bank of the Moselle, pleasantly surrounded by low vine­clad hills, 60 miles south-west of Coblentz and 86 miles south of Cologne. It lies in the midst of a carefully cultivated and fertile plain, the rich vegetation of which forms a pleasing setting to its red sandstone walls and venerable towers. Most of the old streets of the town are quaint and irregular ; but much of the space enclosed within the circuits of the walls is now occupied by orchards and gardens. The population of Treves in 1885 was 26,125, five-sixths of whom were Roman Catholics. Their chief occupations are fruit-growing and vine-dressing ; the industries of the place, including the manufacture of cotton and linen, dyeing, and tanning, are not very exten­sive. A specialty of Treves is the preparation of stones for Gothic churches, which are sent off ready to be at once placed in position. A river traffic is carried on in wine, cattle, and wood.

Treves claims to be the oldest town in Germany, and it contains more important Roman remains than any other place in northern Europe. The most remarkable of these is the Porta Nigra, a huge fortified gateway, 115 feet long, 70 to 95 feet high, and 30 feet deep. It is formed of uncemented blocks of sandstone, held together by clamps of iron, and now blackened with time; the details are very rude. Opinions vary widely as to the date of its erection, but recent authorities refer it to the 1st century of the Christian era. During the Middle Ages the structure was converted into two churches, one above the other ; all additions have, how­ever, now been removed, except the apse at the east end. The basilica, long used as the archiepiscopal palace and now consecrated as a Protestant church, probably dates from the reign of Constan­tine. The so-called Roman baths are in all probability the relics of an extensive imperial palace. Just outside the town are the remains of an amphitheatre, capable of accommodating 30,000 spectators, where Constantine caused several thousand Franks and Bructeri to be butchered for the public amusement. Perhaps the oldest Roman remains in Treves are some of the piers of the bridge over the Moselle, dating from about 28 B.c. This bridge, which is at one corner of modern Treves, lay near the middle of the much more extensive Roman city. There are also numerous Roman antiquities in the neighbourhood of Treves, the most important of which are the Igel column, a sepulchral monument of the 2d century, and the mosaic pavements at Nennig and Fliessem.

Another group of interesting buildings belongs to the second period of prosperity enjoyed by Treves under the rule of its mediæval prelates. The cathedral, described by Lübke as the most important example of pre-Carlovingian building in Germany, mirrors the entire history of the town. Its kernel consists of part of a Roman basilica of the 4th century, which seems to have been converted into a Christian church at a very early period. It was restored by Bishop Nicetius about 550, and in the 11th and 12th centuries it was again restored and greatly extended by Archbishop Poppo and his successors, who added an apse at each end and left it substanti­ally in its present form. The cathedral is connected by beautiful cloisters of the 13th century with the circular Liebfrauenkirche, one of the most interesting early Gothic churches in Germany (1227-43), catching up the architectural thread at the point dropped by the cathedral. Among the treasures of the latter is the “ holy coat of Treves,” believed by the devout to be the seamless garment worn by our Saviour at the crucifixion, and said to have been pre­sented to the town by the empress Helena, the central figure in Treveran Christian legend. Its exhibition in 1844 attracted a million and a half of pilgrims to Treves. According to recent authorities, the earliest churches in Treves were those of Sts Eucharius, Maximin, Matthew, and Paul, all without the walls, now rebuilt or converted to secular purposes. Of the modern buildings none call for special remark. The town library contains about 100,000 volumes, including several valuable specimens of early printing. Its greatest treasure is the *Codex Aureus,* a manuscript of the Gospels presented to the abbey of St Maximin by Ada, sister of Charlemagne. The same building also contains an interesting collection of Roman and mediæval antiquities.

A mediæval legend, preserved in an inscription on the old Rothes Haus inn, places the foundation of Treves 1300 years before that of Rome, and ascribes it to Thebetas, son of Ninus, king of Assyria. But, fable apart, we must still allow that Treves has good claim to call itself the oldest town in Germany. It is a little doubtful whether the Treviri were of Teutonic or Celtic stock. St Jerome records that the language of the Treviri of the 4th century resembled that of the Gauls of Asia ; but, even if we admit this evidence as conclusive of their Celtic origin, we must recognize the fact that they were Celts who were long under Teutonic influence. Their authentic history begins with the story of their subjection by Julius Cæsar (56 b.c.), who describes them as a warlike race, with the best cavalry in Gaul. The Roman town, *Colonia Augusta Trevirorum* (or *Treverorum),* was probably founded by the emperor Claudius, and rapidly obtained a wealth and importance which justified the poet Ausonius (4th century) in describing it as the second metropolis of the empire, or “ Rome beyond the Alps.” It became the capital of Belgica Prima, and during the 4th century was a favourite residence of Constantine and other Roman emperors. Most of the palaces and public buildings, of which the remains are still extant, were built at this period, while the surrounding hills were covered with villas. Treves was laid in ruins by Attila in 451, and about 465 was permanently taken possession of by the Franks. It was included in the kingdom of Austrasia, and became a German city in 870. Like its prototype Rome, it attained a second era of prosperity and importance as an ecclesiastical capital (see below), and in the Middle Ages the “Sancta Civitas Trevirorum ” swarmed with “religious” of all kinds and grades. Unlike most of the German episcopal cities, however, it did not succeed in shaking off the ecclesiastical yoke, nor did it attain, except transitorily, the position of a free imperial city. Wars and sieges occasionally checked but did not stop its growth. Art and science were sedulously fostered in the monastic schools, and a university, founded in 1473, existed down to 1798. The importance of Treves departed with the overthrow of the ecclesiastical principality. In 1786 the last elector shifted his residence to Coblentz, and from 1794 to 1814 Treves was capital of the French department of the Sarre. Since the latter date it has belonged to Prussia.

The archbishopric and ecclesiastical electorate of Treves, bounded by Nassau, Cologne, Luxemburg, Lorraine, the Rhenish Palatinate, Hesse-Rheinfels, and Katzenelnbogen, had an area of about 3200 square miles and a population of 250,000 to 300,000. Its suffragan bishops were those of Metz, Tout, and Verdun, and after 1777 also those of Nancy and St Dié. As elector of the German empire the archbishop took the second place, and bore the style of arch-chancellor of Gaul or Burgundy. Legend places the foundation of the bishopric of Treves in the 1st century of the Christian era, but the first bishop known to history is Agricius, who flourished about 314. The see appears as an archbishopric in the 9th century, and in the Middle Ages the archbishops attained considerable temporal power. Among the most prominent were Baldwin of Luxemburg (1307- 1354), brother of the emperor Henry VII., who may be regarded as the founder of the territorial greatness of the see, and Richard von Greiffenklau (1511-1531), who distinguished himself by his successful opposition to the Reformation. The last archbishop was Clemens Wenceslaus (1768-1802) of Saxony. The part of the archbishopric on the left bank of the Rhine was taken by France in 1801, and the rest was secularized in favour of the prince of Nassau- Weilburg in 1803. After the fall of Napoleon the archbishopric was incorporated with Prussia. A new bishopric of Treves was instituted in 1821, the boundaries of which are almost conterminous with those of the old archbishopric ; the bishop is a suffragan to the archbishop of Cologne.

See “Augusta Treverorum,” an article by E. A. Freeman in the *British Quarterly Review* for July 1875.

TREVIRANUS, Gottfried Reinhold (1776-1837), German naturalist, was born at Bremen, February 4, 1776, studied medicine at Göttingen, in 1797 became professor of mathematics in the Bremen lyceum, and died at Bremen, February 16, 1837.

He made numerous important contributions to comparative anatomy, especially in regard to birds and spiders. Though noted for his learning and acute observation, his studies in geographical distribution cannot be said to have led to any very definite results. It is rather on account of his contributions to ætiology that he de­serves to be remembered, though his work in this department has been to a great extent overlooked. In the first of his larger works, *Biologie oder Philosophie der lebenden Natur,* which appeared from 1802-1805, he gave clear expression to the theory of “ descent with modification.” He believed that simple forms (Protists), which he termed “zoophytes,” were “the primitive types from which all the organisms of the higher classes had arisen by gradual development.” ‘ ‘ Every living creature has a potentiality of endless modification of adapting its structure to the changes in the external world.” He also maintained that each species has its day or period, at the end of which it does not become extinct, but has simply ceased to be, because it has become something else. That he stated the theory of descent with much clearness, and with a sufficient background of actual knowledge of forms, must be acknowledged by all ; the only difficulty relates to the question of priority. The first volume of his biology was published in 1802, but he states that this had been written about 1796. Now it was not till 1801 that Lamarck first began to free himself from the traditional dogma of the immuta­bility of species, and to publish his views of evolution. Neither Goethe nor Oken can be said to have done much more than follow up the ironical insinuations of Buffon (1753-76) and the ingenious suggestions of Erasmus Darwin, whose *Zoonomia* was translated