beech, oak, ash, mahogany, and sycamore. |
| | 8 | Teapot-stand .. | $6'' \times 6'' \times \frac{1}{2}''$.. | Basswood and walnut | 8 | Working drawing .. | |
| | 9 | Housing and grooving | $5'' \times 2\frac{1}{4}'' \times \frac{3}{4}''$.. | Yellow-pine | 9 | Orthographic and isometric projections | |
| Previous to Govt. Examination | 10 | "Home pets" feeding-trough | $12'' \times 2\frac{1}{4}'' \times \frac{1}{2}'' \times 4''$ | Scotch fir .. | 10 | Working drawing .. | Recapitulation previous to Government examination. |
| | 11 | Simple end dovetail | $4\frac{1}{2}'' \times 1'' \times 1\frac{3}{8}''$.. | Satin-walnut | 11 | Orthographic and isometric projections | |
| | 12 | Fern-basket .. | $8'' \times 8'' \times 4'' \times \frac{1}{2}''$ sq. | Basswood .. | 12 | Working drawing .. | |
| Third-year Scholars. | | | | | | | |
| | 1 | Simple 3-pin dovetail | $4\frac{1}{2}'' \times 2\frac{3}{4}'' \times \frac{5}{8}''$.. | Yellow-pine | 1 | Isometric, joint apart | Preservation of hard and soft woods, chief methods in use. |
| | 2 | Knife-box .. | $12'' \times 8'' \times 2\frac{1}{4}'' \times \frac{3}{8}''$ | Scotch fir .. | 2 | Working drawing .. | |
| | 3 | Tenoned and rabbeted frame | $8'' \times 6'' \times \frac{5}{8}'' \times 1\frac{1}{2}''$ | Yellow-pine | 3 | Isometric, joint apart | |
| | 4 | Bow-saw exercise | $12'' \times 3'' \times \frac{5}{8}''$.. | " | 4 | Working drawing .. | Chief natural timber-destroyers. |
| | 5 | Wall-bracket .. | $12'' \times 6'' \times \frac{5}{8}''$.. | " | 5 | Isometric drawing | |
| | 6 | Stop-dovetailing | $4\frac{1}{2}'' \times 2\frac{3}{4}'' \times \frac{5}{8}''$.. | Yellow-pine and walnut | 6 | Isometric, joint apart | |
| | 7 | Edge-jointing .. | $12'' \times \frac{3}{4}'' \times \frac{1}{4}''$.. | Any white wood and satin-waln't | 7 | Working drawings | |
| | 8 | Table-mat .. | $12'' \times 7'' \times \frac{1}{4}''$.. | Ditto .. | 8 | | |
| | 9* | Dovetailed box.. | $12'' \times 7'' \times 4'' \times \frac{1}{2}''$ | Scotch fir .. | 9 | Isometric, with lid off | |
| | 10* | Shallow tray .. | $11'' \times 6'' \times \frac{7}{8}'' \times \frac{1}{4}''$ | Satin-walnut | 10 | Isometric and joint details | Working drawing .. |
| | 11* | Inlaid card-tray | $6'' \times 6'' \times \frac{1}{2}'' \times \frac{1}{4}''$ | Satin-walnut and sycamore | 11 | | |

NOTE.—Exercises or models marked * are optional, all others must be taken in numerical order.

(3.) BIRMINGHAM SCHOOL BOARD: SYLLABUS OF WORK IN MANUAL INSTRUCTION.

In the drawing, care must be taken to follow the usual methods adopted; also in getting the boys to see the object as represented from the different views they draw. Models for this purpose should be shown to the class when possible. Occasional lessons, giving hints on the best way of doing any of the exercises, will be given by the director if he is desired to do so. The chief points of weakness in the past have been: First, not sufficient exercise with the black scales; second, wrong methods of construction, and carelessness in making tangent circles and lines; third, wrong projection. Properly projected, accurately drawn to scale, and carefully dimensioned drawings are what is wanted; but correct methods, and skilful handling of the tools in obtaining them, are as essential as accurate and neat work.

STANDARD V. (WOOD-WORK).

First Quarter.

Practical Work.—Truing-up a strip of wood 10 in. long to a rectangular section of given dimensions: First, face to be planed to the straight-edge, and winding-strips; second, face to be planed to the straight-edge and square; third, face to be planed to the marking-gauge and square; fourth, face to be planed to the rule-marking gauge and straight-edge. The right order in which these faces are planed, and proper face-marks put on the first two faces, is to be strictly observed.

Knowledge of Tools.—Straight-edge, winding-strips, square, and marking-gauge.

Woods.—Oak, beech, sycamore.

Second Quarter.

Practical Work.—Truing-up a strip of wood having a transverse section of an octagon, circle, hexagon, and triangle, &c.

Tools.—Bevel, jack-, and smoothing-planes, hammer, compasses, and marking-point.

Woods.—Ash, mahogany, walnut, teak.

Third Quarter.

Practical Work.—Marking out to rule and sawing off with tenon-, crosscut-, and rip-saws; also use of chalk-line.

Tools.—Tenon-, crosscut-, and rip-saws, bench-hook, and chalk-line.

Woods.—Pitch-pine, willow, and cedar.