Salisbury an octagonal pinnacle at the angle and a triangular spire light against the spire. The happiest combination of all, however, is perhaps the spire of St Mary’s, Oxford, with three ranges of angle niche-groups set one behind the other, forming with the centre spire a magnificent cluster of spires; the niche gables and pinnacles are all enriched with crockets and the ball flower in the arch mouldings.

Reference has already been made to two of the French spires, at Chartres and St Denis; there is nothing like the diversity of design in France, however, when compared with those in England, and there are but few on the crossing of nave and transept; the towers were built to receive them, as at Amiens, Reims and Beauvais, but for some reason not carried above the roof, possibly from some doubt as to the expediency of raising stone lanterns and spires of great weight on the four piers of the crossing; on the other hand their places were taken by constructions in timber covered with lead, of immense height and fine design. There was a 13th-century flêche on the crossing of Notre-Dame, Paris, taken down soon after the beginning of the 19th century, of which the existing example by Viollet-le- Duc is a copy. The same fate befell that over the Sainte Chapelle, Paris, being reconstructed about 1850 by Lassus. The flêche at Amiens, though of late date (*c*. 1500), is still in good preservation and is a remarkable work; above the ridges of the roofs of nave and transept, and octagonal in plan, are two stages, the upper one set back to allow of a passage round, and, above the cresting of the latter, a lofty octagonal spire with spire lights at the base on each side, crockets up the angles, and other decorations in the lead work with which it is covered. Including the vane, from the ridge of roof the height is 182 ft. Of timber flèches covered with slates there are many examples in the north of France, those at Orbais (Marne) and the abbey at Eu (Seine Inférieure) being the best known. Returning to stone spires, those on the west front of St Stephen’s, Caen (Abbaye-aux-Hommes), are good examples with lofty octagonal turrets and pinnacles at west angle and spire light between, and among others are those of St Pierre at Caen, Senlis, Cou- tances, Bayeux, and many others in Calvados, and at Soissons, Noyon and Laon in Picardy. One of the most beautiful spires in France, though of late date, is that of the north-west tower to Chartres Cathedral. In the south of France, in the Charente and Périgord, the stone spire takes quite another form, being of much less height, of convex form, and studded with small scales, giving somewhat the appearance of a pine cone, with small pinnacles also with scales, and carried on a group of shafts at the angles of the tower. The west tower of Angoulême Cathe­dral, the central towers of Saintes Le Palud, and Plassac in the Charente, and the tower of St Front, Périgueux, and Brantôme in Périgord, have all spires of this kind, of which a small example crowns the Lanterne des Morts at Cellefrouin. The German towers are generally covered with roofs only, of varied form, but at Ulm, Strassburg, Freiburg and Cologne is a remarkable scries of traceried spires in stone, of great elaboration and show­ing great masonic ability, but wanting in repose and solidarity, and the same applies to the spire at Antwerp. In Spain there are not many examples of note, the spire at Burgos suggesting in its outline and want of height the influence of the Périgordian spires, and that at Salamanca the influence of those in the north of France.

Looking upon the spire as the crowning feature of a tower, those of the Renaissance period must be included here, though as a compromise they are often termed “ steeples.” Of these the finest and most varied are those by Wren in London, among which that of Bow Church and St Bride’s, Fleet Street, are the best known, the former with two stages of lanterns with de­tached columns round, and the latter octagonal on plan with five stages, set one behind the other, with arches in centre of each face and pilasters at the angles. St Antholin, now de­stroyed, was the only example based on a Gothic prototype; it consisted of an octagonal spire with Renaissance spire lights and angle finials resting on the upper octagonal storeys of the tower. St Margaret Pattens somewhat resembles it, but the

tower has a balustrade round and the angle pinnacles are in the form of obelisks, a favourite Renaissance interpretation of the Gothic finial, which is found in other churches, as in those of St Martins-in-the-Fields by Gibbs and St Giles-in-the-Fields by Flitcroft. Hawksmoor apparently based his spire of St George’s, Bloomsbury, which consists of a series of lofty steps, and is crowned with a statue of George I., on that of the mausoleum at Halicarnassus. In France, Italy and Spain, lanterns usually terminate the towers. The spire of the Seo at Saragossa in design somewhat resembles those of Wren, being one of the few examples worth noting. (R. P. S.)

**SPIRE LIGHT** (Fr. *lucarne),* the term given to the window's in a spire which are found in all periods of English Gothic architecture, and in French spires form a very important feature in the composition. There is an early example in the spire of the cathedral at Oxford; they are not glazed, and have occasion­ally, if of large size, transoms to strengthen the mullions.

**SPIRES** (Ger. *Speyer* or *Speier),* a town and episcopal see of Germany, capital of the Bavarian palatinate, situated on the left bank of the Rhine, at the mouth of the Speyerbach, 16 m. S. of Mannheim by rail. Pop. (1905), 21,823. The principal streets are broad but irregular, and the general appearance of the town little corresponds to its high antiquity, owing to the fact that it was burned by the French in 1689. The only impor­tant ancient building that survived the flames is the cathedral, a very large and imposing basilica of red sandstone, and one of the noblest examples of Romanesque architecture now extant. Beyond the general interest attaching to it as one of the old Romanesque churches of the Rhineland, Spires Cathedral has a peculiar importance in the history of architecture as probably the earliest Romanesque basilica in which the nave as well as the side arcades was vaulted from the first (see Architecture: *Romanesque in Germany).* Built in 1030-1061 by Conrad II. and his successor, this church has had a chequered history, its disasters culminating in 1689, when the soldiers of Louis XIV. burned it to the bare walls, and scattered the ashes of the eight German emperors who had been interred in the king’s choir. Restored in 1772-1784 and provided with a vestibule and façade, it was again desecrated by the French in 1794; but in 1846-1853 it was once more thoroughly restored and adorned in the interior with gorgeous frescoes at the expense of the king of Bavaria. The large cathedral bowl (Domnapf) in front of the west façade formerly marked the boundary between the episcopal and municipal territories. Each new bishop on his election had to fill the bowl with wine, while the burghers emptied it to his health. The heathen tower to the east of the church, on founda­tions supposed to be Roman, was probably part of the town-wall built in 1080 by Bishop Rudger. Of the Retscher, or imperial palace, so called because built after the model of the Hradschin at Prague, only a mouldering fragment of wall remains. It was in this palace that the famous Diet of Spires met in 1529, at which the Reformers first received the name of Protestants. The Altpörtel (*atta porta)*, a fine old gateway of 1246, is a relic of the free imperial city. Among the modern buildings are several churches and schools, a museum and picture gallery, &c. Spires, although rebuilt in 1697, has never recovered from the injuries inflicted by the French in 1689. Its trade is in­significant, although it still has a free harbour on the Rhine. Its manufactures include cloth, paper, tobacco and cigars, sugar, sugar of lead, vinegar, beer and leather. Vines and tobacco are grown in the neighbourhood.

Spires, known to the Romans as *Augusta Nemetum* or *Nemetae,* and to the Gauls as *Noviomagus,* is one of the oldest towns on the Rhine. The modern name appears first under the form of Spira, about the 7th century. Captured by Julius Caesar in 47 b.c., it was repeatedly destroyed by the barbarian hordes in the first few centuries of the Christian era. The town had become an episcopal scat in the 4th century; but heathenism supervened, and the present bishopric dates from 610. In 830 Spira became part of the Frankish Empire, the emperors having a "palatium ” here; and it was especially favoured by the Salic imperial house. The contentions between the bishops and the