

may be dispensed with and the skirting finished with a curved end against the casing; the feet of the architrave would then be mitred to the upper splayed edge of the skirting. The ovolo moulded glazing bead conforms with the stuck moulding on the opposite side.

Each of the eighteen glazed panels of the door at C is proportioned in accordance with the construction shown at T, Fig. 60, Vol. I, *i.e.*, the height equals the hypotenuse of a square which has a length of side equal to the width of the pane. Three alternative details of the wide bottom rail are shown at M, N and O. That at N shows a compound rail, the lower portion being sunk-chamfered both sides and tenoned into the upper. Alternatively, as shown at M, the lower rail may be tenoned into the upper and finished flush on one side with a double bead, and having a similar beaded mould inserted in the other. The alternative finish at O shows a narrow  $\frac{1}{2}$ -in. thick panel. As an internal door should be kept  $\frac{1}{2}$ -in. from the floor to allow it to swing clear of a carpet with underfelt, draughts may be minimized if, as shown at N, a splayed hardwood slip is well screwed to the floor; this is an alternative to that shown with rounded edges at J, Fig. 52, Vol. I. Of course, such provision is not necessary if the doors are hung with skew butt hinges (see Z, Fig. 45, Vol. I). The details at M and N show the glass fixed with glazing beads; as an alternative, the glass at O is shown sprigged and puttied.

The single panel of the door at D is of glass. The detail at L shows that architraves have been dispensed with and the projecting casing finished with rounded edges. The casing is grooved to receive the plaster and a  $\frac{1}{2}$  or  $\frac{3}{4}$ -in. stop is nailed to it. Because of the large size of the sheet,  $\frac{3}{8}$ -in. polished plate glass has been specified.

The upper panel only of the door at E is glazed; a detail is provided at S.

A portion of the door at F is glazed. The detail at T shows a thick (1-in. nominal) panel finished with large bolection mouldings on both sides. The glazed sash, divided into four small panes, is grooved on its outer edges and engaged in the panel. The architrave at the bottom of the detail is shown finished on the splay of the skirting. Alternatively, the latter may have the same projection and a similar moulding as the architrave, to provide a mitred joint.

The old-fashioned *diminished stile door*, still occasionally used, is illustrated at G. It has either one or two wood panels at the bottom, and the upper portion is glazed. In order to provide the maximum area of glass, the width of the upper portions of the stiles which receive it is decreased. Hence the terms *diminishing stiles* and *gun-stock stiles* which are applied to these vertical members. The joint between the middle rail and stile is shown at R, the latter being diminished from  $4\frac{1}{2}$  to 3-in. nominal. The development in this sketch presents a somewhat peculiar appearance due to the opposite shoulders not being parallel. If required, a stuck moulding of width equal to the depth of the glazing rebate could be worked on the rails and stiles, and parallel shoulders would result. A vertical section through the middle rail is shown at Q, and a detail at one of the jambs above this rail is illustrated at P.

An external entrance is shown at H. The brickwork at the jambs has three  $1\frac{1}{2}$ -in. deep recesses (see inset plan) which are continued at the head formed of purpose-made voussoirs. The door has an octagonal shaped glazed panel divided by glazing bars. A detail of this door and frame is shown at U. It is somewhat similar to that at T, except that it is bolection moulded on one side only and the thick panel is raised and fielded. Being an external door, the glass is tinted or otherwise obscured. In the detail it is assumed that the frame is set back slightly from the inner recess. If, as shown in the part plan at H, the door is set farther back, the detail at the frame will be similar to either of those shown at P, Fig. 21, K and P, Fig. 22, or G, Fig. 23.

The door illustrated in Fig. 23 is partially glazed, as is also the flush door at C, Fig. 25.

(d) FLUSH DOORS (see Fig. 25).—These doors, faced with plywood,<sup>1</sup> are described on pp. 94 and 95, Vol. I. A selected few of the various types are illustrated at A to E inclusive. Most of these are mass-produced. The standard sizes are 6-ft., 6-ft. 4-in., 6-ft. 6-in., 6-ft. 8-in., 6-ft. 10-in. and 7-ft. high, 2-ft., 2-ft. 4-in., 2-ft. 6-in., 2-ft. 8-in., 2-ft. 10-in. and 3-ft. wide and  $1\frac{1}{2}$  to 2-in. thick.

A flush door may consist of either a skeleton or hollow frame covered both sides with plywood (see A, B, C and E), or it may have a solid core throughout with plywood facings (see D). Most mass-produced flush doors are of the skeleton framed type, chiefly because of the great economy in the amount of timber which results.

The hollow framed flush door shown at A is detailed at F. The frame consists of 4-in. by  $1\frac{1}{2}$ -in. (nominal) stiles, top and bottom rails, and 2-in. by  $1\frac{1}{2}$ -in. intermediate rails at 6 to 9-in. centres; alternatively, 3-in. wide intermediate rails at approximately 1-ft. centres may be employed. The top and bottom rails are tenoned and glued to the stiles, the tenons preferably extending the full width of the stiles as shown at Q. The intermediate rails are glued, tenoned and cramped into the continuous grooves formed in the stiles (see F and R). Ventilation holes, as shown, should be provided to ensure a thorough circulation of air within the framing; care should be taken to see that those in the top rail are not subsequently "stopped" with putty by the painter. For good class doors the plywood facings should be  $\frac{1}{4}$ -in. thick;  $\frac{3}{8}$ -in. 3-ply is only employed on cheap doors. Edging slips, especially on the striking stiles, are necessary. Several forms of these are shown at F, H and J. If, as shown at G, no such provision is made and the plywood is continued to the outer edges of the stiles, the plywood is readily damaged by splintering, especially if the door swells on account of the absorption of moisture, and a tight fit between it and the casing results. Edging slips are fixed on all edges of good class doors. A lock block should be provided, as shown at A, to allow for the insertion of a mortise lock. The position of this should be indicated on the outside, otherwise a block is provided at each side,

<sup>1</sup> A description of the manufacture, characteristics and uses of plywood, laminboard and blockboard is given on pp. 97-103.