edge of the next tile and the joints were covered with a semi­circular joint tile (imbrex). Rows of terra-cotta antefixae were set along the eaves of the roof, and were often moulded with very beautiful reliefs. In localities which supply laminated stone, such as Gloucestershire and Hampshire in Britain, the Romans often roofed their buildings with stone tiles fastened

with iron nails. Fig. 3, B, shows an example from a Roman villa at Fifehead Neville, in Dorset, England. Each slab had a lap of about 2" over the row of tiles below it; many large iron nails were found with these stone tiles.

In a few cases, in the most magnificent temples of ancient Rome, as in those of Capitoline Jupiter and of Venus and Rome, and also the small circular temple of Vesta@@1 tiles of thickly gilded bronze were used, which must have had a most magnificent effect. Those of the last named building are specially mentioned by Pliny *(H.N.* xxxiv. 7) as having been made of Syracusan bronze@@2—an alloy in great repute among the Romans. The bronze tiles from the temples of Jupiter Capitolinus and of Venus and Rome were taken by Pope Honorius I. (625-638) to cover the basilica of St Peter, whence they were stolen by the Saracens during their invasion of the Leonine city in 846.@@3

In medieval times lead or copper@@4 in large sheets was used for the chief churches and palaces of Europe; but in more ordinary work clay tiles of very simple form were employed. One variety, still very common in Italy, is shown in C, fig. 3. In this form of so-called “ pan-tile ” each tile has a double curve, forming a *tegula* and *imbrex* both in one. Stone tiles were also very common throughout the middle ages. Another . kind of roofing tile, largely used in pre-Norman times, and for some centuries later for certain purposes, was made of thin pieces of split wood, generally oak; these are called “ shingles.” They stand the weather fairly well, and many old examples still exist, especially on the wooden towers and spires of East Anglia.

At the present day, when slate is not used, tiles of burnt clay are the ordinary roofing material, and many complicated forms have been invented to exclude rain. Most of these are, however, costly and do not answer better than the rectangular tile about 9 by 6 in., fastened with two copper or even stout zinc nails, and well bedded on mortar mixed with hair. For additional security clay tiles are usually made with two small projections at the upper edge, which hook on to the battens to which they are nailed. The district round Broseley (Shropshire) is one of the chief centres in England for the manufacture of roofing tiles of the better sort. The common kinds are made wherever good

brick-clay exists. In some places pan-tiles are still used and have a very picturesque effect; but they are liable to let in the rain, as they cannot be securely nailed or well bedded in mortar. In Gloucestershire, Yorkshire, north-east Lancashire and other counties of England, stone tiles are still employed, but are rapidly going out of use, as they require very strong roof timbers to support them, and the great extension of railways has made the common purple slates cheap in nearly every district. The green slates of the Lake District are now extensively used for this purpose, often with excellent effect.

Some of the mosques and palaces of Persia are roofed with the most magnificent, enamelled, lustred tiles, decorated with elaborate painting, so that they shine like gold in the sun. They were specially used from the 13th century to the 15th. In style and manufacture the finest of them resemble the frieze shown in fig. 5.

2. *Wall Tiles.—*These are partly described under Mural Decoration (*q.v.*).@@5 In most oriental countries tiles were used in the most magnifi­cent way throughout the middle ages especially in Constantinople, Broussa, Damascus, Cairo, Moorish Spain, and in the chief towns of Persia. Fig. 4 shows a fine example from a mosque in Damas­cus. From the 12th to the 16th century a special kind of lustred tiles was largely employed for dadoes, friezes and other wall surfaces, being fre­quently made in large slabs, modelled boldly in relief with sentences from sacred books or the names and dates of reign­ing caliphs. The whole was picked out in colour, usually dark or turquoise blue, on a ground of cream-white enamel, and in the last firing minute ornaments in copper lustre were added over the whole design, giving the utmost splendour of effect (see fig. 5). Great skill and taste are shown by the way in which the delicate painted enrichments are

made to contrast with the bold decoration in relief. These lustred tiles sometimes line the prayer-niche in houses and mosques; in such cases the slabs usually have a conventional representation of the kaaba at Mecca, with a lamp hanging in front of it and a border of sentences from the Koran.@@6 The mosques of Persia are specially rich in this method of decoration,

@@@1 The dome of the Pantheon was covered with tiles or plates of bronze thickly gilt, as were also the roofs of the forum of Trajan.

@@@2 Bronze tiles for small buildings such as this were usually of a pointed oval form, something like the feathers of a bird. This kind of tiling is called *pavonaceum* by Pliny, *H.N.,* xxxvi. 22.

@@@3 Part of the bronze tiles had been stripped from the temple of Jupiter by the Vandals in 455; see Procopius, *Bell. Van.* i. 5.

@@@4 The gilt domes of Moscow are examples of this use of copper. See also the domed churches at Rotterdam, Amsterdam, Hamburg and Lübeck.

@@@5 For the enamelled wall tiles of ancient Egypt, see Ceramics.

@@@6 The Victoria and Albert Museum, London, contains many fine examples of the early as well as of the later sorts, like those shown in fig. 4.