

\$23,419,266 and \$711,420; the following figures for recent years show a considerable decline on the total:—

Years ending in June	Exports.	Imports.
1877	\$12,784,171	\$648,404
1878	9,493,306	1,148,442
1879	6,219,818	544,628
1880	7,188,740	425,519
1881	6,595,140	671,252
1882	3,258,605	396,573

In cotton, which forms the staple export, the falling off is particularly noticeable, 632,308 bales being the average for 1855 to 1859, and 365,945, 392,319, and 265,040 bales the quantities for 1879, 1880, and 1881. A great deal of what comes to the Mobile market is sent to New Orleans for shipment, partly that it may obtain a higher price as "Orleans" cotton. Lumber shingles, turpentine and rosin, fish and oysters, and coal, are also important items, but do not make in the aggregate so much as half the value of the cotton. Among the local industrial establishments are several spinning-mills, breweries, cooperages, shipbuilding yards, foundries, and sash and door works. The market gardeners of the outskirts produce a large quantity of cabbages, potatoes, water-melons, tomatoes, &c., to supply the cities of the western and northern States (value in 1879, \$112,520; 1880, \$174,483; 1881, \$159,706; 1882, \$367,194; 1883, estimated \$700,000). Though in 1820 it had no more than 2672 inhabitants, Mobile had 31,255 in 1880; the figures for the intermediate decades being 3194 (1830), 12,672 (1840), 20,515 (1850), 29,258 (1860), and 32,034 (1870).

Founded as a fort by Lemoyne d'Iberville (de Bienville) in 1702, Mobile continued to be the capital of the colony of Louisiana till 1723, when this rank was transferred to New Orleans. The site selected by Lemoyne was probably about 20 miles above the present position, which was first occupied after the floods of 1711. By the Treaty of Paris, 1763, Mobile and part of Louisiana were ceded to Britain; but in 1780 the fort (now Fort Charlotte) was captured by the Spanish general Galvez, and in 1783 it was recognized as Spanish along with other British possessions on the Gulf of Mexico. General Wilkinson, ex-governor of Louisiana, recovered the town for Louisiana in 1813, and in 1819, though its population did not exceed 2500, it was incorporated as a city. In 1864-65 Mobile and the neighbourhood was the scene of important military and naval engagements. The Confederates had surrounded the city by three lines of defensive works, but the defeat of their fleet by Admiral Farragut, and the capture of Fort Morgan, Spanish Fort, and Fort Blakely, led to its immediate evacuation. As a municipal corporation, Mobile had got into such financial difficulties by 1879 that its city charter was repealed, and a board of commissioners established for the liquidation of its debt of \$2,497,856.

MÖBIUS, AUGUST FERDINAND (1790-1868), astronomer and mathematician, was born at Schulpforta, November 17, 1790. At Leipsic, Göttingen, and Halle he studied for four years, ultimately devoting himself to mathematics and astronomy. In 1815 he settled at Leipsic as privat-docent, and the next year became extraordinary professor of astronomy in connexion with the university. Later he was chosen director of the university observatory, which was erected (1818-21) under his superintendence. In 1844 he was elected ordinary professor of higher mechanics and astronomy, a position which he held till his death, September 26, 1868. His doctor's dissertation, *De computandis occultationibus fixarum per planetas* (Leipsic, 1815), established his reputation as a theoretical astronomer. *Die Hauptsätze der Astronomie* (1836), *Die Elemente der Mechanik des Himmels* (1843), may be noted amongst his other purely astronomical publications. Of more general interest, however, are his labours in pure mathematics, which appear for the most part in Crelle's Journal from 1828 to 1858. These papers are chiefly geometrical, many of them being developments and applications of the methods laid down in his great work, *Der Barycentrische Calcul* (Leipsic, 1827), which, as the name implies, is based upon the properties of the mean point or centre of mass. Any point in a plane (or in space) can be represented as the mean point of three (or four) fixed points by giving to these proper weights or coefficients,—an obvious principle which leads in the hands of Möbius to what no doubt is the chief novel feature of the work, a

system of homogeneous coordinates. Besides this, however, the work abounds in suggestions and foreshadowings of some of the most striking discoveries in more recent times—such, for example, as are contained in Grassmann's *Ausdehnungslehre* and Hamilton's *Quaternions*. He must be regarded as one of the leaders in the introduction of the powerful methods of modern geometry that have been developed so extensively of late by Von Standt, Cremona, and others.

MOCHÁ, a town of Yemen on the coast of the Red Sea, in E. long. 43° 20', N. lat. 13° 19'. The point of the coast where Mochá lies appears to have owed early importance to its good anchorage, for the Muza of the *Periplus* (*Geog. Gr. Min.*, i. 273 sqq.), a great seat of the Red Sea trade in antiquity, seems to be identical with the modern Múza' (Yáktú, iv. 680; Niebuhr, *Desc. de l'Arabie*, p. 195), a few miles inland from Mochá. Mochá itself is a modern town, which rose with the coffee trade into short-lived prosperity. The French expedition of 1709 found it a place of some 10,000 inhabitants, and its importance had increased half a century later, when Niebuhr visited it. The chief trade was then with British India. Lord Valencia in 1806 still found the town to present an imposing aspect, with its two castles, minarets, and lofty buildings; but the population had sunk to 5000. The internal disorders of Arabia and the efforts of Mohammed Ali to make the coffee trade again pass through India accelerated its fall, and the place is now a mere village. Mochá never produced coffee, and lies indeed in a quite sterile plain; the European name of Mochá coffee is derived from the shipment of coffee there. The patron saint, Sheikh Shadali, was, according to legend, the founder of the city and father of the coffee trade.

MOCKING-BIRD, or Mock-BIRD (as Charleton, Ray, and Catesby wrote its name), the *Mimus polyglottus* of modern ornithologists, and the well-known representative of an American group of birds usually placed among the THRUSHES (*q.v.*), *Turdidae*; though often regarded as forming a distinct section of that Family, differing by having the tarsus scutellate in front, while the typical Thrushes have it covered by a single horny plate. The Mocking-bird inhabits the greater part of the United States, being in the north only a summer-visitant; but, though breeding yearly in New England, is not common there, and migrates to the south in winter, passing that season in the Gulf States and Mexico. It appears to be less numerous on the western side of the Alleghanies, though found in suitable localities across the continent to the Pacific coast, but not farther northward than Wisconsin, and it is said to be common in Kansas. Audubon states that the Mocking-birds which are resident all the year round in Louisiana attack their travelled brethren on the return of the latter from the north in autumn. The names of the species, both English and scientific, have been bestowed from its capacity of successfully imitating the cry of many other birds, to say nothing of other sounds, in addition to uttering notes of its own which possess a varied range and liquid fulness of tone that are unequalled, according to its admirers, even by those of the NIGHTINGALE (*q.v.*). This opinion may perhaps be correct; but, from the nature of the case, a satisfactory judgment can scarcely be pronounced, since a comparison of the voice of the two songsters can only be made from memory, and that is of course affected by associations of ideas which would preclude a fair estimate. To hear either bird at its best it must be at liberty; and the bringing together of captive examples, unless it could be done with so many of each species as to ensure an honest trial, would be of little avail. Plain in plumage, being greyish-brown above and dull white below, while its quills are dingy black, variegated with white, there is little about the Mocking-bird's appear-

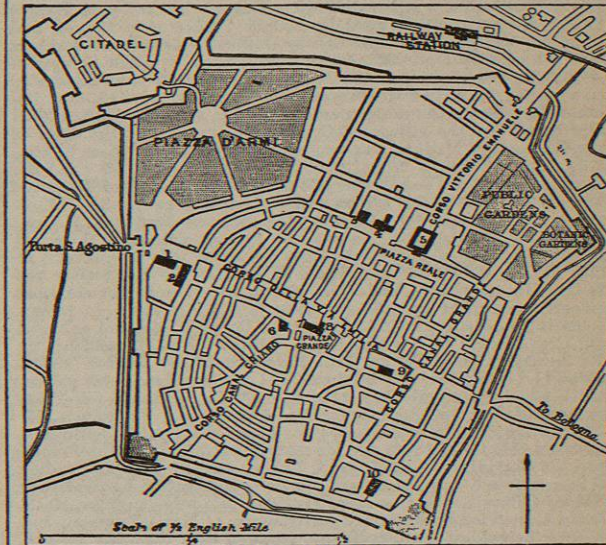
ance beyond its graceful form to recommend it; but the lively gesticulations it exhibits are very attractive, and therein its European rival in melody is far surpassed, for the cock-bird mounts aloft in rapid circling flight, and, alighting on a conspicuous perch, pours forth his ever-changing song to the delight of all listeners; while his actions in attendance on his mate are playfully demonstrative and equally interest the observer. The Mocking-bird is moreover of familiar habits, haunting the neighbourhood of houses, and is therefore a general favourite. The nest is placed with little regard to concealment, and is not distinguished by much care in its construction. The eggs, from three to six in number, are of a pale bluish-green, blotched and spotted with light yellowish-brown. They, as well as the young, are much sought after by snakes, but the parents are often successful in repelling these deadly enemies, and are always ready to wage war against any intruder on their precincts, be it man, cat, or hawk. Their food is various, consisting of berries, seeds, and insects.

Some twelve or fourteen other species of *Mimus* have been recognized, mostly from South America; but *M. orpheus* seems to be common to some of the Greater Antilles, and *M. hilli* is peculiar to Jamaica, while the Bahamas have a local race in *M. bahamensis*. The so-called Mountain Mocking-bird (*Oreoscoptes montanus*) is a form not very distant from *Mimus*; but, according to Mr. Ridgway, it inhabits exclusively the plains overgrown with *Artemisia* of the interior tableland of North America, and is not at all imitative in its notes, so that it is an instance of a misnomer. Of the various other genera allied to *Mimus*, those known in the United States as Thrashers, and belonging to the genus *Harporthynchus*—of which six or eight species are found in North America, and are very Thrush-like in their habits—must be mentioned; but there is only room here to dwell on the Cat-bird (*Galeoscoptes carolinensis*), which is nearly as accomplished an imitator of sounds as its more celebrated relative, with at the same time peculiar notes of its own, from one of which it has gained its popular name. The sooty-grey colour that, deepening into blackish-brown on the crown and quills, pervades the whole of its plumage—the lower tail-coverts, which are of a deep chestnut, excepted—renders it a conspicuous object; and though, for some reason or other, far from being a favourite, it is always willing when undisturbed to become intimate with men's abodes. It has a much wider range on the American continent than the Mocking-bird, and is one of the few species that are resident in Bermuda, while on more than one occasion it is said to have appeared in Europe.

The name Mocking-bird, or more frequently Mock-Nightingale, is in England occasionally given to some of the WARBLERS (*q.v.*), especially the Blackcap (*Sylvia atricapilla*), and the Sedge-bird (*Acrocephalus schoenobenus*). In India and Australia the same name is sometimes applied to other species. (A. N.)

MODENA, one of the principal cities of Northern Italy, formerly the capital of a duchy, and still the chief town of a province and the seat of an archbishop, is situated in the open country in the south side of the valley of the Po, between the Secchia to the west and the Panaro to the east. By rail it is 31 miles E.S.E. of Parma, 24 W.N.W. of Bologna, and 37 S. of Mantua. The observatory stands 135 feet above the level of the sea, in 44° 38' 52" N. lat. and 10° 55' 42" E. long. Dismantled since 1816, and now largely converted into promenades, the fortifications still give the city an irregular pentagonal contour, modified at the north-west corner by the addition of a citadel also pentagonal. Within this circuit there are various open areas—the spacious Piazza d'Armi in front of the citadel, the public gardens in the north-east of the city, the Piazza Grande in front of the cathedral, and the Piazza Reale to the south of the palace. The Æmilian Way crosses obliquely right through the heart of the city, from the Bologna Gate in the east to that of Sant' Agostino in the west. Commenced by the countess Matilda in 1099, after the designs of Lanfranc, and consecrated in 1184, the cathedral (St Geminian's) is a low but handsome building, with a lofty crypt, three eastern apses, and a façade still preserving some curious sculptures of the 12th and 15th centuries. The bell-tower, named La Ghirlandina from the bronze garland surrounding the weathercock, is lined with white marble,

and is 315 feet high; in the basement may be seen the wooden bucket captured by the Modenese from the Bolognese in the affray at Zappolino (1325), and rendered famous by Tassoni's *Secchia Rapita*. Of the other churches in Modena, San Pietro has terra-cottas by the local artist Begarelli, and S. Agostino (now S. Michele) contains the tomb of Sigonius and the tombstone of Muratori. The old ducal palace, begun by Duke Francis I. in 1635 from the designs of Avanzini, and finished by Francis Ferdinand V., is an extensive marble building, and now contains the library (*Bib. Palatina*, see vol. xiv. p. 530), picture-gallery, and museum. Many of the best pictures in the ducal collection were sold in the 18th century, and found their way to Dresden. The valuable *Museo Lapidario* in a building near Porta Sant' Agostino is well known to the



Plan of Modena.

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|--------------------------|-------------------------|---------------------------|
| 1. Museo Lapidario.      | 4. S. Domenico.         | 7. Cathedral.             |
| 2. S. Agostino.          | 5. Royal Palace.        | 8. Campanile Ghirlandina. |
| 3. Academy of Fine Arts. | 6. Archbishop's Palace. | 9. University.            |
|                          | 10. S. Pietro.          |                           |

classical antiquary through Cavedoni's *Dichiarazione degli antichi marmi Modenesi* (1828), and the supplements in the *Memoirs of the Academy*, vol. ix., &c. The university of Modena, originally founded in 1683 by Francis II., is mainly a medical and legal school, but has also a faculty of physical and mathematical science. It has about twenty-five professors, and from 200 to 250 students; a library of 20,000 volumes, an observatory, botanical gardens, an ethnographical museum, &c. The old academy of the *Dissonanti*, dating from 1684, was restored by Francis in 1814, and now forms the flourishing Royal Academy of Science and Art (*Memoirs* since 1833); and there are besides in the city an Italian Society of Science founded by Anton Mario Lorgna, an academy of fine arts, a military college (1859), an important agricultural college, and a lyceum and gymnasium, both named after Muratori. In industrial enterprise the Modenese show but little activity, silk and linen goods and iron-ware being almost the only products of any note. Commerce is stimulated by a good position in the railway system, and by a canal which opens a water-way by the Panaro and the Po to the Adriatic. The population of the city was 32,248 in 1861, and 30,854 in 1871; that of the commune 55,512 in 1861, and 58,058 in 1881.

The DUCHY OF MODENA, an independent sovereign state

(1452 to 1859), ultimately extended from the Po to the Mediterranean, and was bounded N. by Lombardy and the Papal States, E. by the Papal States and Tuscany, S. by Tuscany, Sardinia, and the Mediterranean, and W. by Sardinia and the duchy of Parma. Its greatest length, from Porto-Vecchio, on its northern frontier towards Mantua, to the outlet of the Parmigola torrent, on the Sardinian frontier, was 84½ miles; and its greatest width, from the pass of Calama, on the Papal and Tuscan frontier, to the right bank of the Enza, on the frontier of Parma, was 37 miles. The area was 2371 square miles, of which three-fifths were mountainous. In 1855 the population was 606,159. The duchy had six provinces—Modena, Reggio, Guastalla, Frignano, Garfagnana, Massa-Carrara.

Modena is the ancient Mutina, which was annexed by the Romans along with the rest of the territory of the Boii. In 183 a.c. Mutina became the seat of a Roman colony. During the civil wars Marcus Brutus held out within its walls against Pompeius in 78 a.c., and in 44 a.c. the place was defended by D. Brutus against M. Antony. The 4th century found Mutina in a state of decay; the ravages of Attila and the troubles of the Lombard period left it a ruined city in a westerly land. In the 8th century its exiles founded, at a distance of 4 miles to the north-west, a new city, Città Geminiana (still represented by the village of Citanora); but about the close of the 9th century Modena was restored and refortified by its bishop, Laedonius. When it began to build its cathedral (1099 A.D.) the city was part of the possessions of the countess Matilda of Tuscany; but when, in 1184, the edifice was consecrated by Lucius III., it was a free community. In the war between Frederick II. and Gregory IX. it sided with the emperor, though ultimately the papal party was strong enough to introduce confusion into its policy. In 1288 Obizzo d'Este was recognized as lord of the city; after the death of his successor, Azzo VIII (1308), it resumed its communal independence; but by 1336 the Este family was again in power. Constituted a duchy in 1452 in favour of Borso d'Este, and enlarged and strengthened by Hercules II., it became the ducal residence on the incorporation of Ferrara with the States of the Church (1598). Francis I. (1629-1658) erected the citadel and commenced the palace, which was largely embellished by Francis II. Rinaldo (ob. 1737) was twice driven from his city by French invasion. To Francis III. (1695-1780) the city was indebted for many of its public buildings. Hercules III. (1727-1803) saw his states transformed by the French into the Cispadine Republic, and, having refused the principality of Breisgau and Ortenau, offered him in compensation by the treaty of Campo Formio, died an exile at Treviso. His only daughter, Maria Beatrice, married Ferdinand of Austria (son of Maria Theresa), and in 1814 their eldest son, Ferdinand, received back the *Stati Estensi*. His rule was subservient to Austria, reactionary, and despotic. On the outbreak of the French Revolution of 1830, Francis IV. seemed for a time disposed to encourage the corresponding movement in Modena; but no sooner had the Austrian army put an end to the insurrection in Central Italy than he returned to his previous policy. Francis Ferdinand V., who succeeded in 1846, followed in the main his father's example. Obligated to leave the city in 1848, he was restored by the Austrians in 1849; ten years later, on 20th August 1859, the representatives of the Modenesi, under the direction of Carlo Farini, declared their territory part of the kingdom of Italy, and their decision was confirmed by the plebiscite of 1860.

Natives of Modena are Fallopius the anatomist, Tarquinia Molza, Sadoletius, Sigonius, Tassoni, and Cavedoni the archaeologist; the names of Zaccaria, Tiraboschi, and Muratori are associated with its library. Tiraboschi's *Bibliotheca Modenensis*, 6 vols., contains an account of all the literary personages of the duchy.

See Vedriani, *Storia di Modena*, 1698; Tiraboschi, *Mem. storiche modenese*, 1798; Scharfenberg, *Gesch. des Herzogth. Modena*, 1859; Orsini, *Modena descritta*, 1860; Barni, *Storia di Modena*; Valtrich, *Die. Storico*, &c., delle contrade di Modena, 1879-80; Cresswell, *Guida di Modena*, 1879; Galvani, *Mem. stor. intorno la vita di Francesco IV.*, 4 vols.

MODICA, a city of Italy, in the province of Syracuse in Sicily, 8 miles from the south coast, on the line of railway decreed in 1879 between Syracuse and Licata. It has increased its communal population from 30,547 in 1861 to 41,231 in 1881, and is a well-built and flourishing place. Of note among the public buildings are the old castle on the rock, the mediæval convent of the Franciscans, and the churches of S. Maria del Carmine (1150) and S. Maria di Betlem—this last containing ruins of the ancient temple destroyed by the earthquake of 1693. Modica is the point from which the remarkable prehistoric tomb and dwelling-caves of Val d'Ispica are usually visited. An early dependency of Syracuse. *Motya* or *Mutyca* was in Cicero's

days a fairly important municipium. In modern times it was held as a countship by the dukes of Alba. Placido Caraffa has written a prolix history of the city, which may be found in Grævius, *Thes. Ant. et Hist. Ital.*, vol. xii.

MOE, JØRGEN ENGBRETTSEN (1813-1882), Norwegian poet and comparative mythologist, was born at Hole in Sigdal, Ringerike, Norway, on 22d April 1813, and entered the university of Christiania as a theological student at the age of seventeen. After leaving the university in 1839 he acted as tutor in various schools and families, and in 1845 was appointed professor of theology in the Military School of Norway, which post he held until 1853, when he became resident chaplain in his native parish of Sigdal. In 1863 he received the living of Bragernes, Drammen; in 1870 that of Vest Aker, near Christiania; and in 1875 the bishopric of Christiansand, where he died on 27th March 1882.

Moe's first publication was a volume of Norse "songs, ballads, and staves," which appeared in 1840; it was followed in 1841 by the *Norske Folke-eventyr* (Norwegian Popular Tales), which he had collected along with his schoolfellow Asbjørnsen. The work excited such interest as a contribution to the study of comparative mythology that in 1847 he was sent by the Government through Thelemark and Setersdal to increase his collection of stories. The second (enlarged) edition, with a preface by Moe, appeared in 1852. In 1851 his *I Brønden og i Tyermet* (In the Well and in the Tarn), a delightful collection of prose stories for children, appeared, and it was followed in 1859 by a volume of poems entitled *En liden Julgave* (A Little Christmas Present). In 1877 he prepared a collected edition of his works in two volumes, the stories he had published along with Asbjørnsen being excluded. Many of the *Folke-eventyr* (Popular Tales from the Norse) were translated by Sir George Dasent in 1859.

MŒSIA (in Greek Mysia, or, to distinguish it from the country of the same name in Asia, Mysia in Europe), in ancient geography the territory immediately to the south of the Danube corresponding in the main to Servia and Bulgaria. It became a Roman province between 27 B.C. and 6 A.D., probably about 16 B.C.<sup>1</sup> In the time of Tiberius and Caius the province was under the same governor with Macedonia and Achaia. It was divided by Domitian into two provinces, Mœsia Superior (Servia) and Mœsia Inferior (Bulgaria); and the same emperor completed the great military road along the line of the Danube, increased the strength of the Roman forces in the country, and, by the conquest of Dacia, saved it from the inroads by which it had been harassed from the time of Tiberius. The Goths invaded Mœsia in 250 A.D., and at last, in 395, a number of them, afterwards known as Mœsogoths, obtained permission to settle in the province. The Slavonians and Bulgarians appear in the 7th century.

The boundary between Upper and Lower Mœsia was not marked, as Ptolemy (iii. 9, 10) states, by the river Cæbrus or Ciabrus (Cibritza or Zibru), but, as may be inferred from an inscription (6125, *C. Inscr. Lat.*, vol. iii. 2, *additamenta*), lay between Almus (Lom) and Ratiaria (Archer). Upper Mœsia, or, as it was often called, Mœsia Prima, contained—Singidunum (Belgrade), headquarters of Legio IV. Flavia, and in the 3d century a colonia; Viminacium (Kostolatz), headquarters of Leg. VII. Claud., and designated sometimes municipium *Ælium*, but more usually colonia (a rank bestowed on it by Gordianus); Bononia (Widin); Ratiaria, which, on the loss of Dacia, became the headquarters of Leg. XIII. gemina, and remained a large town till it was destroyed by Attila; Remesiana (Mustapha Pasha Palanka), which has furnished inscriptions belonging to the unidentified Ulpiana; and Naisus (Nissa, or Nish), the birthplace of Constantine the Great. Lower Mœsia (Mœsia Secunda) contained—Oescus (Colonia Ulpia, mod. Gigen), headquarters, after loss of Dacia, of Leg. V. Maced.; Nova (Sistova), at a late date a camp of Leg. I. Ital., and afterwards chief seat of Theodoric king of the Goths; Nicopolis ad Istrum (Nikup), really on the Iatrus or Yantra, a memorial of Trajan's victory over the Dacians; Prista (Rustehuk), Asamus (Nicopoli on the Osma), Darostorum (Silistria), Odessus (Varna), Tomi (Kustendje), Troesmis (Iglitza).

See Roessler, *Romanische Studien*, 1871; Pätzner, *Gesch. der Röm. Kaiserlegionen*, 1881, pp. 152-171; Hahn, in *Dtschr. K. Ak. der Wiss.*, Ph. H. Cl., Vienna, 1861, p. 228.

MOFFAT, a health resort of some note in Scotland, is situated in Upper Annandale, Dumfriesshire, occupying an

<sup>1</sup> See A. W. Zumpt, *Comentent. Epigraph.*, ii. 253 sqq.

agreeable position at the base of the Gallow Hill, 63 miles from Edinburgh, and 42 miles from Carlisle by railway. The Spa, which is 1½ miles above the town (525 feet above sea-level), is sulphureous with some saline ingredients, and is used in gout, rheumatism, and dyspepsia. Population (1881) 2161; in the season about 4000.

MOFFAT, ROBERT, D.D. (1795-1883), African missionary, was born at Ormiston, Haddingtonshire, Scotland, on 21st December 1795, of humble parentage. Moffat learned the craft of gardening, but in 1814 offered himself to the London Missionary Society, who, in 1816, sent him out to South Africa. After spending a year in Namaqua Land, with the powerful and dreaded chief Africamer, whom he converted, Moffat returned to Cape Town in 1819, and married Miss Mary Smith, a remarkable woman and most helpful wife. In 1820 Moffat and his wife left the Cape and proceeded to Griqua Town, and ultimately settled at Kuruman, among the Bechuana tribes lying to the west of the Vaal river. Here he worked as a missionary till 1870, when he reluctantly returned finally to his native land. He made frequent journeys into the neighbouring regions, as far north as the Matabele country, to the south of the Zambesi. The results of these journeys he communicated to the Royal Geographical Society (*Jou. R. G. S.*, xxv. xxviii, and *Proc.* ii.), and when in England in 1842 he published his well-known *Missionary Labours and Scenes in South Africa*. Single-handed he translated the whole of the Bible into Bechuana. While solicitous to turn the people to Christian belief and practice, Moffat was perhaps the first to take a broad view of the missionary function, and to realize the importance of inducing the savage to adopt the arts of civilization. He himself was builder, carpenter, smith, gardener, farmer, all in one, and by precept and example he succeeded in turning a horde of bloodthirsty savages into a "people appreciating and cultivating the arts and habits of civilized life, with a written language of their own." Now we find more or less Christianized communities extending from Kuruman to near the Zambesi. Moffat met with incredible discouragement and dangers at first, which he overcame by his strong faith, determination, and genial humour. It was largely due to him that the work of Livingstone, his son-in-law, took the direction which it did. On his return to England, Moffat received a testimonial of about £6000. He died at Leigh, near Tunbridge Wells, 9th Aug. 1883.

See *Scenes and Services in South Africa, the Story of Moffat's Missionary Labours*, London, 1876; and publications of the London Missionary and the B. and F. Bible Societies.

MOGADOR, or SUERAH (Berber *Tasurt*), the most southern seaport town on the Atlantic coast of Morocco, and the capital of the province of Haha, stands from 10 to 20 feet above high water on a projecting ridge of calcareous sandstone in 31° 30' N. lat. and 10° 44' W. long. In certain states of wind and sea it is turned almost into an island, and a sea-wall protects the road to Saffi. The streets are regular and, for a Moorish town, broad and clean. Within the walls there are three distinct divisions: the citadels old and new with the government buildings; to the north-west the outer town with its spacious markets in the centre; and at the north-west corner the Mellah, or Jews' quarter. In the citadels the houses are fairly good, and considerable attention is paid to sanitary matters. Water is brought from the Kseb, about 1½ miles to the south, by an aqueduct. The prosperity of Mogador is due to its commerce; only a few gardens break the barrenness of the immediate vicinity. The harbour or roadstead, though apparently protected by the island and quarantine station of Mogador, is extremely dangerous during west and south-west winds. Trade is carried on mainly with Marseilles, London, Gibraltar, and the Canaries,—the prin-

cipal exports being almonds, goat-skins, gums, olive oil, and ostrich feathers, and the principal imports cotton goods (half of the total) and tea. The average value of the exports for the five years 1877-1881 was about £210,000, the imports rather less. Attention has been frequently directed to the value of Mogador as a health resort, especially for consumptive patients. The climate is remarkably steady: mean temperature of the hottest month 71.06, of coldest month 58.69. The annual rainfall is only 10 or 12 inches, and the rainy days of winter and spring about 28. The sirocco is but rarely felt. The population is about 15,000 (7000 Jews, about 150 foreigners). Jews, Protestants, and Roman Catholics have religious edifices in the town.

A place called Mogador is marked in the 1351 Portulan of the Laurentian Library, and the map in Hondius's *Atlas Minor* shows the island of Mogador *I. Domegador*; but the origin of the present town is much more recent. Mogador was founded by Sultan Mohammed, and completed in 1770. The town received from the Moors the name of Suerah (little picture), while the Portuguese called it after the shrine of Sidi Mogadul, which lies towards the south half-way to the village of Diabat, and forms a striking landmark for seamen. In 1844 the citadel was bombarded by the French.

MOGHILEFF, a north-western government or province of the Russian empire, situated on the upper Dnieper between the provinces of Vitebsk and Smolensk on the north and east, Tchernigoff and Minsk on the south and west. In the north it is occupied by the watershed which separates the basins of the Dwina and the Dnieper, an undulating tract from 650 to 900 feet above the sea-level, and covered nearly everywhere with forests. This watershed slopes gently to the south, that is, to the valley of the Dnieper, which enters the province from the north-east and flows west and afterwards due south. The southern part of the province is flat and has much in common with the Polyesie of the province of Minsk; it is, however, more habitable, the marshes being less extensive.

The province is covered by the Tertiary formation; Devonian sandstone appears in the north, and Carboniferous limestones in the east. The soil is mostly sand, clay (brick-clay and potter's-clay are not uncommon), and peat-bogs, with a few patches of "black-earth." The climate is rude and wet, the average yearly temperature at the Jorki meteorological observatory being 40.4 Fahr. (14.2 in January, and 63.8 in July); cold nights in summer are often the cause of bad crops. The province has about 1,140,000 inhabitants (947,625 in 1870), mostly White-Russians (78 per cent.), belonging to the Greek Church; Jews are numerous (16 per cent.); Poles, belonging mostly to the nobility, make only 3 per cent. of the population. Agriculture is the chief occupation; nearly one half (46 per cent.) of the surface of the province is under crop; but, except after unusually good harvests, corn is imported, chiefly by the navigable channels of the Dnieper and Sozh. There are many distilleries on the estates of landowners, and wine-spirit is exported. The hemp culture is important; hemp and hemp-seed oil are exported to Riga. The province has one large paper-mill, a few iron and copper works, and minor manufactures.

The province of Moghileff is divided into eleven districts, with the chief towns: Moghileff (46,500 inhabitants), Chausy (4200), Tcherikoff (3900), Gomel (13,030), Gorki, formerly the seat of an agricultural institute (5050), Klimovichi (4000), Mstislavl (6700), Orsha (5350), Rogacheff (7750), Staryi Bykhoff (5200), and Syenno (2550). Of about 80 other municipal towns, we name Shkloff (13,000 inhabitants), Dubrovka (7000), Kricheff (4000).

This province was inhabited in the 10th century by the Krivichi and Radimichi. In the 14th century it became part of Lithuania and afterwards of Poland. Russia annexed it in 1772.

MOGHILEFF ON THE DNEIPEP, a town of Russia, capital of the province of same name. It is situated on both banks of the Dnieper, 40 miles south of the Orsha station of the railway between Moscow and Warsaw. A railway along the Dnieper will soon bring Moghileff into railway communication with these capitals.

Moghileff is mentioned for the first time in the 14th century as a dependency of the Vitebsk, or of the Mstislavl principality. At the beginning of the 15th century it became the personal property of the Polish kings. But it was continually plundered—either by Russians, who attacked it six times during the 16th century, or by Cossacks, who plundered it three times. In the 17th century its inhabitants who belonged to the Greek Church suffered much from the persecutions of the Union. In 1684

It surrendered to Russia, but in 1661 the Russian garrison was massacred by the inhabitants. In the 18th century it was taken several times by Russians and by Swedes, and in 1708 Peter I. ordered it to be destroyed by fire. It was annexed to Russia in 1772. Of 40,500 inhabitants two-thirds are Jews and the remainder White-Russians, with a few Poles (2500). Its manufactures are without importance; but one branch of trade, namely, the preparation of skins, has maintained itself for many centuries. The commerce is mostly in the hands of Jews: corn, salt, sugar, and fish are brought from the south, whilst skins and manufactured ware imported from Germany (partly by smugglers) are sent to the southern provinces.

**MOGHILEFF ON THE DNIESTER** (*Mohilov*), a district town of Russia, situated in the province of Podolia, on the left bank of the Dniester, 87 miles east-south-east of Kamenets-Podolsk, and 43 miles from the Zhmerinka railway junction. It has 18,200 inhabitants, nearly one-half of whom are Jews; the remainder are Little Russians, Poles (1500), and a few Armenians. The Little-Russian inhabitants of Moghileff carry on agriculture, gardening, wine, and mulberry culture. The Jews and Armenians are engaged in a brisk trade with Odessa, to which they send corn, wine, spirits, and timber, floated down from Galicia, as well as with the interior, to which they send manufactured wares imported from Austria.

Moghileff, named in honour of the Moldavian hospodar Mohila, was founded by Count Potocki about the end of the 16th century. Owing to its situation on the highway from Moldavia to the Ukraine, at the passage across the Dnieper, it developed rapidly. For more than 150 years it was disputed by the Cossacks, the Poles, and the Turks. It remained in the hands of the Poles, and was annexed to Russia in 1795. The Crown purchased it from Count Potocki in 1806.

**MOGILAS, PETRUS** (c. 1600-1647), metropolitan of Kieff from 1632, belonged to a noble Wallachian family, and was born about the year 1600. He studied for some time at the university of Paris, and first became a monk in 1625. He was the author of a *Catechism* (Kieff, 1645) and other minor works, but is principally celebrated for the *Orthodox Confession*, drawn up at his instance by the abbot Kossowski of Kieff, approved at a provincial synod in 1640, and accepted by the patriarchs of Constantinople, Jerusalem, Alexandria, and Antioch in 1642-3, and by the synod of Jerusalem in 1672. See **GREEK CHURCH**, vol. xi. p. 158.

There are numerous editions of the *Confession in Russian*; it has been edited in Greek and Latin by Panagiotis (Amsterdam, 1662), by Hofmann (Leipzig, 1695), and by Kimmel (Jena, 1843), and there is a German translation by Frisch (Frankfort, 1727).

**MOGUL**, or **MUGHAL**, *مغول*, the Arabic and Persian form of the word Mongol, usually applied to the Mongol empire in India. See **INDIA**, vol. xii. p. 793 *seq.*

**MOHÁCS**, a market town in the Trans-Danubian county of Baranya, Hungary, stands on the right bank of the west arm of the Danube, 25 miles east-south-east of Pécs (Fünfkirchen), with which it is connected by railway, 45° 58' N. lat., 18° 37' E. long. At Mohács there are several churches and schools belonging both to the Roman Catholics and the Calvinists, also the summer palace of the bishop of Pécs, a monastery, an old castle, and a station for steamers plying on the Danube, by which means a considerable commerce in wine and the agricultural produce of the neighbourhood is carried on with Budapest and Vienna. Not far from Mohács are coal mines, and the town is an important coal depôt of the Danubian Steam Navigation Company. The population in 1880 was 12,047 (Magyars, Serbs, and Germans).

Two great battles fought in the vicinity of the town mark the commencement and close of the Turkish dominion in Hungary. In the first, 29th August 1526, the Hungarian army under Louis II. was annihilated by the Ottoman forces led by Soliman the Magnificent (see vol. xii. p. 369). In the second, 12th August 1687, the Austrians under Charles of Lorraine gained a great and decisive victory over the Turks, whose power was afterwards still further broken by Prince Eugene of Savoy.

**MOHAIR** is the woolly hair of a variety of the common or domestic goat inhabiting the regions of Asiatic Turkey, of which Angora is the centre, whence the animal is known as the Angora Goat (see **GOAT**, vol. x. p. 708). Goat's hair has been known and used as a textile material in the East from the most remote periods; but neither the Angora goat nor its wool was known in Western Europe till, in 1655, the animal was described by the naturalist Tournefort. That textures of mohair were in use in England early in the 18th century is obvious from Pope's allusion:—

“And, when she sees her friend in deep despair,  
Observes how much a chintz exceeds mohair.”

Owing, however, to the jealous restrictions of the Turkish power, it was not till 1820 that mohair became a regular article of import into the United Kingdom. In that year a few bales came into the market; but so little was the material appreciated that it only realized 10d. per lb. In 1870 average mohair fleece was selling at five times that price. From the small beginning of 1820 the imports gradually waxed, and the trade received a very considerable impetus through the introduction in 1836, by Titus Salt, of the analogous fibre alpaca. The increasing demand for and value of mohair early stimulated endeavours to acclimatize the Angora goat in other regions; but all European attempts have failed, owing to humid and ungenial climates. In 1849 a flock was taken by Dr J. P. Davis to the United States of America, and since that time many fresh drafts have been obtained and distributed to Virginia and various Southern States, and to California and Oregon in the west. In these high and dry regions the goats thrive; and the flocks in the Western States now number many thousands. The Angora goat has also been introduced into the Cape of Good Hope with much success. The first importation of mohair from the Cape, made in 1862, amounted to 1036 lb; and now about one-tenth of the total British supply is received from that source. Mohair has also been received in England from goats reared successfully in Fiji, where they were first introduced in 1874, and there are also thriving flocks in Australia.

The trade in mohair between Asia Minor and western Europe is controlled in Constantinople. There upwards of twenty varieties of fleeces are distinguished according to the localities of their production, the richest and most lustrous qualities being produced in hilly and forest regions, while the fleeces from the open plains are comparatively kempy, coarse, and cottony. From the Lake Van district on the eastern borders of Asiatic Turkey a distinct and inferior variety of wool is obtained. It is known in commerce as Van mohair, and consists, to the extent of about 70 per cent., of white wool slightly streaked with black, with 30 per cent. of coloured red and black wool. At Konieh in the south, also, an inferior mohair known as Pelotons is produced, 80 per cent. of which is black and red, and the remainder white. The average weight of an Angora goat fleece is from 5 to 6 lb. The finest quality of wool is obtained from the first clip, which is made in the second year of the animal. She-goats yield the best wool, after which come wethers, while the rams give the coarsest fleeces. Angora mohair is a brilliant white lustrous fibre, elastic and wiry in character, and devoid of felting properties. It attains the length of four or five inches, but the long fibre is mixed with an undergrowth of shorter wool, which in the spinning process is combed out as ‘noils’ for separate use. It is a material of enormous durability, and, owing to its remarkable elasticity, it is especially fitted for working into long piled fabrics, such as plush and imitation furs, or for use in braids and bindings, and in boot and other laces. It is largely used for making Utrecht velvet or furniture plush for the upholstering of railway carriages, &c., a trade centred at Amiens. In the making of imitation seal-skins, and imitation beaver, otter, chinchilla, and other furs, and for carriage rugs generally, mohair is extensively employed. Many dress fabrics of mixed mohair and alpaca, cotton, or silk are also manufactured; but with changes in fashion such materials are constantly changing in style, composition, and name. Mohair is also used for making certain qualities of lace, and an imitation of ostrich feathers for use as trimming has been made from the fibre. The imports of mohair into the United Kingdom during 1882 amounted to 16,859,771 lb, valued at £1,433,584, a quantity largely in excess of the imports of any previous year.