

PLAIN TILING¹

Plain tiles are made of clay which is very finely ground, moulded into slabs and subsequently dried and burnt. Like bricks, both hand-made and machine-made tiles are produced. Hand-made tiles have a sand-faced surface and are obtainable in a variety of colours. They have a better texture, are tougher, are less liable to lamination, and are more expensive than those which are machine-made. The latter are also made in a wide range of colours.

The size is usually 10½-in. by 6½-in. by ¾ to ½-in. thick (see A, Fig. 70). They have a slight camber or *set* (10-ft. radius) in their length which ensures that the tails will bed and not ride on the backs of those in the course below. A tile has two (sometimes three) *stubs* or *nibs* which project on the bed or underside at the head in order that it may be hung from the batten, and each tile has two holes formed at about 1-in. from the head and 1½-in. from the edges. Special tiles are also made, thus: *eaves tiles* (6½-in. by 6½-in.) and *tile and a half* (10½-in. by 9¾-in. or wider). The latter are used at alternate courses at verges and swept valleys.

Terms, such as bond, gauge, margin, etc., used in slating are also applied to tiling.

Plain tiles are laid in regular bond, and the preparation of a roof to receive the tiles is similar to the methods described on p. 138 with exception of "boarding and felting," as this is impracticable for tiling on account of the nibs.

The nails used are similar to those described on p. 134, and 1½-in. long copper nails are used in most good work.

Unlike slating, every tile is not secured with nails unless for roofs in exposed positions. It is usually specified that every tile in each *fourth* course shall be twice nailed. The double eaves course tiles, ridge course tiles and all verge, hip and valley tiles must also be nailed.

PITCH, LAP and GAUGE.—As a plain tile is a relatively small unit, a large lap is not practicable, and therefore the usual lap employed is 2½-in. This

¹ In some technical colleges, plain tiling is preferred to slating as a first year subject of a Building Course and hence a brief mention of it is made here. Plain tiles and other roofing materials are given more extended treatment in Chapter Three, Vol. III.

necessitates an increase in the minimum pitch to 45°. For reasons previously given, this angle should be avoided, and a pitch of 50° to 55° adopted.

The gauge equals $\frac{\text{length} - \text{lap}}{2} = \frac{10\frac{1}{2} - 2\frac{1}{2}}{2} = 4\text{-in.}$ As in slating, *there must be THREE thicknesses of tiles at the lap.*

Typical eaves and ridge details are shown in Fig. 70.

EAVES DETAIL (see C).—The spars forming the simple open eaves project only 3-in., and a large tilting fillet is fixed to them to give the necessary tilt for the lower courses and the doubling eaves tiles are hung from its upper edge.

RIDGE DETAIL (see B).—The top course, like that in slating, is tilted by using a thicker batten at the ridge; the length of this course should be such as to give a 4-in. margin, and in the example it is 8½-in. Either the hog-back ridge tile as shown, or a half-round ridge tile (as shown at D, Fig. 69) provides a suitable finish, and these tiles should be bedded, jointed and pointed in cement mortar or mastic as described for slating. This pointing material may be coloured to conform with that of the tiles. The underside of the tiles is shown torched, but untearable felt (fixed as described on p. 136) may be used if preferred. Lead-covered ridges should never be used for tiled roofs on account of the colour which, as a rule, contrasts violently with that of the tiles.

Tiled verges may be constructed in a similar manner to that shown for slating at N, Fig. 69.

Hips are often finished with similar tiles to those used for ridges, but such are unsightly. The best treatment is that provided by bonnet-hip tiles; these are curved and bond in with the adjacent tiling. Purpose-made V-shaped hip tiles which course in with the plain tiles are also employed.

The best form of valley for a tiled roof is the swept valley where each course of tiles in the adjacent sloped surfaces is swept round to a suitable curve; this is constructed as briefly explained on p. 137. Another good form is the laced valley where wide tiles are used at the intersection and each course is lifted to give a laced effect. The most common method adopted, especially for speculative work, consists of forming a lead valley as shown for slating in Fig. 73; this is not desirable on account of its unsatisfactory appearance, for in general, leadwork in a tiled roof should not be exposed to view as its colour clashes with that of most tiles.