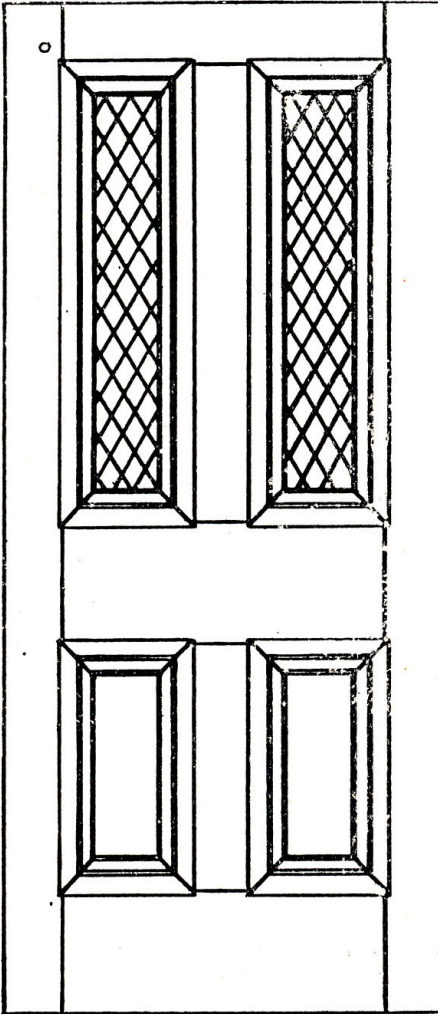
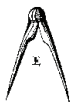


DOORMAKING AND WINDOW-MAKING

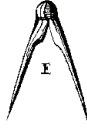


DOORMAKING
AND
WINDOW-MAKING
FOR CARPENTERS & JOINERS

FULLY ILLUSTRATED, WITH DIAGRAMS
AND WORKING DRAWINGS



LOST ART PRESS : FORT MITCHELL



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Introduction

The story of how this book has come to be republished is a tale that goes back more than 100 years.

At the end of World War I, one of the lucky survivors of the trenches came home to England and started a new career as a carpenter and joiner. He was my grandfather, and his name was Cecil Incles.

Sometime during his apprenticeship, he managed to purchase a tool chest – complete with tools – that had belonged to a joiner by the name of G. Shelton. To date I have not been able to find any clues as to who Mr. Shelton was, but by dating the tools in his chest, it is reasonably safe to assume he assembled them sometime around the end of the 19th century. Judging by the types of tools in his chest it is obvious that he was a joiner, and amongst other things, he would have spent a lot of his time making doors and windows.

Lying in the bottom of the chest were two well-worn little booklets on door and window-making. They date from around 1910, so I think it is safe to assume they were first purchased by Mr. Shelton. I'm sure he found them helpful, as I presume my grandfather did after him.

On completion of his apprenticeship, my grandfather moved back to his birthplace and started work for a small building firm in a nearby market town. For the next 50 years, he worked as a joiner for the same company right up to his retirement. After his death in 1976, my father decided to hang on to my grandfa-



ther's old tool chest, along with its contents, a decision that I am forever grateful for.

Two years after my grandfather's death, I left school at age 16 with no clear idea of what I was going to do with my life. As luck would have it, the old building firm that my grandfather had worked for was looking for an apprentice to train in its joiners' shop. So with hardly any woodworking experience at all, I found myself working under the watchful eye of "old Arthur." Coincidentally, Arthur had been one of my grandfather's apprentices. My father had no great interest in woodwork, so he was happy to pass the tool chest and its contents to myself to use in my new career.

It is no exaggeration to say that this tool chest, and more importantly its contents, changed my life. Most of the tools in the chest were of no use in a modern working environment, but I became fascinated as to what they had been used for and how they were used. This led to a lifelong passion for anything to do with the

history of woodworking, and the tools and techniques that surround the subject.

I soon discovered the two little booklets in the bottom of the chest, and I was surprised as to how relevant the information within them was to my everyday work. In time, they became my main point of reference whenever I'm working on doors or windows.

In the age where doors and windows were made by hand, the apprentice learned the basics under the watchful eye of his master. No one expected to have to record these skills; they were merely the basics, passed down from one generation to the next. But with the onset of the machine age and mass production, a lot of these techniques were soon lost.

The anonymous author of these booklets must have had the foresight to see this coming, and we should be forever grateful to him for recording his obvious years of experience making doors and windows as a joiner.

For years, I have recommended these wonderful booklets to fellow craftsmen, but sadly I could offer them no hope of finding copies for themselves because they rarely, if ever, came onto the open market. I would like to applaud Lost Art Press for making them available once again to everyone with an interest in keeping these traditional skills alive.

Richard Arnold

November 2013

Northamptonshire, England

"The Woodworker" Series, No. 8.

DOORMAKING

For Carpenters and Joiners.

DESCRIBING THE DOORS IN ORDINARY USE AND
THE METHOD OF SETTING-OUT AND
CONSTRUCTING THEM.

FULLY ILLUSTRATED.

LONDON :
ISSUED FROM THE OFFICE OF "THE WOODWORKER."

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PREFACE.

THE very limited knowledge possessed by a great many of the present day carpenters and joiners, especially in setting out their work—and through no fault of their own, as a rule—is the excuse for the compilation of this small handbook, the subject matter of which has already appeared in the pages of *The Woodworker*. The writer has, during his career of some forty years in the trade, found many young apprentices and journeymen willing to learn, but unable to get the opportunity of doing so, and he trusts that such will make full use of the ample details given, to study which will do no one any harm, and will probably be of great service to many.

The methods described and the styles shown are all practical ones, such as have been and are at the present time in constant use, although, as practice varies in different districts, and styles and methods are to a certain extent localised, some of the types may appear strange to the reader whose experience is limited. These will, however, be found to be in use in various parts of the country, and it is the

writer's hope that the details given will be of service both to apprentice and journeyman, as well as throwing some light on the subject for the benefit of those who, not being joiners, still desire to know how it is done; and if this end be obtained, the book will not have been written in vain, and will give satisfaction to its readers, its publishers, and

THE AUTHOR.

CHAPTER VI.

A DIMINISHED STILE SASH DOOR.

THE diminished stile sash door is so-called on account of the stiles being reduced in width at the upper—or sash—part of the door, thus giving a lighter and neater appearance, and also giving room for more glass. Such doors are often used in vestibules and similar situations, and, although at first sight they seem very simple to make, they do not come so in practice, especially to the novice.

Following our usual plan, we—in Figs. 70 and 71—show the elevation, with vertical and horizontal sections respectively of the complete door, and in Fig. 72 is the rod, set out with mortises and shoulder lines, ready for transferring to the various parts of the door. But, before doing so, we must explain in detail the best way to prepare the stiles for setting out. It is obvious that, on account of the reduced width of the stiles, it is impossible to square the mortises from the face edge in the usual way. We therefore use the back or outside edges of the stiles as the face, carefully gauging the two parts (top and bottom) to a parallel width from them, so that the lines, being at right angles to the outside edges, will also be the same from the insides.

The mortises on the rod are marked A, and the haunchings B, and these must be squared across from rod to stiles, as shown by dotted lines, to C,

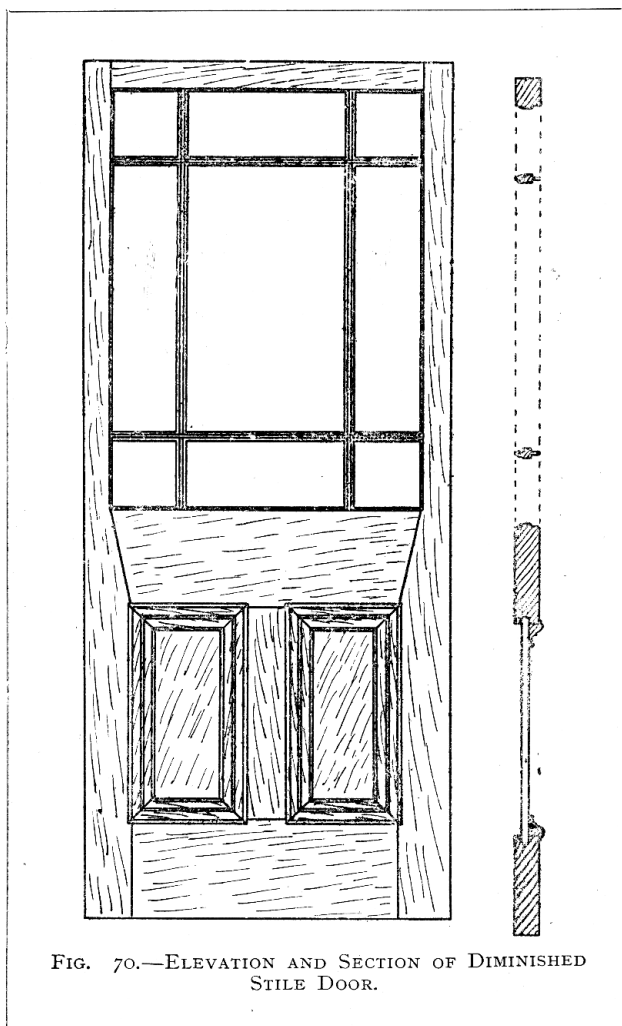


FIG. 70.—ELEVATION AND SECTION OF DIMINISHED STILE DOOR.

It will be noticed that the bottom part of the door is the same as the ordinary panel door, and the mortises come $\frac{1}{2}$ in. from the edges of the rails ; but the top part is different, the mortises coming to the extreme edges of the middle and top rails, also the bars : these latter, therefore, should be marked with the setting-out knife or chisel to ensure perfect fitting.

In gauging for the mortises, the gauge should be set so that the mortise just fills the square between the moulding and the rebate on the sash part of the door. This can be made to suit the width of the mortise chisel by regulating the width of the rebate to suit.

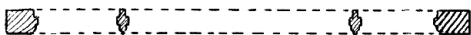


FIG. 71.—SECTION OF UPPER PART OF DIMINISHED STILE DOOR.

The two upright sash bars will be set out from the height rod the same as the stiles (D, Fig. 72), with the exception of the mortises ; these are not wanted on the bars, their place being taken by the two lines, as shown, the distance apart of which is regulated by the thickness of the tongues on the bars.

The width of the door is set out on the left side of the rod—the upper end being the sash part of the door, and the lower part of the panelled portion.

The middle and top rails, also the two cross-bars, are shown as set out at E. The shoulders must be left long enough to fit into the rebates and mouldings, as shown by the dotted lines.

The top rail does not need mortising through

but to the depth of 1 in. only, and the middle rail will not need squaring across for the shoulders, as these have to be on the bevel to fit the diminishing stiles.

The setting out of the middle and bottom rails for the bottom portion of the door is shown at F, Fig. 72; but, as this is the same as an ordinary door, it should not require any explanation.

The best way to mark the diminishing stiles and the corresponding shoulders on the middle rail is by means of a pair of templates, as Fig. 73, C for the

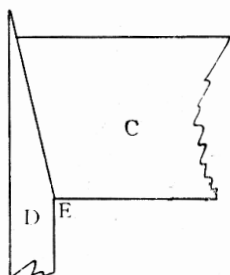


FIG. 73.—TEMPLATES FOR MARKING-OUT SHOULDERS.

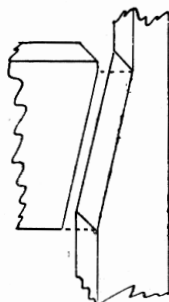


FIG. 74.—DIMINISHING PART OF STILE.

rails and D for the stiles. If these are made to fit together so that the angle at E is a perfect right angle, no trouble will be experienced in making the shoulders fit.

There is one little thing in connection with the middle rail which needs mentioning; this is what has, with some truth, been called the beginner's trap. It is this: the stiles should not be diminished until the whole width of the rail will fit to them;

but the depth of the moulding less, the rail being cut to correspond, as in Fig. 74. The stiles will be still further diminished on working the moulding and rebating, and the rail will fit ; whereas, if the former were diminished so as to take the full width of the

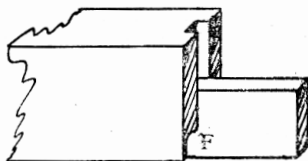


FIG. 75.—TOP RAIL SCRIBED AND HAUNCHED.

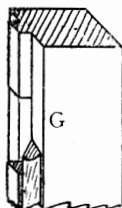


FIG. 76.—TOP OF STILE.

latter at the beginning, the moulding on the rail would not meet the other as it should do, but would leave space between. A very good object-lesson can be had by making a joint such as this for trial.

The top rail must be haunched as Fig. 75, and the moulding cut away ("scribed") to fit that on the stiles, as at F. The moulding on the stiles is cut

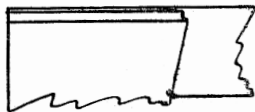


FIG. 77.—HOW TO CUT THE MIDDLE RAIL.

away, as at G, Fig. 76, to allow the square part of the shoulder to fit in.

The moulding on the middle rail is cut out in the same way as in Fig. 77, while Fig. 78 shows how to "scribe" the bars.

The upright bars are first sawn in at the shoulders, as Fig. 79, and after moulding and rebating (technically "sticking"), they are sawn asunder as Fig. 80, first numbering each portion.

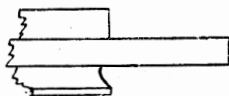


FIG. 78.—HOW TO SCRIBE THE BARS.

These are then "scribed" as at H, and on putting them into the cross bars, the joint in section is as Fig. 81—I being the cross-bar, and K the two portions of the upright bar.

It must be understood that all mortises must be



FIG. 79.—UPRIGHT BARS SAWN AT SHOULDERS.

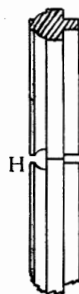


FIG. 80.—UPRIGHT BARS MOULDED AND SAWN ASUNDER.

made and all tenons cut before moulding and rebating; but not the shoulders; with the exception of the shoulders on the bars, these should be cut, and not the tenons: these taking the whole of the width

between the moulding and rebate, are formed by cutting away the latter with the chisel, after "sticking." It will be noticed that the thickness of the various portions of the door is shown out of pro-

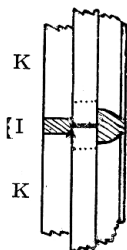


FIG. 81.—METHOD OF JOINTING BARS.

portion in Fig. 72. This is done for the sake of showing the gauge lines clearly ; to show the width of each part in proportion would occupy too much space.