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TURKEY IN EUROPE.

ASTRONOMICAL POSITION.—Between 39° and $48^{\circ} 15'$ N. latitude, and 16° and 30° E. longitude.

DIMENSIONS.—Turkey, in its present restricted limits, exclusive of Greece and the adjacent Islands, but embracing the tributary principalities of Moldavia, Wallachia, and Servia, extends from E. to W. in its greatest length about 700 miles, from the western border of Croatia to the Channel of Constantinople, or the mouths of the Danube; and from N. to S. in its greatest breadth, about 650 miles, from the northern frontier of Greece to the N. E. frontier of Moldavia, including an area of nearly 180,000 square English miles.

BOUNDARIES.—*Northern*:—The Military Borders of Croatia, Slavonia, Hungary, Transylvania, the Buckowine, and Bessarabia. *Southern*:—The Archipelago, and the northern frontier of the Kingdom of Greece. *Eastern*:—The Black Sea, Channel of Constantinople, Sea of Marmora, and the Dardanelles. *Western*:—The Ionian Sea, Channel of Otranto, Adriatic, and the Austrian provinces of Dalmatia and Croatia.

GENERAL ASPECT.—The greater part of Turkey is occupied by a series of lofty mountain ranges, which form and inclose high valleys and table lands, leaving only in some places a narrow border of lowland along the sea coasts. Such is its general character between the Danube and the frontier of Greece; but to the north of the great river, the country sinks into a plain which stretches north-eastward to the frontiers of Russia and the Carpathians, and includes the principalities of Wallachia and Moldavia. According to Dr. Boué, even the best maps are erroneous and defective; containing not only false names, but wrong places, and erroneous positions. Hills, and even large rivers, are entirely omitted; while the hills marked in many parts are merely imaginary representations. All maps exhibit a great central chain, extending from the north-west, in an easterly direction to the Black Sea, supposed to be a continuation of the Alps, or, at least, to be connected with them by the hilly region at the north-eastern corner of the Gulf of Venice. But, in reality, the Balkans, from Sophia to the Black Sea, are only a range of moderate heights; the central part of the chain may be crossed anywhere in a day, and in some places even in a few hours. Indeed, the site of these pretended lofty mountains is, in some places, occupied by molasse hills.

GEOLOGY.—The central nucleus of Turkey consists of a high undulating country or plateau, extending from east to west between Sophia and Pristina, and forming the upper part of the basin of the Morava. To the northward of this plateau the limits of Servia are defined from E. to W. by the *Jastrebez* (chain of the Sparrow-hawks), the *Ploca*, and the *Kopaonik*. The first chain is covered only with oaks, and higher up with elms, like the hills in middle Servia, but the two latter have fir trees near their summits. The greatest elevation of the chain appears to exceed 5500 feet. The *Jastrebez* is a mass of crystalline slaty rocks, the others consist of transition slates, with syenite, diallage rock, serpentine and metalliferous deposits. Southward of the plateau is a pretty large group of hills, named the *Kurbetska-planina*, probably the *Orbelus* of the ancients, which have an absolute elevation of between 4000 and 5000 feet. To the west and east of this group are low chains clothed with oaks, and forming the northern frontier of Macedonia from Uskub to Dubnicza and Sophia. These hills are chiefly composed of talcose or micaceous slates, and scarcely reach an elevation of more than 3000 feet; they are still lower in some places to the west of Kostendil (Ghiustendil), where they partly consist of transition limestone, and even of tertiary molasse. The *Orbelus* itself is a massive mountain of granitic rocks blended with gneiss; and in its vicinity are found trachytes, which are connected with those of Karatova. Trachyte also extends along the low central chain, from Strazin in Macedonia to the vicinity of Vranja, south of the Morava. A sulphureous hot spring issues forth at the northern extremity of these hills.

On the eastern border of the central plateau, south of Nizza, are situate the lofty *Stari-planina* (Old Mountain), and *Suro-planina* (Dry Mountain), limestone ridges, occurring next to the mica slates of Baditschka-Gora. A very extensive group of mica slate and talc-slate hills rises more to the south, between the Morava valley and those of Irn and Sukova. On the north-eastern base of this group are found trachytes and trachyte conglomerates; but on the very steep southern declivity porphyry dykes occur in the slates; while the tops of some of the hills are composed of trachyte, and a white trachyte aggregate. Here, as in the Servian hills, elms cover the low flats, oaks the sides, and pasture the summits, the chief of which is the broad *Sneepol* (Snowfield.) The last mountain is a little higher than the *Stari-planina*, and attains an elevation of nearly 4350 feet. The *Sneepol* is united by the ridges above the village of Klisura (defile) to the *Kurbetska-planina*, and the hills of *Egri-palanka*. The talc slates of which these ridges are formed, are often decomposed, and contain microscopic crystals of magnetic iron ore, which is washed and smelted in many places. These hills completely separate the upper valley of the Morava from that of Irn, whose stream flows into the Sukova and Nissava. To the south-east of this group are lower ridges composed of limestone and newer transition slate, or Silurian rocks, with numerous defiles or reuts running nearly N.-S. These hills extend to the great valley which leads from Nizza to Sophia, and which is excavated, particularly towards the east, in a conchiferous limestone, probably belonging to the Jura formation. All the above-mentioned chains are inhabited by a pretty dense population of industrious Bulgarians.

To the west of the central plateau lies the *Pristina*, or *Kostova Plain*, surrounded by low hills, which rise only 800 or 1000 feet above it, whilst its own absolute height is 1400 feet. The hills are chiefly composed of talc or mica slate, with some serpentines and amygdaloidal limestones; and are covered with forests, chiefly of oak. The central plateau itself is occupied by hills a little higher than those last mentioned, and contains valleys or basins formed by the rivers Morava and Toplitza, and their defiles. The valleys are covered with villages, and cultivation extends far up among the hills. The Morava valley is composed of tertiary beds of an argillaceous or sandy nature, as near Nizza and Laskovacz; alluvial beds occur higher up in the Vranja basin. Some trachytic eruptions have taken place to the south-east of Laskovacz, and siliceous limestone, probably of fresh water origin, occurs to the north-east, near Sheshiné, at the foot of the hills to the east of the Morava. Between Radomir (at an elevation of 1614 feet, on the eastern side of the Strymon), Breznick, and Sophia, is a long plateau, nine miles broad, and composed of tertiary augite porphyry. To the south rises the mountain *Wistoska*, or *Wistosh*, with its limestones, slaty and granitic rocks, argentiferous ores, and abundant springs; its height may be estimated to exceed 4000 feet. To the west it overtops the bare hilly country round Radomir, and to the east the beautiful plain of Sophia, which has an elevation of only 1348 feet.

The ranges to the south of the central plateau are united geographically to the *Despoto-dagh* or *Rhodopé*, and *Balkan* or *Hemus*, by means of the *Wistoska*, together with some granitic and syenitic hills, at the base of the *Rhodopé*, and three or four low ridges running obliquely from Barja to Ich-timan. These last are composed of mica slate, gneiss, and granite, with some granular limestones, and have an elevation from 2000 to 2356 feet. At the base of the *Despoto-dagh* they are crossed by the *Kiz-der-bend* (Girl's defile), running W.-E., and composed at its narrowest part of granular limestone. The road from Tartar Basardschik to Barja is carried along it; but this must not be confounded with another defile of the same name to the south-west, between Rasluk and Neurokop. The passage of this deep defile occupies nine hours, and all around it appears a chaos. At Somakov the alluvial soil is full of microscopic particles of magnetic iron ore; for the smelting of which there are several foundries, and the Pasha of Sophia has built one after an English plan. The *Despoto-dagh* or *Rhodopé* does not extend to the Dardanelles, as all maps indicate; its highest summits are situate towards the west, to the south of Barja, Samakov, and Dubnicza, and reach an elevation of 8000 feet, or probably still higher. There it is called by the Servians *Rilo-planina*, and by the Turks *Rilo-dagh*; towards the east it takes the names of its great valleys. The chain gradually diminishes in height from west to east, and terminates rather abruptly about five leagues from the Maritza, and six leagues S.W. of Adrianople. The declivities on the northern side are generally steep. Pine trees occur highest up among the hills, next to them are elms, and lower down oak forests. A number of rents running N.-S., form deep valleys, adorned with monasteries, villages, and cottages, and serving as the passes by which the chain is crossed. The chain is composed of crystalline slates, gneiss, granite, and granular limestone, of which some isolated portions are also found in the northern tertiary basin; and at Philippopolis sienite forms four small hillocks in the town, or close to it. From the Archipelago to beyond Kara-bunar (south of Dimotika), is a long strip, running S.-N., of trachyte and trachyte conglomerate. On the northern base of the *Rhodopé* hornblende trachytes are found in some parts of the Semidsche valley; the trachytic country is partly a stony barren soil, and partly covered with low trees of the *paliurus aculeatus*. It is fertile only where the conglomerates are in connexion with the tertiary argillaceous-calcareous beds. South of Adrianople, between the Maritza and the Dardanelles, are the low ridges and plateaux of the *Tekir-dagh*, in which molasse is associated with clay, and a sand which occasionally contains shells, with numerous fragments of silicified coniferous wood. Coralline and shelly limestones are found on the sands of Malgara, and particularly on the western banks of the Maritza, near the trachytic zone round Fered. The greatest elevation of the *Tekir-dagh* may be nearly 900 feet. To the south-east of Aimadtschik, is a somewhat higher ridge, which, near the Sea of Marmora, is probably 300 or 400 feet higher than the *Tekir*.

The *Balkan* or *Hemus* extends from Sophia to Eminéh-burun, on the Black Sea; the western part being called *Veliki-balkan* (or Great Range), and the eastern *Malo-balkan* (or Little Range.) It is a much lower chain than the *Despoto-dagh*; the southern slopes are generally very steep; but on the northern side it is only the highest ridge which is much inclined. The *Balkan* is almost destitute of subordinate chains towards the south, and is composed of the principal high ridge, and a series of parallel low ranges, which diminish in height towards the Danube. Among these are long valleys extending east and west, and occasionally rents intersect the ridges from north to south, and are occupied, as in the Alps, by the great rivers which issue from the long valleys. The western portion of the chain, *Kodja-Balkan*, at the source of the Osma, probably reaches an elevation of more than 4000 feet; but near the sea the summits are only from 1800 to 2000 feet above its level. There is an oblique and pretty high ridge to the west of Czatac and Bashkoe, which separates the waters of the Bebrova from those of the Akali-Komtschik. The high *Balkan* is composed of crystalline slaty rocks, gneiss, mica-slate, talc, and clay slate. Above Islivné (*Schimno* of maps), near the middle of the *Balkan*, are some very picturesque hills of quartziferous porphyry; and among these the peaks of the *Tachatal-dagh* (rent hill), rise to the height of 2800 feet, and afford a most beautiful view of Roumelia. Immediately above these older rocks of the *Balkan* is a thick formation of green sand, composed of marly greyish sandstone, quartzose and greenish-coloured sandstones, and beds of marly clay, and whitish, greyish, or black compact limestone, which forms thick beds, and occasionally craggy precipices; but the other rocks, except the green sandstones, form only hills, which are generally either covered with oaks and elms, or, being destitute of trees, are used as pasture grounds. At the east end of the *Balkan* the green sand is covered with extensive plateaux of chalk, with flints and belemnites. Between the *Balkan* and the Danube, Bulgaria is covered by a great tertiary formation, which becomes broader as we proceed from east to west. The Danube flows past a series of small hills on the Bulgarian side; but on the northern or Wallachian side, the country is flat. The isthmus between Rassoava and Kostendtsche, on the Black Sea, is occupied by alluvial matter, and some low tertiary hills; and the Danube can never have had its channel there in historical times. South of the *Balkan* there exists only one subordinate chain, at some distance, consisting of low hills of transition slate and limestone, extending between Kalofer (Caloper), Eski-Sagra, and a place west of Islivné, where the Tondja issues through a defile from its upper alluvial basin. This basin is the plain which extends between Tschipka, Kezanlik, and Czirkua, and it is on it that roses are cultivated for making attar.

From Islivné to Burgas, on the Black Sea, there is an extensive hollow at the base of the *Balkan*. The remainder of the chain bounds the vast tertiary gulf whose surface forms the present soil of a great part of eastern Roumelia or Thrace. The southern base is remarkable for the exuberance of its vegetation, consisting of gardens of roses, jasmine, and wild lilac, vineyards and forests of all kinds of fruit trees, but without the olive-tree, the anis, or the lepleb. The adjacent plain, however, is destitute of trees, and consists chiefly of fields under cultivation, and pasture grounds, which are partly marshy, with a black soil. This alluvial and tertiary plain extends to the chain which runs along the Black Sea, the Sea of Marmora, and the Archipelago. In the plain north of Adrianople small groups of isolated hills composed of trachyte are occasionally met with; and in the north-eastern portion of the basin is a very extensive undulating plateau formed of augite pophyry, and extending from the foot of the *Balkan*, north of Aidos, to the gulf of Burgas and Karabunar on the Curu. In

the wild and wooded country between Aldos and Burgas is a hot sulphureous spring. The chain which extends along the south-western shore of the Black Sea is not in immediate connection with the Balkan; but, speaking geographically, is only a continuation of the chain at Eski Sagra. On approaching the Bosphorus the shore chain is divided into a number of small hills which rise on low-lying plateaux. Near Seraï are clay slates, which extend to the Bosphorus, and alternate with grey-wacke and silurian shell limestone. To the north of Buyukdereh is a small trachytic district.

To the west of the central plateau of Mœsia is Upper Albania, a country occupied to the east and south-east by the lofty *Tschar*, and to the south by its prolongation, consisting of the high ridges interposed between the wild primary valley of the Debres and the plain of Bitoglia and Perlepe, with the valley of Kalkandel, called Tetovo in the Bulgarian tongue. They are in some places more than 8000 feet high, and occasionally capped with snow during summer. The ridges consist of immense masses of crystalline slates, which, in the *Tschar*, become talcose or argillaceous, and contain whole hills of compact or semigranular limestone. To the west of these ridges, and rising to the average height of 6000 or 7000 feet, are the primary mountains of *Elbessan*, through which passes the only military road from Roumelia or Monastir to Skutari. It is carried through Ochri, where the vineyards indicate that the elevation of the lake of Ochrida is under 2000 feet. Further south extends the primary *Pindus*, with parallel limestone ridges like those of the *Tschar*. To the north of these chains there have been immense eruptions of diorite, compact enphotide, and serpentine; and among these are found all the compact, lamellar, syenitic, decomposed, and earthy varieties of the ophite of the Pyrenees. Diabase rock occurs rarely, but forms some magnificent masses and small hills in this deposit round the torrent of Rape, 30 miles east of Skutari. These dioritic hills are connected geographically with the high calcareous ridges of the lower Drin, which are only the extremities of the very high similar chains between Ipek or Scherkoles and the country of Montenegro. Their greyish white summits covered with eternal snow, except towards the east, and their numerous rents, recall to mind the secondary calcareous chains of the Alps. Around the lake of Plava, near Gusinio, above Plava, and a little to the eastward, their elevation probably exceeds 8000 feet. Their lower declivities are covered with villages; for the Albanians, like the inhabitants of Montenegro, seek liberty and exemption from taxes in the wildest abodes. These serrated ridges are connected with the *Kom* and *Dormitor*, two high chains to the east and west of Drobniak, and also with the *Lubitschnia*; all of which are limestone hills capped with snow. Further north, these chains are united to those east of *Glubigne*, between Mostar and Novaschin in Herzegowina. The cretaceous formation occurs in the upper tertiary basin of the White Drin. The inferior chalk is found on the coasts of Albania, where it occurs in the form of singularly-shaped hills of limestone. It is also distributed over Dalmatia and part of Herzegowina, forms numerous high hills round the bay of Cattaro, and extends to Montenegro, where its rocks are so numerous as materially to impede the cultivation of the country. The cretaceous system forms all the hills round Skutari, the lake of which contains some rocky islands of limestone. To the east of Alessio the same limestone forms conical hills, which, more to the south, extend, east of Durazzo, to Berat. The *Acroceranian* or *Chimerian* chain belongs to the same formation, which probably crosses over to the Ionian islands, and stretches along the coast to Prevesa. These mountains exhibit frequent examples of natural fires; and large springs, issuing like rivers from the rock, are found as in the older limestone districts. *Pindus*, in its progress southward, sends off several divergent branches eastward, two of which inclose the plain of Thesaly, terminating at the Channel of Trikir, where they are separated by the gulf of Volo. They contain several very lofty summits. (See *anté*, p. 152.)

Bosnia is an extensive plateau, inclined from south to north, and presenting to the Albanian plain of Ipek and the hills of Myrdita a limestone wall from 6000 to 7000 feet high. To the west it is bounded in a similar manner by the snowy chain, east of Mostar and the *Kom*, west of Kolaschin and east of Drobniak. Towards Servia, the plateau also descends very abruptly, especially to the north-east. In the highest and most southerly part of the plateau are many miles of level ground; but the rest of the country is furrowed by ridges of hills, which diminish in height towards the north, and running S.E.-N.W., so as to form a slightly inclined plane as far as the Save. *Bosnia* is entirely composed of the transition formation, particularly of the older and medial divisions, intersected here and there by igneous rocks. It produces in some places gold and silver; and rich iron mines are found at Mailan and other places. The chief foundries are at Bosna Serai. *Bosnia* is a cold country, and its hills are covered with firs, pine-trees, and birches. The plants chiefly cultivated are barley, oats, rye, potatoes, hemp, flax, and plum-trees for making brandy. It is only connected with Turkey by the broken part of its high walls above Novibazar and Ipek, and with Skutari and Maritime Albania by high mountain passes, rendered dangerous by snow and precipices.—(Dr. A. Boue. *Edin. New Phil. Journal*, XXXf. 173.)

GULFS, BAYS, STRAITS.—The BLACK SEA (*Kara-dengiz* of the Turks, *Tcheriago-moré* of the Russians, *Pontus Euxinus*, or simply *Pontus*, of the Latins), is situate between 40° 50', and 46° 45' N. lat., and 27° 25', and 40° 48' E. long, being bounded on the N.W. and N. by the Russian governments of Bessarabia, Kherson, and Taurida; on the N.E. by the Caucasian countries of Circassia, Abkhassia, and Mingrelia; on the E. and S.E. by Imeritia, Grusia, and Armenia; S. by Asia-minor; W. by Roumelia and Bulgaria. Its extreme length, E.-W., is about 690 miles, and its greatest breadth, N.-S. 380; but its width is variable; the superficial area is about 160,000 square miles, and the extent of its coasts exceeds 2000. It is very compact in form, giving off few or no large branches, though small bays and harbours occur at short distances all round. The depth is variable; but the variations appear to be very regular: at the entrance of the Thracian Bosphorus, 48 fathoms are found; an equal or greater depth is preserved along the west shore, at a little distance from the land, as far as the mouths of the Danube, where it becomes shallower; but in the main sea, between the Bosphorus and the Crimea, no bottom is found with 100, 120, and 160 fathoms. The south coast, from the Bosphorus to Sinub, is deep; and thence to the east coast, it may be navigated by vessels of any size. There are no tides, but the currents are marked, strong, and regular, with a general direction towards the Bosphorus of Thrace, through which the Black Sea pours its surplus waters. The water is by some voyagers said to be only brackish, and this may be the case near the mouths of the rivers; but by others it is said to be only one-seventh part less salt than the Atlantic, and fully one-tenth saltier than the Baltic. To account for this saltiness, with such a continual supply of fresh water as it receives from numerous large rivers, and so constant an outflow as it sends through the Bosphorus, it has been imagined that an under current from the Archipelago flows upwards through the Straits, and communicates its saltness to the waters of the Euxine. It may, however, be also accounted for by the great abundance of salt which is found in the country, to the north and north-east, and which probably finds its way to the sea. The navigation of this sea is unobstructed; there is deep water almost throughout, with only one small island, near the mouth of the Danube, and two rocks off shore in the Crimea. The smallest gale, however, raises a short and troublesome sea; but it is noway dangerous; storms, which are not more frequent than in other seas, are seldom of long duration; and even in the worst there is no want of sea-room. The largest ships may sail close to the shore; the anchorages are good, and many of its harbours are excellent. The prevailing wind is from the north-east, and as it blows over a great extent of cold and swampy country, it is not only piercingly cold, but is also loaded with moisture, occasioning thick fogs, and in winter storms of snow. Towards the middle of summer, northerly winds generally prevail, and are succeeded very late

In the year by breezes from the south, which again appear in January, February, and March. The climate is subject to great extremes; and the average of temperature is lower than might be supposed from the latitude. The northern gulfs and straits are in some winters frozen hard enough to admit of the passage of troops; and though such extreme severity is not very common, yet navigation is always suspended during winter in the shallow sea of Azov, and most commonly along the northern shores of the Euxine. On the other hand, the summers are usually hot. The sea teems with seals, porpoises, sturgeons, sterlets, dolphins, mackerel, mullet, bream, and other fish, chiefly of the same kind as those caught in the Caspian and the Aral; tunny fish also enter it from the Mediterranean, for the purpose of spawning; there are also turbot, whiting, and roach; and some writers speak of herrings in shoals, which are probably only large sprats; but there are few fisheries along its shores, though, where they do exist, they are very productive. The Black Sea receives the waters of many large rivers, as the Danube, the Dnieper, the Dniester, the Bog, the Don, the Kuban, and the Kizil-Irmak; and its basin occupies about a third part of Europe, with a small portion of south-western Asia.

The *Thracian Bosphorus* (properly *Bosporos*), or *Channel of Constantinople*, forms the only outlet of, and entrance to the Black Sea. It opens, with a narrow channel, only a mile and a half wide, in the S.W. corner of that sea, and extends, about 20 miles, to the sea of Marmora. Its width varies from less than 3-4ths of a mile to $2\frac{1}{2}$ miles; it forms in fact the finest river in the world, with a constant current flowing southward. Its banks are high, exhibiting everywhere the most beautiful scenery, and lined with an almost continuous range of towns and villages. The winding of its shores occasions strong eddies and currents, which are sometimes so rapid, that it is scarcely possible for ships to make way by tacking, in their course to the Black Sea, though, in returning, the current will carry them downwards even against the south wind. Northern winds are, however, more frequent than those from the south, and vessels from the Mediterranean are often detained by them for months in the Dardanelles and the Bosphorus, which they may easily pass in a couple of days with a favourable breeze. At its southern extremity the current of the Bosphorus strikes upon the Seraglio point, which divides it into two portions, one of which flows westward into the Golden Horn, or harbour of Constantinople, while the main body of the water flows onward to the Sea of Marmora.

The *Sea of Marmora* (ancient *Propontia*), measures in its greatest length, from Gallipoli to Ismid, about 170 miles, and in its greatest breadth, to the eastward of the 28° meridian, 48. It is indeed but an inland lake, though salt, for it is formed by the waters of the Black Sea which are poured into it through the Bosphorus, and transmitted to the Archipelago by another channel as narrow, the Hellespont or Dardanelles. It has considerable depth. Five miles N.E. of Marmora, it has 133 fathoms of water, and, at the same distance north, no bottom was found with 355. The shores are cultivated and picturesque; those of the Asiatic side are bolder than the European. The navigation is not difficult; it is generally free from danger, and good anchorage may be found along its northern shore and under shelter of the islands. It contains a large peninsula on the south coast, and several large islands, from one of which (*Marmora*, or *Marble island*) it takes its name.

The *Hellespont*, or *Channel of the Dardanelles*, is a strait 40 miles in length, and varying from 3-4ths of a mile to two miles in width, which connects the Sea of Marmora with the Archipelago. A strong current runs always through it to the south, at the rate of from 2 to 4 miles an hour. The wind also generally sets in the same direction, so that ships are often detained for a long time at the entrance, and find it sometimes very difficult to work up the stream. There are shoals in some places, but deep water is always to be found in some part of the channel. The Asiatic shore presents the most beautiful scenery; the European is generally steep and rugged. Being the only channel to Constantinople and the Black Sea from the south, it is in several places lined with strong fortifications, mounted with heavy guns; but these are commanded by the neighbouring heights, and can only prevent or retard the passage of ships; while the forts or castles themselves may be taken by landing troops with artillery. The Seraskier Pasha, who commands the forts on both sides, has his station at the Sultanieh Kalesi, on the Asiatic shore of the narrowest part of the strait. The general appearance of the channel is that of a large river flowing between banks everywhere pleasant, in some parts wooded, but on the whole far inferior in beauty to those of the Bosphorus.

The *Archipelago* (ancient *Aigaion pelagos*, *Ægeum mare*, or *Egean Sea*), is a large offset of the Mediterranean, extending northward between Greece and Asia minor about 380 miles, from Crete to the coast of Thrace, and having a width of from 80 to 240 miles. It is studded with islands; from which circumstance its name has come to be used to signify a group of islands in any part of the world. The navigation is rather intricate, and, owing to the currents produced by the numerous islands, and to the varying winds, not seldom dangerous, particularly to small vessels. On the north-west side, the Archipelago forms in Turkey several deep bays, as the *Gulf of Orphano* or *Contessa*; the *Bay of Istilar*; the *Gulf of Ayon Oros*, or *Monte Santo*; the *Gulf of Cassandra* or *Hagios Hamas*; the *Gulf of Saloniki*; the *Channel of Triki*; and the *Gulf of Volo*.

The *Gulf of Arta* (ancient *Ambraçian Gulf*) is a deep inlet of the Ionian Sea, between Albania and Western Greece, in N. lat. 39° , and E. long. 21° . Its extreme length, from east to west, is about 25 miles, and its greatest breadth about 10; but in several places it is narrower. The depth varies from 13 and 14 to 36 fathoms. The southern shore is formed by high land, with bold promontories, which are clothed with fine woods; the northern shore is for the most part low, and has encroached considerably upon the water. The entrance is only 700 yards across, and, outside, is a bar of gravel, coarse sand, and sea weed, with 15 feet water where shallowest. It was at the mouth of this gulf that the battle of Actium was fought, between Cæsar Octavianus and Mark Anthony, B.C. 29, which decided the fate of the Roman empire at that time. — (*Journal R. Geog. Soc.* III. &c.)

The other principal bays and gulfs of the Ionian and Adriatic Seas are: the *Gulf of Kassopo*, between Corfu and Albania; the *Gulf of Avlona*; the *Gulf of Durazzo*; and the *Gulf of Drin*.

CAPES. — *Tah Bournu*, *Gulgrad-burun* or *Cape Kalakria*, *Emineh-burun*, and *Cape Zaitan*, on the Black Sea; *Helles Bournu*, the S. point of the Thracian Chersonese, at the mouth of the Hellespont; *Cape Monte Santo* or *Aion Oros* (ancient *Athos*), *Cape Drepano*, and *Cape Pailouri*, the extremities of three peninsulas on the coast of Macedonia; *Cape Kissobo*, *Cape St. Demetrius*, and *Cape St. George*, on the coast of Thessaly; *La Punta*, a narrow tongue of land (the ancient promontory of *Actium*), at the entrance of the Gulf of Arta; *Cape Linguetta*, on the coast of Albania.

ISLANDS. — In the Archipelago: — *Imbro*, *Samothraki*, *Thaso*, *Lemno* or *Stalimené*, between the Dardanelles and Mount Athos. These are large islands, generally mountainous, but fertile. *Imbro* lies 21 miles west of Cape Jannissary, is 16 miles long, 9 broad, and contains some fine villages. The interior is woody. *Samothraki*, 14 miles N. of Imbro, is an oval-shaped rocky island, 8 miles long, and 6 broad. Its summit, Mount Feugari, rises 5248 feet above the level of the sea. (See *anté*, p. 153.) In ancient times it was celebrated for mysteries. *Thaso* is a large oval-shaped island, 30 miles N. of Monte Santo, and near the coast. It is 18 miles long, and 14 broad; and its summits, Ipsario and St. Elias, rise respectively to 3428 and 3374 feet above the level of the sea. *Stalimené* (ancient *Lemnos*) is a fertile and beautiful island, opposite the mouth of the Dardanelles, from which it is 41 miles distant. Its greatest length is 15 miles, and its breadth nearly equal; but its form is irregular, and it is almost cut in two by the ports of Paradise and St. Antonio. *Lemno*, the chief town, is on the west coast, but it contains no object of interest. *Thaso-poulo*, a small island between Thaso and the mainland. *Mouillani* and *Diaporo*, two small islands in the Gulf of Monte Santo. *Kassandra*, a small island in

the gulf of that name. *Sasseno*, a small island off the Gulf of Avlona. *Kriti*, or *Candia*, a large island, forming the southern border of the Archipelago. (See *post*. p. .)

RIVERS.—**DANUBE** (See *anté*, p. 393.) Its principal affluents in Turkey are:—On the right, the *Save*, with its affluents, the *Unna* from Croatia, the *Verbas* or *Verbitza*, the *Bosna*, and the *Drina*, from Bosnia; the *Morava* or *Moraca*, with its affluents the *Ibar* and the *Nissava*, from Serbia; the *Timok*, *Lom*, *Ogoust*, *Skituk*, *Iker*, *Wid*, *Osma*, *Jantro*, *Jemurlu*, from Bulgaria. On the left, the *Syll*, or *Schyll*, *Ult* or *Alouta*, *Ardjis*, and *Jalonitza*, from Wallachia; the *Sereth*, and *Pruth*, from Moldavia.

The **MARITZA**, which drains the plain of Adrianople, and has a course of 320 miles into the Gulf of Enos in the Archipelago. Its principal affluent on the right is the *Arda*; on the left, the *Tunja*, and the *Erkeneh*. The *Karasu*, or *Strouma*, or *Marmara* (ancient Greek *Strumon*, Latin *Strymon*), flows through eastern Macedonia, into the Gulf of Orphano or Contessa, after forming and running through the Lake Kadaka. The *Vardar* flows from the Tsehar-dagh through Macedonia, passing by Uskub and Gradisca, into the Gulf of Saloniki, a few miles to the west of that city. The *Indje-Karasu* flows through the southern part of Macedonia into the Gulf of Saloniki, not far from the mouth of the Vardar. The *Sakambria* (ancient *Peneus*) drains the celebrated vale of Thessaly, and opening a passage between Ossa and Olympus (the vale of *Tempe*), flows into the Gulf of Saloniki. The *Hellada* (ancient *Sperchius*), flows through the southern part of Thessaly into the Gulf of Zeitoun.

The *Aspro-potamo* (*Achelous*) drains the western slopes of Pindus in Albania, and flowing southward, through Western Greece, falls into the Ionian Sea. The *Arta* also flows from Pindus into the Gulf of Arta. The *Kalamas* flows through Lower Albania, into the Channel of Corfu. The *Vouissu* or *Vedis*, with its affluent the *Argyrocastron*, in Lower Albania, flow into the Adriatic. The *Ergent*, called also the *Berutino* and the *Kreasta*, flows from the mountains north-west of Kastoria, through Middle Albania, into the Adriatic. The *Scombi* or *Tobi*, the *Mati*, the *Black Drin*, and the *White Drin*, the *Bojina*, named *Moracca* in the upper part of its course, all flow through Albania, into the Adriatic. The *Narenta* in Hertzegowina or Turkish Dalmatia.

LAGES.—*Ruselm* or *Rassein*, near the mouth of the Danube (see p. 393), is rather a lagoon than a lake. *Takinor* or *Kadaka*, formed by the Strouma, *Betehik*, *St. Basili*, and *Ienidja*, in Eastern Macedonia; *Kastoria*, in Upper Macedonia, 80 miles W. of Saloniki; and the mountain lakes of *Joa-nimur*, 2500 feet above the level of the sea; *Skutari* or *Scodra*, *Ochrida* or *Ohrida*, *Plava*, and others in Albania.

CLIMATE.—In a country consisting of so many high plains, and intersected by so many lofty mountains, the climate must necessarily be very various, being affected not only by the elevation of the ground, but also by exposure to the prevailing winds. Commencing with the Danubian provinces, we find Bosnia and Croatia to be high and cold countries, though, on the fruitful plains near the banks of the Drina, the winters are mild. In the higher parts, however, snow lies for half the year to the depth of several feet, and Fahrenheit's thermometer has been often observed between 10° and zero. The heat of summer is seldom oppressive; but the northern districts are then warmer than the southern. The weather is often tempestuous from the beginning of June to the middle of August; the forests on the mountains collect the clouds, but the great rains during these months fertilize the ground. Spring begins in the high country about the end of April, and continues till June; the summer's heat then commences, and lasts till September; snow falls generally before the end of that month, and does not entirely disappear till the middle of May. Bosnia is, on the whole, a very healthy country; it is well supplied with water, the air is salubrious, and marshes are almost exclusively confined to the banks of the Save. The climate of Serbia much resembles that of Bosnia, though, being a lower country, it is somewhat more temperate, particularly in its long open plains. Bulgaria is a country highly favoured by nature; the cold is sometimes as severe as in Serbia, but, being sheltered on the north, the common temperature is sufficiently mild to ensure the cultivation of the vine, corn, tobacco, and various kinds of fruits. The climate of Wallachia is more temperate than that of the adjoining provinces; but the inhabitants are exposed to two months of severe cold in winter, and to two of excessive heat in summer. Lower Wallachia, being overspread with extensive marshes, is unhealthy, and bilious and intermittent fevers are common diseases. The winters in Moldavia are in general intensely cold; the thermometer has been seen at 15° below zero. The summers, on the contrary, are very warm; the grape ripens by the end of July; and the vintage is over in September. Upper Macedonia and Thrace, the modern Roumelia, were considered by the ancients to be cold countries, and in the former was placed the residence of Boreas. At Constantinople the climate is extremely changeable; and the temperature sometimes falls 31° in a single hour. Indeed, it depends upon the prevalence of the north or the south wind, whether one is shivering in the cold of Russia, or luxuriating in the balmy atmosphere of Greece. The sky is genuine English, here a portion of blue, there a rolling mass of white clouds. Like that of England, too, it seldom continues for twenty-four hours the same. The winters are extremely long and severe; the roads are often blocked up with snow; and the wind on the Bosphorus is frequently so violent, that all communication with the villages far up the channel is cut off. The countries on the Adriatic, Dalmatia and Albania, partake of the warm temperature of Italy; but are also subject to droughts, and to sudden and violent north winds. The climate of the Lower Albania, or ancient Epirus, is colder than that of Greece; spring

does not set in before the middle of March; but the summer's heat is oppressive in July and August; in which months many streams and rivers are dried up, and the grass and plants are withered. The vintage begins in September; heavy rains fall in December, and are succeeded in January by some days of frosty weather.

SOIL AND VEGETATION.—A great difference may be observed in the vegetable productions of the provinces within the basin of the Danube, and of those to the south of the central mountains; in the southern provinces the mountain sides are covered with forests of fir, yew, pine, ash, cedar, holm, oak, plane, maple, carob, sycamore, beech, walnut, and chestnut-trees. Towards the north, however, the most common trees are the ash and the lime; the carob, the sycamore, and the plane never grow but when forced by artificial means or by cultivation. The heights of the Danube are clad with apple, pear, cherry, and apricot-trees, whole forests of which may be seen in Wallachia; which extend beyond the Balkans, and cover the hills of Thrace, Macedonia, and Epirus. The olive and the orange-tree thrive beyond the 40° only near the sea, but never flourish in the interior; where the cold is too severe. The climate to the south of the same parallel is wholly different. Apple and pear-trees disappear; the olive then becomes the most common fruit-tree, and the plantations in the southern regions are interspersed with the laurel, and the large-caped myrtle. The vine is grown over the whole country, but the grapes produced on the banks of the Danube are very different from those of the coasts of the Archipelago. In the latter region they contain a great quantity of saccharine matter, while those of Wallachia are watery and acid. Strong and generous wine might, however, be obtained from the vineyards of Servia and Herzegwina, where they are sheltered from the cold of winter, and the scorching heat of summer. Indeed, were proper attention bestowed on the cultivation of the grape, the vineyards of Turkey would not be inferior to the finest in the world.

In Bosnia the hills are covered with firs, pine-trees, and birches; the plants chiefly cultivated are barley, oats, polygonum, fagopyrum, rye, potatoes, hemp, flax, and plum-trees for brandy. Turkish corn does not grow well, except in the deep sheltered valleys; and vineyards are found only near the banks of the Save. On the higher ridges in the south of Bosnia there is, below the forests of fir and pine, a zone of elms, which rises to the height of 3800 feet on the southern declivities; oaks occur lower down, and on the borders of the Albanian low country, are chestnut-trees, and vineyards. The greater part, however, of Bosnia seems better adapted for the rearing of cattle than for the production of grain. In Servia, wheat, maize, and millet amply repay the labours of the husbandman; tobacco, flax, and hemp are grown in large quantities; and whole districts are covered with apple, pear, and cherry-trees. The lower parts of the hills are covered with forests, which are mostly composed of oaks, interspersed with some ashes, a species of tilia, a great many wild pear-trees, some apple and cherry-trees, and a few hazels. In central Servia, elms occupy the plateaux, oaks occur on the sides of the mountains, and fir-trees near the summits. In the higher hills farther south, even fir-trees disappear, and the summits afford only alpine pasturages. In the valleys of the Morava and the Toplitz, and the defiles of the mountains, the Bulgarians cultivate their fields and gardens in a most admirable manner. The valleys are covered with villages, where maps only indicate a wilderness, and the cultivated fields extend far up among the hills. Vines, however, do not thrive well in the Morava valley, except round Nisha, Leskovacz, Uranja, Urkup, and near Pristina. Indian corn is cultivated in the lower valleys, where the Servian mountains protect them against the north winds. In Bulgaria the common temperature is sufficiently mild to ensure the cultivation of the vine, corn, tobacco, and various kinds of fruit. The extensive forests are varied by different trees, the beech, the pine, and the oak; and the sides of the mountains abound with fertile pastures. In Wallachia the mountains and several islands in the Danube are covered with forests of oak, pine, and beech. The pastures are fertile in aromatic plants. The fields of maize, wheat, and barley, fine melons, and a variety of other fruits, and whole forests of apple, plum, and cherry trees, bear ample proof of the productive qualities of the soil; but not more than a sixth part of the soil is cultivated. Wheat and barley are cultivated throughout Moldavia. Millet is also a common crop. The cultivation of fruit-trees and esculent plants is not in a very advanced state. The melon, however, thrives throughout the province; but the grape is the most valuable of the Moldavian fruits.

The southern base of the Balkans is remarkable for the exuberance of its vegetation, which consists of gardens of roses, jasmine, and wild lilac, vineyards, and forests of all kinds of fruit trees; but without the olive tree, the *anis*, or the *lepleb*. The

adjacent plains, however, are destitute of trees, and consist chiefly of fields under cultivation, and of pasture grounds, which are partly marshy, and have a black soil. The plain of Adrianople is celebrated for its roses, from which large quantities of attar are made. This region extends to the low hills which border the Black Sea, the Propontis, and the Archipelago. The soil of Macedonia is more fertile than the richest plains of Sicily, and there are few regions of the world so productive as the peninsular districts on the Archipelago. The land, in some of the valleys, yields the most luxuriant crops of wheat; cotton and tobacco are also grown to a great extent. Macedonia is likewise famous for its wines; corn, and different leguminous plants are profitably cultivated in the interior. In Southern Macedonia we find a Mediterranean vegetation, the evergreen-oak, the cypress, Grenada tree, oriental plane, the walnut, the fig, &c. The olive is cultivated to the south of Saloniki. Thessaly abounds in oil, wine, cotton, silk, and wool. Larissa is surrounded by a country fruitful in oranges, lemons, citrons, and pomegranates. The same district produces fine figs, excellent melons, grapes, almonds, olives, cotton, and tobacco.

The Albano-Dalmatian flora is connected with that of Italy. The olive rises to the first heights, beyond which the high country is noted for its fertile fields, excellent pasturage, and lofty forests. The basin of Skutari is, however, so much protected from the north winds that the heat is oppressive during summer, and the climate is on this account favourable for the growth of Mediterranean plants, as the pomegranate and the orange tree. The olive is also found here, though its true native country commences more to the south, at Durazzo. Mostar, likewise protected on the north by the high mountains of Bosnia, is, like another Nice, surrounded with gardens of pomegranates, olives, and orange trees, rising in terraces, and forming a fertile oasis in the stony calcareous soil of Herzegowina. In Lower Albania, the ancient Epirus, oak trees of every kind arrive at great perfection. The plane, the cypress, and the manna-bearing ash appear on the coast beside the laurel and the lentisk; but the forests of Pindus consist chiefly of cedars, pine, larch, and chestnut. Many of the mountains are dry and sterile; such as are sufficiently watered are covered with herbage, or with the wild vine, and thick groups of elders; in spring their sides are clad with flowers. The violet, the narcissus, and the hyacinth, appear in the same profusion as in the mild districts of Italy. Cotton and silk are cultivated; but the olive, for want of proper care, does not yield an abundant harvest. The Amphiochian peach, the Arta nut, and the quince, are found in a wild state in the woods, and in the uncultivated land.

ANIMALS.—The Thessalian horses were celebrated for their symmetry and strength, and have been improved by crossing with a Tartar breed, which was introduced by the Turks. A great many horses are reared in Moldavia, but those bred in the mountains are the most valuable. Although small, they are not inferior in strength and speed to the Russian horse; those of the plains are larger, but not so swift. The cattle of Wallachia are large and strong, many thousands of which are annually exported to Bosnia and Constantinople. The meadows and pastures are of a rich and excellent quality, and large herds of bees and flocks of sheep are fattened upon them. Sheep abound in Wallachia, Macedonia, and Thessaly; but the goat is more valued by the inhabitants of the mountains. The wild boar, the roe, and the fallow-deer frequent the forests. The principal carnivorous animals are the fox, the wolf, and the bear. A species of wolf, smaller than that of the hills, has been observed on the plains; it haunts the banks of the Danube, and finds shelter in the marshes, or among the reeds. The partridge and the bustard abound in the valleys. The lion was not uncommon at one period in the southern parts of Turkey, and in the time of Aristotle frequented the region between the Achelous in Acarnania and the Nessus in Thrace; but it has been long since extirpated.

PEOPLE.—The dominant people are the Osmanlee, or Othmanlee, or Ottoman Turks, a branch of the great Toorkee family of Central Asia; who are dispersed, more or less, over the whole country. There are, however, various other races, some of them more numerous than the Turks, who inhabit different provinces, and are also found scattered. These are the Roumi or Greeks, Arnauts or Albanians, Bulgarians, and other Slavonians, Wallachians, Armenians, Jews, Gipseys, and Franks.

The **OSMANLEE** have been generally considered as members of the Caucasian variety of mankind; but learned Orientalists have at last succeeded, by the aid of the Chinese annals, in identifying them with the Hiong-nu, a people who lived to the north-west of China, many centuries before the Christian era, and carried on frequent and bloody wars with the Celestial empire. From that region their migrations can be traced westward, till they finally settled in those parts of Asia and south-eastern Europe where they are now found. The Osmanlee and their brethren, the Tartars of Kazan,

Asrakhan, and the Crimea, have indeed the physical characteristics of Caucasians; but the inhabitants of the country further east, as the Nogays, Kirghises, Turcomans, and others, who speak pure Turkish dialects, are known to have a different organization, approaching nearly to the Mongolian character. It is therefore inferred that the Turks were originally members of the Mongolian variety and that the portion of them which now exhibit Caucasian features, must have acquired them by intermixture with the Caucasian races whom they invaded and subdued.—(*Pritchard on the Ethnography of High Asia. Journal R. Geog. Soc. Lond. IX. 192.*) In accordance with this theory, we find a recent traveller asserting, that any one who has paid even but slight attention to physiognomy, will, after a short residence in Turkey, perceive that the Turks belong to three essentially different classes: 1. the original Turk or Mongol; 2. the modern Turk, or Caucasian; and, 3. the mongrel Turk, or mixed breed. The Mongol Turks are by far the most numerous and the most indolent: their stature is generally short, frame thick-set, complexion dark, with a round face, thickish lips, widely distant eyes, and sunk features. The Caucasian Turk, on the contrary, is taller, has a longer forehead, well-formed face, aquiline nose, short upper lip, full chin, and clear complexion; while the mixed or mongrel Turk bears an affinity to one of the first two classes, in proportion as his descent is of remote or modern relation. Osman, the founder of the Imperial dynasty, is said to have been a pure Mongol; but the late Sultan was, and the present Sultan is, a pure Caucasian, a circumstance thought to strengthen the belief which has long prevailed, that the imperial family are not the genuine descendants of Othman. The greater part of the chief Pashas and grand officers of state are also of the Caucasian family.—(*Turkey and the Turks, by John Reid, p. 100.*) But, though the Turks may be physically divided into three separate classes, yet, in a moral point of view, they may be considered as one; such is the levelling character of their religion, that all personal distinctions are at once brought down, and set aside by the law and the prophet. The character of the Turks is, however, a question on which there is the greatest difference of opinion among European writers and travellers. Influenced by prejudice or feeling, and forming their conclusions from imperfect knowledge, or writing merely to serve a party purpose, these persons have given such conflicting accounts of the Turks as can scarcely be reconciled, or even considered as applicable to the same people. But, after a careful consideration of these conflicting statements, we are inclined to the opinion that, in respect of moral character, the Turks are not much, if at all, inferior to the generality of their European neighbours; while to some of them they are decidedly superior. Their character, however, varies in different provinces, some of them being more barbarous than others; but, considering the pernicious system of government to which they have been subjected for centuries, it is more surprising that they possess any good qualities at all, than that they are not so thoroughly humanized as some more favoured nations. They are indeed very ignorant, but, at the same time, very simple-minded, and seem fairly entitled to the reputation of being a devout, honest, and well-disposed people. The Osmanlee spurn the name of Turk, which they consider as a term of contempt, synonymous with *barbarian*; but glory in that of Osmanlee, as expressive of valour and polish. The Turkish language is everywhere throughout the empire the language of government, and generally that of trade. It is indeed the only language that will afford a means of communication with all the various tribes and races scattered over Turkey. Besides the Osmanlee, there is another race of Turks, called the *Dobrujee*, or *Dobrudschee*, who occupy the eastern part of Bulgaria, between Shumla and the Black Sea, and are divided into two hordes, the *Orak* and the *Orumbet*.

The **HELLENES**, called **ROUMI** and **YESIRI** by the Turks, and **GREEKS** by Europeans, the mixed descendants of the ancient Greeks, Romans, Macedonians, Thracians, and other tribes, who formerly possessed the country. They are very numerous in Thessaly, Lower Albania, Macedonia, Thrace, and Candia, and are found also in Wallachia and Moldavia. They bear everywhere a very indifferent moral character; but form a strange contrast to the saturnine Turk, or the taciturn Armenian; for they are active and enterprising, versatile, loquacious, lively, vapouring, and disputatious, continually hunting after distinction. The character of the Greeks is deeply imbued with credulity; and their religion is a tissue of the most degrading superstitions; but they are quick of perception, fond of quibble, and delight in sophistry. They receive the impress of every mould, and the impulse of every agent; but are sadly deficient in honesty and steadfastness of purpose. They are of pure Caucasian lineage, their features are generally noble, and regular; their eyes are large and black, eyebrows arched, complexion brown, hair dark, most frequently black; their stature above the middle size, thick-set, and muscular, yet handsome and elastic. Upon their upper lip they generally wear a moustache; beards are worn only by their priests and men in authority. The Greek women are decidedly handsome in figure, which is not injured by artificial means, beautiful in features, and elegant in manners. Their eyes are large, black, and sparkling, their air languid, complexion pale, hair black, teeth white and regular, and stature short. They are possessed of great natural shrewdness; but few of them are educated; and their moral character is but little elevated.—(*Reid, 132.*)

The **ARNAUTS**, **ALBANIANS**, or **SKIPITARS**, form the majority of the population of Albania, but are also found in great numbers in Roumelia and Bulgaria. They were probably a tribe of the ancient Illyrians, who migrated from the northern mountains in the declining period of the Roman empire; but it is not to be imagined that a primitive tribe, or one which has remained unmixed during twenty centuries, exists in a country like Turkey, inhabited by so many different nations confounded with each other. Yet the Albanians are easily distinguishable by their physiognomy, temperament, and character, from the Greeks and the Turks. They are strong, active, sober, and patient of fatigue; their happiness consists in action, and their habits are warlike; but of glory and patriotism they have no conception; their services may be purchased by any government; and, at home, they too often exercise the trade of robbers. They are, indeed, a rude and barbarous people; most of them are professors of Islam; and but few are very scrupulous about the observance of its precepts.—(*Malte Brun, VI. 188.*)

The **BULGARIANS** derive their name from an ancient Turkish or Tartar people who settled on the Volga in the fourth century, and moved afterwards to the countries between the Don and the Bog, and latterly to the south of the Danube, where they founded a kingdom, whose monarchs waged very sanguinary wars with the Greek empire. But the Bulgarians being fewer in number than the people whom they conquered, lost their nationality, and in the course of two centuries became entirely Slavonized. They were converted to Christianity in A. D. 860, and, from savage warriors, have softened down to a peaceful, industrious, and hospitable people. They are Christians of the Greek church, and form, next to the Armenians, the most respectable and most valuable class of the population of the empire. The other Slavonic races are the inhabitants of Moldavia, Servia, Bosnia, Croatia, and Herzegovina, who are all members of the Greek church, but vary considerably in character, and language, in the different provinces.

The **SERVIANS** are a very industrious race; and, by their indomitable courage, have secured the independence of their country, or at least the right of self-government, which is the utmost that can be expected by a small nation surrounded by more powerful neighbours. They are the descendants of a colony of Servians or Slavonians which migrated from Galicia in the seventh century; and they have preserved their nationality in its full integrity. Their language is an intermediate idiom, partaking of the Russian and the Polish. The **VLACHS**, **WALLAKS**, or **WALLACHIANS**, who give their name to Wallachia, and are spread in great numbers into the adjoining provinces, appear to be the descendants of the ancient Dacians and of the Roman colonists settled among them after the conquest

of Dacia by the Emperor Trajan. They call themselves *Rumanyen* (i. e. Romans), and retain a traditional pride of ancestry in spite of their present degradation. Their language is soft, abounding in vowels, and derives most of its words from the Latin, with only a small intermixture of the Sclavonic. The pronunciation nearly resembles that of the Italian; and it is a remarkable fact that the inflection and terminations of the words have a much greater similarity to those of the modern language of Italy than to those of the Latin; a circumstance which, as there has been no connection between the countries since the time of the Romans, would go to prove either that the vulgar language of Rome was more simple than is commonly imagined, or that, in both cases, the changes which have taken place are those which a polished language naturally undergoes when mixed with others, or simplified by the usage of uneducated and foreign people. It is difficult to determine how far the Wallaks have any title to their claim of Roman descent. The Roman colonists generally retreated across the Danube when Dacia was abandoned; but some of them may have remained; and from such the Wallaks of Hatze, in Transylvania, trace their descent. The rest are content with the mixture of Roman and Dacian blood, which one may suppose to have taken place between the conquerors and the conquered; and the features of the Wallaks resemble more those of the Dacians on Trajan's column than those of the Romans or the modern Italians. Their modern foreign name is said to be derived from the Illyrian word *Flach*, a herdsman, or shepherd. But, besides the Wallachians of the Danubian provinces, there are various tribes of the same name, who occupy the ridges of Pindus and Olympus, descending in winter with their flocks into the low countries of Thessaly and Macedonia. They are a hardy race, less ferocious than the Arnauts; sober, industrious, cleanly, and in high repute throughout Greece as shepherds. The MONTENEGRINS, who inhabit the southern part of Herzegovina, are the bravest, but at the same time the most savage and uncivilized of the southern Sclavonians. They possess a country surrounded by high mountains, which is quite inaccessible to their enemies, and of which the Turks have never enjoyed more than a nominal domination. The Turks are at present content to receive a small tribute, leaving the government and administration of civil affairs to the *Pladika*, or archbishop of Montenegro, who is under the protection of Russia. The people, though they have apparently conformed themselves to some of the Russian laws, have preserved with great fidelity the larger part of their national customs.

The ARMENIANS of European Turkey are comparatively a small body; and are a portion of that vagrant nation, who, like the Jews, expelled from their original country by foreign invaders, are now found scattered over all the regions of south-western Asia, everywhere preserving their national language, manners, customs, and religion. They are a most industrious and honourable people, and are highly esteemed by their Osmanlee rulers. There are still greater numbers of the other two dispersed races, the *Jews* and the *Gipseys*, who bear the same character, preserve the same manners and customs, and pursue the same sort of avocations in Turkey as everywhere else. The *Franks* are people collected from all parts of Europe, and are but few in number.

The estimates formed by European statist of the population of Turkey are entirely conjectural, and differ widely in amount. We find the following statement of the total population, and of the numbers of the separate races, in the Weimar Almanack for 1840, which is, perhaps, as near the truth as can be reached. It is taken, we believe, from a work of Mr. Urquhart. Osmanlee, 700,000; Sclavonians and Bulgarians, 6,000,000; Albanians, 1,600,000; Greeks, 1,180,000; Wallachians, 600,000; Jews, 250,000; Gipseys, 200,000; Armenians, 100,000; Franks, 50,000; total, 10,680,000, under the direct dominion of the Padishah; to which number is to be added the population of Wallachia and Moldavia, 1,500,000, forming a total population of 12,180,000 for the whole of Turkey in Europe.

RELIGION. — All the Osmanlee, and great part of the Albanians, are Moslem; the Greeks, Wallachians, Moldavians, Servians, Montenegrins, and Bulgarians, are members of the Greek Church; the Armenians adhere to the Armenian Church; the Franks belong to the various religious sects of *Frankistan* (Europe); and the Jews are followers of the law of Moses.

The law and the religion of the Moslem being both founded on the Koran, the clergy, and the lawyers form but a single order, named the *Chain of the Ulema* (i. e. of the learned), at the head of which is the Grand Mufti, or Sheikh-ul-Islam, who alone holds his office for life. He is the fountain of law, and the representative of the Khalif, or Sultan, in his spiritual capacity; and as all new laws, and even the question of peace and war, must have his sanction, he thus participates in the legislative powers of the Sovereign, and bears a share in all the movements of the government. The chain of the Ulema consists of various ranks, and admission into it, and promotion to its highest dignities, are nominally open to all; but here, as every where else, birth, wealth, and official influence, are of more value than the personal merits of the candidates. For the instruction of its members there are schools or colleges, named *mudreses*, established in all the imperial mosques; and the first step of promotion is obtained by the student, when, after completing the required period of study, his name is inscribed in the list of those who aspire to legal offices. If he then acquit himself well in the prescribed trials, he obtains a *medrese*, or professorship, of the lowest income; and afterwards advances by regular steps to the highest rank of the *medreses*, that of the Suleimaniyeh, out of which the senior *mudris* are promoted to the rank of Mahrej-Molla, or superior judges, a body who are eight in number, and hold office only for a lunar year. The next step of promotion by seniority is to one of the four superior mollaships of Adrianople, Brusa, Damascus, and Cairo; the next to the two titular mollaships of Mecca and Medina; one of whom is further promoted in turn to the rank of Istamboul-effendi, or Master of the Police of Constantinople. The next step from this office is to that of Kazi-asker of Anadoli; then to that of Kazi-asker of Roumili; and, last of all, to the supreme rank of Grand Mufti. Of course very few can reach these high offices; and the greater part of the students are content with the rank of simple cadis or judges of Naib, or sub-delegates of the judges in the towns and villages throughout the empire.

Below the high mollahs already mentioned are four ranks of judges and magistrates, the first three of which can be filled only by *muderis* or doctors, the fourth, or lowest, may be held by a *mualim*, or inscribed student. All of these officers, except the Grand Mufti, hold their offices only for a lunar year; and the price which they pay for them is a principal source of the Grand Mufti's revenues.

Besides the Chain of the Ulema, there is another distinct class of clerical officers, named the Chain of the Sheikhs. The title of Sheikh is borne by the Grand Mufti, who is the Sheikh-ul-Islam, or Head of the Faith; and under him, by the superiors of monasteries, and the *Wais*, or preachers, at the imperial mosques. The ministers of religion, also, who perform the service of the mosques, are a class distinct from the lawyers; and, having once entered upon the sacerdotal office, can obtain no farther advancement. The privileges common to all the members of the clerical body are exemptions from taxes and arbitrary imposts, and from the punishment of death, and confiscation. Their systematic organization gives them a firm coherence, which makes the church (as Europeans would call it) the most solid part of the Ottoman institutions. Its unity is secured by the controlling authority of its head, the Grand Mufti, in whose gift are all the appointments to its various ranks and offices, while the members have a common interest in maintaining its privileges. The clergy enjoy great rank and influence, and unite the firmness of an aristocracy to the spirit of a professional body. They are the natural supporters of the present state of things, and form an almost insuperable bulwark against any species of innovation. The Ulema have invariably been concerned in every political revolution in the empire, and have uniformly shewn themselves the enemies of every reforming Sultan. It is difficult to reform law and religion, even when they are taken separately; but, when united, they offer an inert, or even an active resistance, sufficient to baffle the strongest efforts of the best intentioned despot.

EDUCATION.—The great number of employments for which learning is necessary acts as a stimulus to the desire for education, and there is accordingly no want of schools, where the elements of knowledge, as spelling, reading, and the principles of grammar and religion, are taught. To all the imperial mosques are attached madrasahs or colleges, where aspirants to legal or sacerdotal offices are instructed. The pupils first study grammar, then Arabic and Persian poetry, and rhetoric. When considerably advanced in the Arabic language, they apply themselves to the reading of the Koran, the commentaries upon it, and the books of civil law; and conclude with the study of logic, natural philosophy, and metaphysics, in old Arabic works. Totally neglecting mathematics, they also study judicial astrology, as the most sublime branch of human knowledge. The number of the *Sukhtes*, or students, is very considerable. In Constantinople alone they are reckoned to be 10,000, and form the most turbulent and fenatical part of the population. They receive a daily allowance from the revenues of the mosques, and are lodged in the numerous cells attached to these buildings. But besides these ancient institutions, there is also a school of medicine attached to the Suleimaniyeh mosque at Constantinople, which was reformed by Sultan Mahmoud, who attached to it a school of surgery. He also instituted a naval college; enlarged the school of engineers founded by his predecessor Sultan Selim, and connected with it a school of architecture. Several other educational institutions were also established in his reign, either by himself or by private persons; but under the reign of his son they seem to be all going to ruin; while the old system is again reviving.

GOVERNMENT.—The Government is an absolute monarchy or despotism, vested in a *Padishah* or Emperor, of the race of Othman, who, in virtue of a compact made with the last descendant of the Fatemite Caliphs of Egypt, is also *Khalif* or Vicar of the Prophet, and, as such, Head of the Mahometan religion; but his official duties in that capacity are delegated to the Grand Mufti, or Sheikh-ul-Islam. His authority is absolute both in spiritual and temporal affairs, and his imperial prerogative allows him to put to death fourteen persons a-day without sin, as the effect of immediate inspiration. It is from this privilege that he has obtained his ordinary title of *Unkiar* (or *Hunkiar* or *Khunkiar*, i.e. the Manslayer), by which he is spoken of among his subjects. He bears also the title of *Sultan*; but is best known to Europeans by the Italian title of *Grand Signior*. He usually delegates his authority in civil and military affairs to the Grand Vizier, as his absolute lieutenant, who is charged with all the affairs of the empire, both foreign and domestic. The principal ministers of state, according to their rank, are:—1. The Sheikh-ul-Islam; 2. The Grand Vizier; 3. The two Kadiaskers of Roumili and Anadoli; 4. The Ministers of the first class, namely, the

Minister of War and Commander-in-Chief of all the regular troops; the Seraskier, or Commander-in-Chief of the troops of Anadoli; the Capudan Pasha, or High Admiral; the Minister of Commerce; the Captain of the Guard; the Minister of Finance; the Minister of Foreign Affairs (an office formerly held by the *Reis Effendi*, or Chief Secretary); the Chaoushbashi, or executor of the judgments of the Divan; the Hakimbashi, or Chief Physician; and the President of the Board of Health; 5. Ministers of the second class, namely, the Reis Effendi or Secretary of State; the Treasurer of the Sultan's income; the Beilikshi-effendi, assistant to the Reis Effendi in the executive department of his office; the Master of the Ceremonies; the Director of the Wakuffs, or charitable institutions; the Interpreter of the Porte; and the Director of the Customs. The Council of Ministers is called the *Divan*, from the circumstance of their meeting in a certain room in the palace, which has no other furniture than a *divan*, or wooden bench placed along the wall, about three feet high, and covered with cushions. It is here that laws are made, suits decided, firman issued, troops paid, and the representatives of foreign sovereigns prepared for their introduction to the august presence of the Sultan. The imperial court itself is usually called by Europeans, by the French designation of the *Sublime Porte*, a name derived from the *Bab-Humayon*, the principal porte or gate of the outer wall of the palace, from which the imperial edicts are issued. But the principal officers of the household frequently possess great power and influence, and exercise more control over public affairs than the ostensible ministers, who are sometimes only their instruments or tools. The Sultan has no legal wives; but he chooses several of the *odaliskues*, or females of the palace, generally three or four, never exceeding seven, who bear the title of *Kadine*, or lady, and have each a separate establishment. At his death these are removed to the old palace; but the Sultana Validé, or Sultan's Mother, remains in his palace, and is sometimes allowed to interfere and exercise a predominant influence in public business.

For administrative purposes the empire is divided into provinces called *eyalets*, the larger of which are governed by Pashas of three tails, with the official title of *vizier*; and the smaller, by Pashas of two tails, with the title of *mirimiran*. The *eyalets* are subdivided into districts called *livas* or *sandjaks*, each of which is under the charge of a Pasha of one tail, with the title of *mira-liva*, or *sandjak bey*; the cities and towns are governed by *mutselims*. These provinces are usually called *pashalics* by Europeans. *Pasha*, however, is not an official title, but is merely a personal honour, like knighthood in Europe, conferred by the Sultan. There are three ranks of pashas (or *bashaws*, as the word used to be spelled by old English writers;) the first or highest class have the privilege of bearing a standard of three horse-tails; the second of two; and the third of one. The pasha is invested with the full powers of absolute government within his province; is the chief of both the military and the financial departments, and of police and criminal justice; with the power of life and death, of making peace and war; in short, of doing what he pleases, so long as he can purchase and secure the favour of the Sultan and his ministers, or set them at defiance. The provinces have hitherto been sold to the highest bidder; the successful pasha, of course, makes it his business to re-imburse his outlay by every species of extortion; and exercises his power in the most tyrannical and reckless manner. Nor is this system of venality confined to the sale of provinces; corruption seems still to pervade every department of the state, civil, legal, and ecclesiastical; and, under its baneful influence, the provinces have been made little better than deserts, and the empire has been brought to the verge of ruin. The late Sultan Mahmoud made many vigorous efforts to reform abuses, and his successor Abd-ul-mesjid, has issued a Hattischeriff, or edict, dated 3d November 1839, promising to endeavour by new institutions to secure for the provinces of the empire the benefits of a good administration.

FINANCES. — The revenues of the state are raised by a variety of imposts; but as no accounts are published by the government, we have not the means of stating correctly the amount which reaches the imperial treasury. The Christians and Jews are subjected to a haradz or poll-tax, and other vexatious imposts, from which the Moslem population are free. In the simple institutions which have formed the safeguard of the empire against internal abuse, and foreign encroachment, direct taxation was an essential element. Besides the haradz levied on the rayahs or infidel subjects, in lieu of military service, the whole regular revenue used to be derived from the *miri*, a sort of property-tax, assessed and levied by each community or township separately. A certain sum was fixed as the contribution of each village or district, proportioned to its means, and each inhabitant paid his share according to a rate assessed by the

communal council. When, however, Mohammed II. introduced the system of farming the revenue, he superseded the functions of these councils. The members retained their office and title of *ayan*, but had no longer any control over the pashas, who had purchased their offices, and thereby become owners, or farmers of the revenue. These municipalities, however, still exist, and are acknowledged by the government, but their power is in abeyance; yet it is principally to them that Turkey is indebted for the preservation of its social organization, amidst so many misfortunes, and so long a continuance of misrule. Indirect taxes have also been introduced, similar in character to our excise and customs; and certain duties are now levied on the export and import, the transit, and the sale of merchandise. It is asserted that, of late years, the general revenues of the empire have been in so flourishing a condition, as to have actually left a surplus over the expenditure.

ARMY AND NAVY.—The celebrated corps of Janissaries was at first formed of slaves and captives; but its ranks were soon filled with the bravest of the Osmanlee; and, as a military brotherhood affords some chance of protection against arbitrary power, all crowded to the muster-roll of the Janissaries. The multitudes, however, of which the order at last consisted, were not all subject to military discipline, and only served to fill the empire with turbulence and confusion, without increasing its real strength. The number of Janissaries enrolled, at the close of last century, was about 400,000; pay was issued for 60,000; but not more than 25,000 men could at any time be mustered during the Russian wars. The corps was originally formed as a protection to the Sultan against his powerful subjects, the military or feudatory chieftains; but soon becoming corrupted, it substituted the danger of a pampered and licentious soldiery. Bajazet II., within a century and a half after the organization of the body, formed a plan for their destruction; and Murad IV. destroyed great numbers of them, without, however, exterminating them entirely. Selim III. prohibited the recruiting of the corps, and this act cost him his life. The suppression of the Janissaries at last became essential to the security of the Sovereign and the State; and by one deadly blow, dealt by the late Sultan Mahmoud, that baughty soldiery, to whose predecessors the empire owed the largest share of its extent and glory, was totally extinguished in 1826.

A sense of their declining strength has induced the Sultans, since the beginning of last century, to aim at introducing some military reforms, and to endeavour, by the adoption of European tactics, to retrieve the tarnished glory of their arms; but small success attended their efforts, till the reign of the late energetic Sultan Mahmoud. After the destruction of the Janissaries, Mahmoud determined that the *nizam-jedid*, or new military force, should adopt the European dress and tactics. He found, however, his Moslem subjects so hostile to these innovations, that he was obliged to enrol only very young men, whose prejudices were not very deeply rooted, and merely retained a small number of old soldiers to incorporate with the new levies, which were raised by conscription, mostly in Anadoli. The French system of tactics was that selected for the infantry, and French officers were appointed as their instructors; but, though the soldiers possess zeal, diligence, and habits of great attention, when under instruction, their instructors have hitherto failed in forming them into an efficient army.

An important part of the army formerly consisted of the *spahis* furnished, in time of war, by the *timariots*, or great feudal proprietors of lands in Anadoli, to the amount of about 20,000 good cavalry; but Sultan Mahmoud destroyed these fiefs; and the cavalry soldiers are now levied like the infantry, by conscription; subject to the same system of instruction. The horses are strong and active, and, though not large, have more bone than those of Arabia, and are admirably calculated for light cavalry. The riders are armed with swords and lances, and are generally finer men than the infantry. The artillery are, however, the best soldiers in the army, and work their guns with great dexterity. The soldiers, Marshal Marmont says, are better fed than any other troops in Europe; their magazines are filled with stores, and the regiments have large reserves; their pay is twenty piastres a-month, the whole of which they receive; and, in short, every thing has been done that could promote the comfort of the soldier. The instruction is conveyed in a mild and explanatory manner; harshness is, indeed, unnecessary, as the men are naturally orderly and well disposed, and shew great anxiety to acquire a knowledge of their duties. Owing to their habits of sobriety, offences against discipline are unfrequent. For small offences the soldiers are liable to be caned; and for those of a graver nature, they are subject to the same punishment that would be inflicted on civilians. At

the commencement of the year 1840 the force of the army was estimated at 94,000 infantry and artillery; with 25,000 regular, and 100,000 irregular cavalry.

The Osmanlee have never been a maritime people, nor have they paid any attention to the art of navigation; their military navy, after its triumphs in the fifteenth century, was long neglected, till the Sultan Mahmoud infused his energy into this department, as into every other, and succeeded in creating a very respectable fleet, which he left to his successor. At the time of his death, however, the Capudan Pasha carried off the fleet then at sea, and delivered it up to the Pasha of Egypt. At the commencement of 1840, the number of ships, including, we presume, those at Alexandria, was stated to be ten sail of the line in serviceable order, and five unrigged; 10 frigates on service, one in dock, and 4 unrigged; and 3 steam-ships; besides several corvettes, and other smaller vessels. Before the Greek insurrection, the fleet was manned by the Greeks of the Archipelago; and their pay was furnished by the Greek nation. The patriarch of Constantinople was empowered, by an express order of Government, to impose the requisite sum, called *millahiye*, or the sailors pay, upon the Greek inhabitants of the capital, and, through their archbishops and bishops, upon those of the provinces. The fleet is now manned by landsmen trained in harbour, and is commanded by officers equally ignorant of seamanship, and of naval tactics.

MANUFACTURES AND TRADE.—Turkey is not a manufacturing country; and the people make no pretensions to rival the science and capital of Britain. But their fertile territory and genial climate enable them to supply many of the materials for foreign manufacture; and these with their other agricultural products they are content to raise, and to receive whatever can be furnished to them cheapest and best in return. There are, nevertheless, several places distinguished for the production of excellent manufactured articles. The carpets of Anatolia frequently combine economy and comfort in use with elegance of pattern; while in the beauty and durability of the colour they are equalled only by those of Persia, which surpass them in delicacy and costliness. The Turks, however, have never attained the art of making woollen cloths, except of the coarsest kind; but other branches of manufacture are shewn to be active in the country, from the increased importation of cotton twist, where it is entirely used. The coarser and more common articles of their manufacture, such as muslins, ginghams, and handkerchiefs, have given way before those of England; but the finer fabrics of silk and cotton still maintain the competition, and are likely to do so, from their superior quality, beauty, and durability. Silk stuffs are made at Constantinople and Saloniki; the braziers and ironsmiths of Shumla have carried their art to great perfection; good steel is made at Bosna-Serai, Scutari, Karatovi, and Constantinople; and fire-arms at Semendria, Grabora, and other places. The grand commercial principle of Turkey is unlimited freedom of trade; and though the late Sultan Mahmoud, under evil influence, endeavoured to enforce prohibitions on the export or import of certain articles, yet these prohibitions, and all monopolies, have been again abolished, and the trade is now only limited and restricted by the extent of the supply and demand. The principal articles of export are: horses, beeves, and swine, tanned and raw hides, wool, wine, tobacco, cotton, currants, almonds, figs, dates, and other fruits, olive oil, wax, honey, opium, raw and spun silk, camlet, carpets, morocco leather, gall-nuts, valonia, madder, gum-dragon, sponge, copper, alum, &c.; while the articles imported consist of corn, and every sort of manufactured and colonial produce.

Commercial relations have long been maintained between England and Turkey, and till a recent date there existed in London a Turkey Company, which possessed the exclusive privilege of trading to the Levant. The trade, however, once carried on by the company had gradually dwindled away; the origin of our present trade with Turkey is but of recent date. Before the last war between Britain and Turkey, in 1807, only two or three British vessels proceeded annually to Constantinople with assorted cargoes. Of these, cotton goods formed but a small proportion; and a quantity not much larger was sent to Smyrna. When Malta became a depot for our trade in the Mediterranean, the Greeks, imbued with an almost intuitive talent for commerce, began to make purchases there of British manufactures; and sent from that island every variety of goods likely to suit the market, chiefly to Smyrna, from which the capital was supplied. An English merchant, who had conceived a just opinion of the capabilities of the traffic, established a house at Constantinople in 1812, which for several years had the whole command of the direct trade with England. From that period Constantinople became a rival mart with Smyrna, and has at length com-

pletely eclipsed it in the supply of British manufactures. The trade has gone on continually increasing; and no country now affords a better field for commercial enterprise. Besides the English houses, there are now upwards of seventy Greek houses in Constantinople which trade with England, besides a number of Armenians and others; and most of the French, Austrian, and Italian merchants. About one-fourth of the same number, probably, exist at Smyrna, and there are several at Saloniki, and in the principal towns of Syria. Besides English merchants and manufacturers engaged in business with Turkey, there are eight Greek houses in London, with two branches at Manchester; four Armenian and Syrian, and one Anglo-Levant house; in all thirteen Levantine firms, which enjoy respectable or first-rate credit. The proportion of British produce and manufactures now sent to Turkey, is one-twenty-fifth of the whole quantity exported. It is one-fifth of that sent to the United States of America, one-half of that sent to Germany, four-fifths of that sent to Holland, Italy, and Brazil respectively; it exceeds by one-third the exports to Portugal and France; and the whole trade to Sweden, Norway, Denmark, Prussia, and Spain together; it equals the amount exported to Russia, and is nearly equal to the exports sent to our North American colonies; it falls short little more than one-third of our exports to the East and West Indies, and is double the amount of our exports to China. The trade is now principally carried on by native merchants, and their commission-houses, or partners in England, being shared with English houses; and, consisting only of real transactions, and affording no scope for speculation, it has been more steady and secure than that with any other country. Goods for Persia, however, have of late years formed the most valuable part of the shipments for Constantinople, which is not only in the direct road, but offers nearly as great advantages from being an intermediate market. From Constantinople, the goods for Persia are sent to Trebizond, and thence overland through Armenia.

Previously to the convention of 16th August 1838, the only recognised duty on imports from Britain was three per cent.; but other duties were subsequently levied at and after the sale of the goods imported, which equalled in amount the import duty itself. By the convention of 1838, the duty on imports is fixed at the same rate of three per cent.; and, in lieu of all other exactions, one fixed rate of two per cent. is established, on payment of which all goods imported may be sold and re-sold, without further duty or restriction. With regard to exports, the only recognised duty was also three per cent.; but other duties, fluctuating in their nature, and oppressive in amount, were levied at the caprice of the authorities, on all articles of value, and especially on valonia, silk, oil, and opium. By the convention of 1838, the duty on exports to Britain is fixed at three per cent.; all monopolies and prohibitions are abolished; and in lieu of all inland duties on goods to be exported, one fixed rate of nine per cent. is established.

According to the last published returns, the number of vessels which entered the port of Constantinople in each of the years 1837 and 1838, were 3671 and 5625. The number of British vessels in 1837 was 432, with a tonnage of 86,253; and in 1838, vessels, 419, tonnage, 120,860. Of Ionian vessels, the numbers were, in 1836, vessels, 263, tonnage, 41,852; in 1838, vessels, 308, tonnage, 45,793. Of the vessels of other nations, the following numbers are given, without the tonnage, of which the British Consuls have no account. In 1837, American, 3; Austrian, 732; Belgian, 4; Danish, 2; Dutch, 2; French, 19; Greek, 832; Neapolitan, 15; Prussian, 5; Russian, 555; Sardinian, 793; Swedish, 9; total, 3671. In 1838, American, 3; Austrian, 811; Belgian, 15; Dutch, 7; French, 48; Greek, 2228; Neapolitan, 64; Russian, 570; Sardinian, 866; Swedish, 4; Tuscan, 36; total, 5572. Of Turkish vessels there is no account given for either year; and, of the Greek vessels the average tonnage is stated to be very small compared with the number of vessels, among which are included craft of all kinds and sizes. The number of vessels which entered the port of Adrianople in 1837, was 7, of which 3 were British, 1 French, and 3 Greek; the Port of Saloniki, in 1837, 329, of which 5 British, 3 Maltese, 4 Ionian, 6 French, 15 Austrian, 2 Russian, 13 Sardinian, 243 Greek, and 38 Turkish; the Port of Smyrna in 1837, 897, whereof British 110, Ionian 20, Maltese 4, American 13, Austrian 145, Dutch 6, French 61, Greek 498, Russian 17, Sardinian, 18, Swedish, 5, Turkish, not known. The number of vessels which entered the port of Trebizond, in 1837, was 131, of which 31 British, 73 Turkish, 19 Austrian, 4 Russian, and 4 Greek; tonnage, 22,349; value of cargoes, £1,145,471, whereof £623,372 were those of the British vessels.

INTERNAL COMMUNICATIONS. — It is hardly necessary to say, that there are neither canals nor railroads in Turkey. Many of the common roads are impracticable for car-

riages of any sort, being mere tracks formed by long use; and only a few will admit European carriages. It is, therefore, the custom to travel on horseback; ladies occasionally make use of bad waggons. In European Turkey, the common beasts of burden are horses and asses; in Asiatic Turkey, camels are also employed. For the accommodation of travellers there is abundance of inns, called *han* or *khan*, or, when in small villages, *meyhane*. In these the traveller generally finds during summer every comfort, if he can adapt himself to Oriental customs. Throughout the empire, both in Europe and Asia, there is a great posting establishment, consisting of a series of posts, placed at various distances, from 3 to 16 hours, and extending along most of the great lines of road. In these, horses are kept for the use of the government couriers, called *Tartars*, who form a separate corporation, and are distributed over the empire at the residence of each pasha, where they live in a house set apart for themselves, called the *Tartar-han*. They are generally a good sort of people; and though they drink a good deal of brandy, are always sober when on the road, and intemperate only when they arrive at the end of their journey, or when they have plenty of money, and are in a large town. The Tartars may be engaged by private travellers, as conductors of their journey; but a government order is necessary for the supply of post-horses, which are furnished at a very low rate. When carrying government dispatches, the Tartars travel without intermission, at so rapid a rate that few ordinary travellers are able to accompany them; but, when hired, especially by a traveller, the Tartar acts as his servant, but never mixes with the other servants, dining alone, to maintain his dignity. A *firman*, obtained at Constantinople from the Sultan, gives a traveller the right, not only to have a Tartar as his companion and protector, but also to be put into private lodgings, in the towns and villages, generally in the houses of Christians, who are so accustomed to this regulation, that many have a part of their house expressly set apart for foreigners, to prevent them from seeing their wives and families.

DIVISIONS.—Turkey is usually divided by European geographers into nine provinces or regions, namely, Roumelia, including the ancient Macedonia and Thrace; Thessaly; Albania; Herzegowina; Bosnia and Turkish Croatia; Servia; Bulgaria; Wallachia; and Moldavia. These divisions we shall follow in our topographical description. But for administrative purposes, the country remaining under the direct dominion of the Padishah is divided into four eyalets, which are again subdivided into *livas* and *sandjaks*.

The EYALET OF ROUM-ILI comprises Thessaly, Albania, and the western part of Roumelia, and is divided into the *livas* of *Iounina*, *Saloniki*, *Monastir*, *Trikhala*, *Scutari*, *Ochrida*, *Aelona*, *Kustendil* or *Ghiustendil*, *El Bassan*, *Peresin* or *Prisrend*, *Dukagin*, *Uskup*, *Delvino* or *Delbino*, *Velischterin*, *Cavala*, and *Alaja-hissar* or *Krukhovac*.

The EYALET OF BOSNIA comprises Bosnia, Croatia, and Herzegowina, and is divided into the *livas* of *Widdin*, *Kiblas-Bosna*, *Izernik* or *Zrornik*, *Ada-i-kehir*, and *Trebigne*.

The EYALET OF SILISTRIA comprises Bulgaria and the eastern part of Roumelia, and is divided into the *livas* of *Nicopol*, *Chirman*, *Viza* or *Wisa*, *Kirkilissa* or *Kirklish*, *Silistria*, and also includes the fortress of Belgrade.

The EYALET OF THE JEZAYRS OR ISLANDS comprises the coasts of Thrace and all the islands of the Archipelago, with Cyprus; but many of these are now included in the new kingdom of Greece. This eyalet contains the *livas* of *Gallipoli*, *Metcin*, *Rhodes*, *Lefcosia*, *Chio*, *Samo*, &c.

§ Cities and Towns.

1. *Roumelia*. CONSTANTINOPLE (called by the Turks STAMBOUL, or ISTAMBOUL), the metropolis of the Ottoman empire, and the chief city of Islam, is situate on a hilly promontory at the southern entrance of the Thracian Bosphorus, in N. lat. $41^{\circ} 1'$ and E. long. $28^{\circ} 55'$. The city is built on seven hills with their intervening valleys, and forms an irregular triangular-shaped area, pointing to the east; having its south side washed by the Sea of Marmora, and its north by the waters of the Golden Horn, which, extending five miles inland from the Bosphorus, forms one of the finest harbours in the world. The west side is formed by a triple wall which stretches across from the harbour to the sea. The total circuit of the city is between 11 and 12 miles, of which each of the three sides occupies nearly four, the harbour side being considerably the shortest. Within this enclosure the city forms a confused mass of narrow, winding, steep, and dirty streets, crowded with wooden houses, and interspersed with numerous mosques, the principal of which crown the summits of the seven hills with their massy domes and lofty minarets, and give to the city, from a distance, an appearance of magnificence which a closer examination dispels. The point of the promontory is occupied by the Serai or imperial palace (called *Seraglio* by the Franks), which consists of a group of buildings of various forms and dimensions, in the midst of numerous courts and gardens, the whole being surrounded by a high wall. The principal buildings in the city are the mosques, of which there are twenty dignified with the title of *khanika* (imperial). The first of these is the ancient church of the Holy Wisdom (*Agia Sophia*, most absurdly converted by Europeans into a female Saint Sophia), founded by Constantine, and rebuilt in its present form by the Emperor Justinian, in the sixth century. Externally, it is a large square building, crowned with cupolas; but, inside, it exhibits the form of a Greek cross, the intersection of which is surmounted by a very flat dome, 115 feet in diameter, and 180 feet above the floor. In front is an ancient belfry; and its Moslem masters have added a beautiful minaret at each of the four corners. This mosque closely adjoins the Serai. Nearer the south end of the same hill is the Ahmedya, or Mosque of Sultan Ahmed I., which is not only the chief of all the mosques, but also the only one in the empire that has six minarets. It is the State Church, or Cathedral, of Constantinople; for to it the Sultan generally repairs on the two great festivals of the Bairam, accom-

panied by his whole suite; and it was here that Sultan Mahmoud appealed to his assembled people for their assistance to crush the Janissaries. The Suleimaniyeh, the most splendid monument of Ottoman architecture, and built under the greatest of the Ottoman Sultans, Suleiman the Magnificent, in the middle of the sixteenth century, by Sinan, the greatest architect in the empire, stands on the top of the second hill, and contains, within its sacred precincts, the mausoleum of the founder, his consort, and his children. These, and all the other mosques, are built after the model, or in imitation of St. Sophia's; but the latter is greatly surpassed by the Suleimaniyeh. The general plan of them all is the same; they contain, within their outward enclosure, a fore court, a garden or place of graves forming a back court; and, between the two, the sanctuary itself, the mosque, which, if small, is called *mexid* (the place of worship), if large, *jami*, (the assembler.) Of the latter there are said to be 100 in the city and its suburbs; and it is only in them that, on Fridays, the prayer for the Sultan is pronounced from the minbar, or speaker's pulpit. As in Islam all instruction is founded on religion, and jurists are at once theologians and lawyers, it is natural that mosques should be the central points around which scientific and literary establishments should be grouped. Thus in the Constantinopolitan mosques are founded the mudresses and the libraries; and of these institutions Constantinople possesses about 300.

Besides the church of the Holy Wisdom, there are several other remains of Roman antiquities, as a monolithic Egyptian obelisk, another obelisk formed of several pieces, and appearing to have been once covered with brass, and a brazen column formed of the bodies of three twisted serpents, in the Atmeidan or Hippodrome, an open area adjoining the Serai, 250 paces long by 150 broad, and originally formed in the ancient Byzantium by the Emperor Severus; the burnt column in the street of Adrianople; the column of Theodosius in the palace garden; the cistern of Constantine, now called *Binderik*, or the thousand and one pillars, and the *Yerebatan Serai*, or subterranean palace, two ancient reservoirs, both situate near the burnt column; and the *Bostjahan-keneri*, or aqueduct of the Emperor Valens, connecting the third and fourth hills, and consisting of two rows of arches, partly ruinous, though still serving to convey water.

Constantinople contains a number of covered bazaars, which have more the appearance of a row of booths in a fair, than of a street of shops; yet the arrangement and exposure of their various and gaudy articles would astonish a person familiar even with the splendour of London. Not only these bazaars, but those which more resemble open streets, are severally allotted to particular trades and articles of merchandise, after the manner of Athens and Rome, and of this city when under the dominion of the Greeks. Water is to the Orientals the symbol of the principle of life, and the words of the Koran, "By water everything lives," is almost universally inscribed on the great fountains, some of which form the finest ornaments of the city. Baths are a luxury indulged in by all classes, and of these useful establishments there are about 130 dispersed through the city. Some of them are built of marble, but in general their external appearance is no way remarkable. Internally, they are divided into a number of circular rooms, lighted from cupolas, and containing the baths, with all their necessary appendages. The supply of water is brought by aqueducts, partly above and partly under ground, from seven reservoirs or *bends*, in the neighbourhood of Belgrade, a village 15 miles to the north of the city. For the reception of strangers, there are 180 *hans* or inns, which are just so many large stone barracks or closed squares, and have, like the baths, every recommendation except architectural elegance. They generally contain a range of warehouses and stables on the ground floor, and ranges of small chambers in galleries above, which are kept neat and clean by the servants of the han, and are fitted up for the time with the carpets and slender wardrobe of the occupiers. These useful structures are the work of sultans and other munificent individuals; so that strangers, with the exception of a small fee to the servant, are gratuitously lodged, and, during their sojourn in the city, are masters of their rooms, of which they keep the keys. They are open to men of whatever quality, condition, country, or religion; and have contributed to attract the merchants and the merchandise of the furthest Moslem countries of Africa and Asia to the Imperial city. During fires or insurrections, their iron gates are closed, and they thus afford complete security to the persons and the property of the merchants.

Connected with the Imperial Court, are two buildings in Stamboul which require notice; namely, the *Eski Serai*, or Old Palace, and the *Yedi Kulleler*, or Seven Towers. The former is a large walled structure in the heart of the city, used as the residence of the cadines of the deceased sultans and their attendants; the latter is an ancient castle at the south-western corner of the city, close by the sea. Three of the seven towers have disappeared; those remaining are 200 feet high; but the whole is ruinous, and garrisoned only by a few soldiers. It was originally built soon after the foundation of the city, was repaired and strengthened by Mohammed II., and afterwards became the chief garrison of the janissaries, and a state prison.

Outside the city walls, and beyond the harbour and the Bosphorus, are several towns and villages, which may be called the suburbs of Constantinople. Immediately adjoining the wall, to the westward of the city, are the villages of *Eyoub*, *Otakdiler*, *Merla-hane*, *Balukli*, *Kutukuk-Balukli*, and *Buyuk-Sal-hane*; on the north side of the harbour are *Galata*, *Pera*, *Top-hana* and *Fundukli*, *St. Demetri*, *Cassim-Pasha*, *Haas-kioy*, and *Soutlejeh*; on the east side of the Bosphorus is the large town of *Scutari*, about nine furlongs from the Seraglio point, and *Top-hana*. *Galata*, the largest of the suburbs, is the principal seat of trade, and the usual landing-place from the Sea of Marmora. It extends along the north side of the harbour, near the entrance, and up the slope of the adjoining hill which is occupied by Pera, and from which it is separated only by a wall with gates, which are closed at night. The dwelling-houses of Galata are built of wood, but the warehouses are of stone, arched, and provided with iron doors and shutters, as a precaution against the frequent fires. As a further precaution, a watch is set upon a lofty tower which commands an extensive view, and from which the alarm is given. There is a similar tower, called the Seraskier's, in Stamboul, near the palace. Galata contains the Imperial custom-house, a Roman Catholic church, a convent of Dominicans, and one of the Capuchins; and a number of Greek and Armenian churches, but only one mosque. *Pera* is the head-quarter of diplomacy, and the residence of the European ambassadors and consuls, and is chiefly inhabited by Franks. It is devoid of any Oriental character, and bears much resemblance to a second-rate Italian town. *Top-hana* forms a continuation of Galata along the shore to the eastward, and derives its name from the cannon foundry established here. It contains also the artillery barracks; and its fine quay is the usual place of embarkation for Scutari and the villages on the Bosphorus. *Fundukli* a straggling village along the shore continuous with Top-hana to the north. *Cassim-Pasha* is an extensive suburb to the west of Galata and Pera, from which it is separated by extensive burying-grounds. It possesses few attractions for strangers. The suburb of *St. Demetri*, occupying a height above Cassim-Pasha, and wholly inhabited by Greeks, was almost entirely consumed by fire in 1832. On the heights behind Cassim-Pasha and St. Demetri is the *Ok-meidan*, or Place of Arrows, where the sultans used frequently to exercise themselves in shooting with the bow and arrow. *Eyoub* is a beautiful and picturesque suburb, at the north-west corner of the city, extending along the upper part of the harbour, and surrounded by gardens and cemeteries thickly planted with cypress. It takes its name from Eyoub or Iob, the companion and standard-bearer of the Prophet Mahomet, who was killed during the first siege of Constantinople by the Saracens, A.D. 668, and was buried here. His burial place was revealed in a vision to the conqueror, Mohammed II., who erected a mosque on the spot. The mosque is an elegant building of white marble, and is the place where the sultans are in-

augmented, by being girded with the sword of Othman, the founder of the empire. No Christian is allowed to enter the mosque, or to reside in the village. As a burial-place Eyoub is held in great veneration, and, next to those of Scutari, its cemeteries are the most remarkable of any near the capital. *Scutari*, like Rome and Constantinople, stands on seven low hills, on the east side of the Bosphorus. Its structure in every respect resembles that of the city itself; it contains eight mosques, five of which were built by sultanas and three by sultans. Its ancient Greek name was *Chrysopolis* (Gold-town), probably from its being the place where the Persian tribute was collected. Its modern name of *Uskudar* (Italianized into Scutari) is a Persian word, meaning a courier. Scutari is, and has been from the remotest period, the post station for Asiatic couriers, the great rendezvous of caravans, and the place where travellers to and from the east commence and terminate their journeys. In front of the town is the *Kis-Koulasi*, or Maiden's Tower, built on an insulated rock in the Bosphorus.

The Bosphorus itself we have already described. Its great branch, the Golden Horn, extends nearly five miles inland, with a width varying from two furlongs to five, but gradually narrowing near its termination, where it receives the "Sweet waters" of the rivulet called by the ancients *Lukos* or *Lycus*. The water is deep enough to float the largest ships close to the land; and there is room sufficient for 1200 sail. The steepness of its banks, and its great depth of water, which is subject to no variation from tides, afford peculiar facilities for loading and unloading vessels. The Imperial naval arsenal, *Ters-hana* (the place of shipwrights), is situated near the upper end of the harbour, in the suburb of Cassim-Pasha; the inclosure comprises docks, workshops, stores, and steam-engines. The artificers are chiefly Greeks and Armenians; but the director is, or was recently, an Anglo-American, a man of great talent and reputation, who has constructed ships of the most enormous size. The *Bagnio* or prison is close to the Arsenal, and behind it are the picturesque ruins of the palace of the Capudan-Pasha. In 1837 an elegant wooden bridge, resting on boats, was constructed across the harbour, immediately below the arsenal, which forms a communication between Stamboul and Pera. Ships pass it by means of two draw-bridges. Besides the ships floating in the harbour, the surface of the Golden Horn is covered with a countless number of boats, both large and small, which ply for hire, like the wherries on the Thames. Some of these boats or *caïques* (kaw-ees) are extremely elegant, and the dexterity of the *caïquee* (boatman) makes them glide with great rapidity over the smooth surface of the water. Large and heavy boats, rowed like Thames barges, start at short and regular intervals from Scutari, Top-hana, and the Baluk-bazaar (fish-market), which are crowded with passengers for the villages on the Bosphorus. Steam-boats have lately made their appearance in these quiet waters, to the great annoyance of the *caïquees*, whose frail vessels are in danger of being overset by the commotion raised by the wheels.

Constantinople and its suburbs are peopled by a motley assemblage of Turks, Greeks, Armenians, Jews, Franks, and natives of the East, to whom separate quarters or districts are allotted; though in certain parts some of them dwell promiscuously. The Ottomans themselves chiefly occupy Stamboul; but within its walls are also the quarters of the Armenians, Greeks, and Jews. The Armenians have two quarters, one alongside the sea of Marmora, and the other alongside the harbour, very near the middle of each side. These form the busiest, the most valuable, and most respectable part of the population; they are the bankers, the corn merchants, goldsmiths, physicians, surgeons, bakers, builders, braziers, jewellers, weavers, hucksters, in short, the general mechanics, labourers, and men of business. They are mild, persevering, sober, patient, and honest, but skilful in their dealings; and some of them are very wealthy. The Turks highly esteem them, and prefer them to any other people for the management of their commercial and financial transactions. The *Roumi*, or Greeks, called also *Yezirs* or slaves by the Turks, are likewise an important class. They are very much scattered throughout the city, owing, it is supposed, to most of their ancient churches having been allowed to remain, and thus to induce a portion of the people to reside in their vicinity. But the greater number, and the most influential part of them, reside in a district called the Fanar, adjoining the harbour, towards the north-west corner of Stamboul. The Greeks have become almost proverbial for their intriguing character, duplicity, and dishonesty; they are the inveterate enemies of the Turks, and almost all favourably disposed towards Russia. The Fanariotes are the most respectable of the class. But the Greeks of the suburbs are, according to a late traveller (*Reid*), a class of thieves, liars, swindlers, and assassins; a worse set, he says, it would be impossible to find. The Jews are nearly all of Spanish extraction, and understand more or less the Spanish language. There are, however, to be found Jews from Persia, Arabia, Tunis, France, Italy, Germany, Poland, Greece, and Asia Minor; of whom the least respectable are the Greek and the Smyrniot. They have two districts assigned to them; the one named *Baleta*, on the south side of the harbour, to the west of the Fanar, and the other *Haskoi*, or *Haas-kioy*, on the north side; but they are also found in all the Christian quarters, and among the villages on the Bosphorus. Their quarters are the most densely peopled, but at the same time the dirtiest and most squalid portion of the city. The Jews are not confined to mercantile pursuits; but are found exercising the callings of tinsmiths, carpenters, shopkeepers, coffee-house-keepers, tailors, bootmakers, and weavers. The most respectable of them have warehouses in the *hans*; but many of them infest the streets, where they are exceedingly troublesome to strangers; and such is their pertinacity, that violent means are necessary to drive them off. They are a persecuted race here as elsewhere, but still they thrive. In the street they assume the appearance of poverty; but many of them are wealthy, and possess houses richly furnished. The Franks form a motley and varied class, consisting of English, Scotch, Irish, Maltese, and Ionian Greeks, Americans, French, Italians, Swiss, Prussians, Austrians, Hellenic Greeks, and Russians; all of whom enjoy the protection of their own national laws, which are administered by their consuls. Their number in 1839 was calculated as follows:—Scotch, 120; English, 80; Irish, 21; Maltese, 2000; Ionian Greeks, 4000; Hellenic Greeks, 2350; Americans, 20; French, 700; Italians, 2500; Prussians, 440; Austrians, 2000; Germans, 3500; Russians, 4000;—total 18,231. The Scotch, English, Irish, and French, are the most respectable; some of the others preserve a decent character; but the mass of them, says *Reid*, are the most practised rogues, thieves, assassins, gamblers, swindlers, and villains, that ever existed in any city. Pera has long been known as the head-quarters of intrigue and villany; and neither London nor Paris is said to be able to produce a proportionate number of daring ruffians. They seem to be the offshootings of the capitals of Europe; and it is no wonder that the Turks despise the nations whom they represent. Of the total amount of the population the most conflicting estimates have been formed, varying from about 230,000 to upwards of a million. Mr. *Reid* says that the population of the city and suburbs was stated to him, by an Armenian who had good means of information, to be, at the end of the year 1838, in round numbers, 845,000; of whom 500,000 were Turks; 200,000 Armenians; 100,000 Jews; 28,000 Greeks; and 18,000 Franks and other strangers. But, besides the human inhabitants, there is another class of occupants which form one of the wonders of Constantinople. The dogs are not the property of any one, but are supported by all. Their litters are never destroyed; they are the only scavengers, and may be constantly seen prowling along the edge of the water in search of bodies that may be washed ashore. The dogs are never domesticated, and mosques and their inclosures are carefully guarded from their intrusion. They are susceptible of the plague, but hydrophobia is unknown among them. They have all their peculiar districts, where they observe the most rigid police among themselves; and, should a vagrant invade his neighbours' territory, the whole party immediately assail him.

The receptacles for the dead are not the least interesting or important objects in Constantinople;

they are far more picturesque and commodious than those for the living, and occupy hardly less extent of ground. The people of every creed have distinct cemeteries. Those of the Moslem population are distinguished by the dark cypresses with which they are planted, and by their turbaned stones of white marble. A cypress is always planted at each Mussulman's grave; and, as no grave is opened a second time, their burial grounds have become vast forests, extending for miles round the city and its suburbs. Multitudes of turtle doves frequent these gloomy abodes, and hold a divided sway with bats and owls. Burying within the city is strictly prohibited. The favourite burial place on the European side is the cemetery of Eyoub; but there are also large cemeteries between Cassim-Pasha and Pera and Galata, and along the outside of the western city wall. The cemeteries of Scutari are, however, the largest, the most beautiful, and the most celebrated. The principal one occupies a very large space of ground to the south of the town, and is richer in monuments of illustrious and distinguished men than any of the cemeteries of Constantinople, or of the other villages. Scutari stands on the sacred soil of Asia, and the Turks having a presentiment of their expulsion from Europe, prefer being buried on this holier ground, where they shall be safe from the infidel's tread. The plane, the mulberry tree, and the terebinth or turpentine tree, shade the cemeteries of the *rayahs*, or Christian subjects. The cemetery of the Armenians is pre-eminently beautiful. Beyond Pera are extensive cemeteries belonging to every race.

Constantinople was founded by a colony of Greeks about 658 years n. c., and bore for nearly a thousand years the name of *Byzantium* (Latin, *Byzantium*), derived from Buzas or Byzas, the leader of the colony. Byzantium, however, in its greatest extent, occupied only the two most easterly of the seven hills. In the year 328 of the Christian era, Constantine the Great founded at Byzantium a new city, which was destined to rival Rome, and called it *Roma Nova*; but his own name ultimately prevailed as its designation. For eleven centuries it remained the capital of the eastern portion of the Roman empire; till it was taken by storm, in 1453, by the Turks under Mohammed II., who made it the capital of his empire, and thence his successors have fixed their almost uninterrupted abode.

A number of villages, villas, castles, and palaces line the shores of the Bosphorus, forming so many appendages to the metropolis. These our limits permit us only to name. Commencing from Fındıklı, on the European side, we find *Dalmabakche*, *Beshik-tash*, *Orto-kiuy*, *Arnaout-kiuy*, *Babec*, *Roumeli-hissar* or castle of Europe, at the narrowest part of the channel, *Paltu-liman*, *Steneh*, *Yeni-kiuy*, *Kalender*, *Therapia*, *Chefeh-kiuy*, *Buyuk-dereh*, *Sarıyeri*, *Yeni-mukula*, *Roumeli-kavak*, *Buyuk-liman*, *Kazibjee fort*, and *Roumeli-fanaraki* or European lighthouse. On the Asiatic side, commencing from Scutari, we find *Kous-Goundjok*, *Starros*, *Beglerbeg-kiuy*, *Chengel-kiuy*, *Vani-kiuy*, *Anadolı-hissar* or Castle of Asia, at the mouth of a rivulet called *Giuksoo* or the Sweet Waters, *Kandlıh-kiuy*, *İndjir-kiuy*, *Beikos*, *Yalı-kiuy*, *Sultanich*, watering-place, *Omourjeri*, *Unkariskillesi* or the Emperor's steps, *Fort Joucha*, behind which rises the *Joucha-dagh* or Giant's Mountain, *Anadolı-karak*, ancient *Genosse Castle*, *Keteli-liman*, *Philbournou Pılar-bournu*, *Anadolı-fanaraki* or Asiatic lighthouse. Besides these, we may mention the *Bagtche-kiuy* and *Belgrade*, to the north-west of Buyukderch, *Sekeri-kiuy*, *İerli-kiuy*, *Demirehi-kiuy*, *Kila* or *Kilia*, and *Sombre-kiuy*, to the north; and *Bourgourli-kiuy*, to the eastward of Scutari. In the Sea of Marmora, between 5 and 12 miles S.E. of the city, are the PRINCE'S ISLANDS, a group of picturesque and beautiful hills, rising abruptly from deep water. They are nine in number, and are much resorted to in summer by the *rayahs*, or Christians of Constantinople.

ADRIANOPLE (OR *Andrinople*, the *Ederneh* of the Turks), the first Ottoman capital in Europe, and now reckoned the second city of the empire, is situate partly on a hill and partly on the banks of the Tundja, at its confluence with the Maritza, in an elevated plain, 135 miles W.N.W. of Constantinople. It has now the appearance of desolation; the streets are covered with grass, and the houses seemingly deserted. The only objects of interest are the mosque of Sultan Selim II., which is regarded as the most magnificent temple of Islam, but built in the usual form, with a massy dome in the centre, and four very elegant minarets; and the bazaar of Ali Pasha, 300 paces long, and presenting a more striking appearance than any of the covered bazaars of Constantinople. Adrianople was built by the Roman emperor Adrian, from whom it takes its name; it is the residence of a British consul; and its population is vaguely estimated at 100,000. *Demotica*, on the Maritza, 30 miles S. of Adrianople, is a flourishing town of 15,000 inhabitants, the see of a Greek archbishop, and noted for its manufactures of fine pottery, silk, and wool. *Enos*, on the south side of a bay at the mouth of the river, has 7000 inhabitants, and may be considered as the port of Adrianople.

The other principal places in Roumelia are: *Philippopoli* (*Flibie* of the Turks), a large town with 30,000 inhabitants, 90 miles W.N.W. of Adrianople, and noted for its manufactures of silk, cloth, and cotton. *Tatar-bazardjik*, 23 miles W. of Felibe, on the great road from Belgrade to Stamboul, is a large town with 10,000 inhabitants. *Eski Sagra*, at the foot of the Balkan, in the midst of well-cultivated fields, has manufactures of carpets, and 18,000 inhabitants. *Kaisanlik*, in the defiles of the Balkan, has 10,000 inhabitants. *Ishimo* or *Selinno*, near the important pass of the Irongate, 60 miles N. of Adrianople, has an important fair, and manufactures of woollen cloth, fusils, carbines, and rose water. Population 20,000. *Ovroundjoca* is important for its trade and its fair, which is frequented by merchants from Asia Minor, Armenia, the Crimea, Russia, Germany, and Poland. *Kirkhissa*, 30 miles E. by N. of Adrianople, is the capital of a liva, and is inhabited by numbers of Jews, who furnish a great part of the butter and cheese consumed at Constantinople. *Gahipoli*, at the northern entrance of the Dardanelles, on the west side of the strait, is a large town, the capital of the eyalet of the Jezayrs, with 17,000 inhabitants, and a great trade. It is also noted for excellent leather. *Rodosto*, a large trading town on the north side of the Sea of Marmora. *Saloniki* (ancient *Thessalonica*), the most commercial city in European Turkey after Constantinople, is situate at the head or northern extremity of the large bay to which it gives its name. It is noted for its manufactures of leather, cotton, carpets, silk, copper, steel, and iron; it is the seat of a Greek archbishop, a grand molla, and the grand hakim of the Jews, a sort of high-priest of that people, who are here very numerous. Population about 70,000. *Iendiye Vardar*, west of Saloniki, is noted for its industry, and extensive plantations of tobacco; population 7000. In its vicinity are the ruins of *Fella*, the birth place of Alexander the Great. *Karaveria*, 35 miles W. of Saloniki, is noted for cotton and dye works, and marble quarries. *Iodina*, 46 miles N.W. of Saloniki, near or upon the site of the ancient *Edessa*, the first capital of Macedonia, and the burial place of her kings. It is now the see of a Greek bishop. *Seres*, a large town, a few miles west of lake Takinos, with manufactures of cotton, wool, and tobacco, is the centre of the cultivation and trade of cotton in European Turkey. *Orphano*, a commercial town on the bay to which it gives its name. *Drama*, a thriving town, with manufactures of calico and tobacco, 72 miles E.N.E. of Saloniki, in the vicinity of which are the ruins of *Philippi*, where was fought the great battle which decided the fate of the Roman world, 42 n. c. *Monastir* or *Bitoglia*, 95 miles N. by W. of Saloniki, a large town with 15,000 inhabitants, is the residence of the Roumeli-valley, or master of the police of all Roumelia. *Kastoria*, 85 miles W. of Saloniki, on the west side of a beautiful mountain lake, is the see of a Greek archbishop. Its vicinity is inhabited by the *Kastareses*, a mixed race of Servian and Wallachian origin. In the valley of the Vardar: *Uskup* or *Scopia*, the capital of a liva, and the see of a Greek archbishop, is noted for its buildings, its fine situation, and its tanneries; population 10,000. *Koprili*, *Kiuprudhi*, *Keupeurleu*, or *Keuprudhi*, a small town of 4000 inhabitants, is noted for its stone bridge over the Vardar. *Istib* or *Istip* (ancient *Stobi*), a small town noted for its iron and steel works. *Karatota*, a straggling town noted for an argentiferous copper mine,

and for the manufacture of copper vessels and utensils. In the upper basin of the Struma, or *Karasu*: *Kustendil* or *Ghiustendil*, a small town with sulphureous warm baths, and 8000 inhabitants, is the see of a Greek archbishop. *Dupinja* (*Dupnizza* or *Dobnitsa*), in a high valley east of Kustendil, is noted for its iron mines; *Stromza* or *Strumnitsa*, or *Ostrounja*, formerly noted for its fortifications, is now known only for its thermal springs; *Petrovich*, noted for excellent tobacco. *Melinik*, the see of a Greek archbishop. In the basin of the Morava; *Pristina* or *Prishtina*, on the river Ibar, a considerable town with 10,000 inhabitants, is the residence of the inspector of the mines of Macedonia, and the see of a Greek bishop. *Kosora*, 10 miles N. by E. of Pristina, is a small town noted for two great battles gained by the Turks in 1389 and 1448, and for the monument of Sultan Murad I. who was killed there. *Nova Berda* is noted for the silver mines in its vicinity. *Frana* is noted for its forges and manufacture of scythes and arms.

The gulfs of Contessa and Saloniki are separated by a large peninsula, the ancient *Chalcidice*, which subdivides into three, and projects far into the Archipelago. The most northerly of these is the celebrated Mount *Athos*, now called by the Greeks *Agion Oros*, and by the Franks *Monte Santo* (both names meaning *Holy Hill*). It forms a mountainous ridge 25 miles in length, and 4 in breadth, rising abruptly from the water; and having its lower parts covered with forests of oak, pine, and chestnut. Near the S.E. extremity, the summit reaches to the height of 6349 feet above the level of the sea, in N. lat. $40^{\circ} 10'$, and E. long. $21^{\circ} 20' 30''$. From a remote period the mountain has been occupied by a number of Greek monks, who live in a sort of fortified monasteries, of which there are about twenty in the Peninsula. The ecclesiastics not only cultivate the ground, and plant vines and olives, but also rear vast numbers of bees, whose wax they export to a large amount, from the port of *Alcara*, on the east side of the Peninsula. The isthmus which connects the Peninsula with the continent is about a mile and a half across and only 15 feet above the level of the sea. It still retains traces of the canal dug through it by Xerxes, King of Persia, for the passage of his fleet, B.C. 480.

2. *Thessaly*. *Yeni-shehr* (ancient *Larissa*), a large town on the south bank of the Salambria, which, before the war, had a population of 30,000, and was one of the most flourishing towns in Turkey. It is noted for its manufactures of silk, cotton, leather, and tobacco, and for its red dye, is the centre of the trade of Thessaly, and the see of a Greek archbishop. It has a fine bridge of ten arches. *Trikkala*, *Tricala*, or *Tirhala*, 36 miles W. of Larissa, a considerable town, is the residence of the Pasha, governor of the province, and the see of a Greek bishop. To the westward are the defiles of *Agrafa*, leading into lower Albania, and the *Metora* (high places), a series of monasteries built on scarped and isolated peaks, to four of which the ascent is made by a rope and basket. They are formed of natural caverns, or of chambers cut in the rock. The number was formerly 24, but is now reduced to ten. *Tournavos*, a small town, is noted for the manufacture of light stuffs, of silk and cotton tissue, known in commerce by the name of *bourres de la Grèce*. *Ambelakia*, in the vale of Tempé, is a large town with 6000 inhabitants, most of whom are employed in the manufacture of the red cotton thread, which is considered the best in Turkey. *Faba* or *Babu-hassan*, whose inhabitants are employed in the same branch of industry, but are exclusively Mahometans. *Tharsula* or *Sataljik*, 23 miles S. of Larissa, is memorable for the victory gained by Cæsar over his rival Pompey; and is still important for the industry and trade of its inhabitants, who amount to 5 or 6000. *Zagora*, a village near the sea, is noted for the cultivation of silk; it formed, or still forms, a sort of republic, governed by its own laws, and acknowledging only the authority of the Sultana Valdi. *Folo*, a small town, which gives its name to a gulf, and represents the ancient *Demetrias*. *Tikeri* or *Trikirri*, a small town with a fine harbour, at the entrance of the Gulf of Volo. Due north of Larissa, about 30 miles distant, is the celebrated Mount *Olympus*, now called *Elymo* or *Olympo*, also *Lacha* or *Lakha*, a giant mass, which rises with two peaks, named St. Stephano and St. Elias, to the height of 9754 feet above the level of the sea, in N. lat. $40^{\circ} 5'$ and E. long. $22^{\circ} 21'$. The ridges forming its southern base are separated from the ridges of *Ëta*, by the vale of Tempé, a deep gorge, through which the Salambria has forced its way to the sea.

3. *Albania*. *IOANINA*, *IANINA*, *YANINA*, or *YANIA*, a large well-built town, occupies a picturesque situation on the western side of the large mountain lake to which it gives its name. It is an open town, but commanded by two strong citadels, the one of which occupies a peninsula in the lake, and the other, named *Litharitsa*, a scarped rock in the centre of the town. *Ioanina* is celebrated in modern times as the residence of Ali Pasha, the Vizier of Albania, under whose rule it attained a great degree of prosperity, and a population of 30,000; but these are now reduced to a few thousand Albanians and Jews. The other principal towns of Southern Albania are: *Mezzovo*, *Konitsa*, *Premthi* and *Klissura*, noted for their fortifications; *Argyro-Castro* or *Ergir-Kastri*, *Delvina*, *Delbino* or *Delvino*, *Philates* or *Philoti*, *Par-mithia*, *Souli*, so celebrated for the long struggle of its inhabitants, the Sulistes, against Ali Pasha; *Arta*, *Salagora*; *Prevesa*, at the entrance of the Gulf of Arta, and near the site of the ancient *Nicopolis*, built by Augustus to commemorate his victory at Actium; *Parga*, *Butrinto*, *Chimera* or *Kimera*. In Middle Albania: *Arlona* or *Falona*, with a good harbour, *Tepele*, the birth-place of Ali Pasha, *Ducates*, the chief town of the numerous Albanian tribe of Jajps, *Berat* or *Arnaut Beligrad*, *Elbasan* or *Ibassan*, *Durazzo* (ancient *Durrachion* or *Dyrrachium*), a small town with a harbour on the Adriatic. In Upper Albania: *Ochrida* or *Ochri*, a considerable town on the north side of a large mountain lake, drained by the river Drin; *Dukagjin*, the capital of a liv; *Perre-endi*, *Friareudi* or *Perzerin*; *Alesio*, *Alise* or *Leuch*, a considerable town with a harbour, at the mouth of the Drin, and containing the tomb of the famous Scander-beg; *Croia* or *Ak-Serai*, whose castle, now demolished, was Scander-beg's residence; *Scutari* (*Iskanderi* of the Turks, *Scodrr* of the Albanians, *Sondra* of the Illyrians), a large, fortified, and flourishing town, at the south end of a large lake, in the bottom of a warm valley, with a population of 20,000; *Dulcigno* (Turkish *Ölgen*), a small seaport, formerly the resort of corsairs or pirates, who infested the Adriatic; *Antivari* (*Tivari* of the Turks, *Bar* of the Illyrians), a seaport town, with 6000 inhabitants, and a considerable trade in salt and oil.

4. *Bulgaria*. *SOPHIA* (*Traditza* of the Bulgarians), a large town, situate in the midst of high mountains, between the rivers Isker and Nissava, 390 miles W.N.W. of Constantinople, on the high road to Servia, with celebrated baths, and 46,000 inhabitants. *Ichtiman*, a small town at the entrance of the famous pass of the Balkan named *Soubu-Derbend* or *Trayan's Gate*, from the remains of a gate attributed to that Emperor. *Sannakof*, a small town in a high valley, noted for its mines and flourishing works in iron; in the vicinity of which is the defile named *Kiz-Derbend* (Girl's Pass), 35 miles N.E. of Sophia. *Bergoracz* or *Berkofia* is noted for a rich silver mine, 48 miles N. of Sophia. *Mastophapalanka*, and *Nizza* or *Nissa*, both noted for their fortifications, in the valley S.W. of Sophia. *Shumla* (*Sekoumou* or *Choumla*), a large town 110 miles N. by E. of Adrianople, is distinguished for the industry and commerce of its inhabitants, who amount to 18 or 20,000. It is situated in the centre of a convexity or rent of the chalk beds which occupy this part of Bulgaria, and which have been mistaken by geographers for offsets of the Balkan. It contains a citadel and redoubts on the chalk hills, which have enabled the Turks more than once to make an obstinate defence, and to prevent the passage of the Russian armies in this direction. *Ruthuk*, a large fortified town on the south bank of the Danube, with a population of 30,000 Turks, Greeks, and Armenians, who carry on a considerable trade with Vienna in indigo, corn, and cloth. *Silistria* or *Dridra*, a large fortified town on the Danube, with 20,000 inhabitants. Its fortifications were completely repaired and extended by the Russians, who kept possession of it for several years after the peace of Adrianople, in 1826, as a key to Turkey; but a late traveller (*Spencer*) calls it "an ill-fortified town, now in a most

ruinous state." *Nicopolis*, on the Danube, a fortified town, occupies a picturesque situation, partly on the brow of a range of chalk cliffs, and partly in a narrow valley. Population 10,000. *Sistova* (*Sestov* or *Schistab*), a large town of 20,000 inhabitants, on the Danube, with tanneries, manufactures of cotton, and a flourishing trade. *Widdin* or *Yidin*, a large fortified town, also on the Danube, with 20,000 inhabitants, and considerable trade. In eastern Bulgaria are: *Bazardjik* (Little Market), a small trading town in an important position; *Varna* or *Warna*, on a small bay of the Black Sea, a fortified town, which defied the Russian arms, till lost in the late war by the purchased treachery of its governor, Yusuf Pasha. *Nassova* and *Hirsora*, both on the Danube; *Isak-chi*, midway between Ibrail and Ismail, where the Russians used to place their pontoons for the passage of the river in their wars with Turkey; *Toultscha*, a fortified town at the separation of the Sulinian and Georgian arms of the Danube. To the south and east of Shumla, *Karnabat* and *Paradisi*, places rendered important by their position on the great military roads through the defiles of the Balkan; and *Demir-kapi* (the Iron Gate), a celebrated defile leading from Islivno in Roumelia, to Stareka in Bulgaria.

5. *Bosnia, Croatia, and Turkish Dalmatia*.—*BOSNA-SERAI* (*Serajero* in Illyrian), a large town on the Miglizza or Miliaska, an affluent of the Bosna, stands on an elevated plateau, surrounded with woody mountains. It is inclosed by walls 12 feet thick, and the upper city is defended by small forts. The town contains a palace built by the Sultan Mohammed II., numerous mosques and baths, and about 70,000 inhabitants, who not only carry on a great trade, but also manufacture, to a large extent, military arms, metal plates, iron and copper utensils, goldsmith work, wool, cotton, and leather. It is the head-quarters of the principal hereditary captains who govern Bosnia under the Sultan, whose vizier a Pasha of three tails, resides at *Traunik*, a small town, with a citadel and 8000 inhabitants, 50 miles N.W. of Bosna-Serai. In the immediate vicinity of the latter are the baths of *Serajersko*, and a few miles further to the north and north-west, *Varesch*, *Fissoko*, and *Kressevo*, small places, noted for their forges and iron mines. The other principal places of Bosnia are: *Vraduk* and *Maglai*, towns on the Bosna, with strong citadels; *Ponitzza*, a village near Traunik, with rich iron mines; *Touzlu*, noted for its rich salt springs; *Srebrenik*, the capital of a sandjak; *Zucornik* or *Isornik*, a large town, with 14,000 inhabitants, and lead mines in its vicinity; *Jaicza*, a small town, with a citadel, and a nitre manufactory, and formerly the residence of the Catholic kings of Bosnia; population 2000; *Banialouka*, a large, busy, and commercial town on the Verbas, with 15,000 inhabitants, is one of the principal fortresses of Bosnia. In Croatia are: *Bihacz* and *Nori*, small fortified towns on the Unna; *Kamengrad* and *Starai Maidar*, noted for their forges and iron mines, and also for a silver mine at the former. *Behir* or *Ottoman Gradisca*, and *Brod*, fortified towns on the Save. In Dalmatia: *Mostar*, on the Narenta, a small fortified city, with 4000 inhabitants, and noted for a bridge of a single arch of 300 feet span; *Lieno*, a town with 4000 inhabitants, on the great road from Austrian Dalmatia to Bosnia, which renders it a place of considerable trade; *Trebigno*, a fortified city, the see of a Catholic bishop, with 10,000 inhabitants.

6. *SERVIA*, formerly a province of the Turkish empire, is now a sovereign principality, acknowledging the supremacy of the Sultan, and paying a tribute. It has an area of about 12,000 square miles, and 380,000 inhabitants. In the beginning of the present century, Czerny-Georges, a Servian in the service of Austria, formed the design of freeing his country from the Turkish yoke, and raised an insurrection, which was continued for several years, till he was taken and beheaded by the Pasha of Widdin. After his death the war was still continued; but at length the Turks, finding it beyond their power to reduce the rebels, agreed to resign Servia to a native governor, who should have the management of its internal policy, while the Sultan should still controul its external relations. Milotseh Obrenovitch, a man who had risen to distinction during the troubles, was chosen prince by the chiefs of the nation assembled at Kragojevacz, whose election was confirmed by the Sultan, and the dignity guaranteed to him and his heirs; but he has been deposed by the senate, and the government seems to be at present in a very unsettled state. The country is nevertheless said to be improving with silent but astonishing rapidity, and to have already made immense progress in public instruction, administration, order, and industrious activity. The only town of any importance is *Belgrade*, at the confluence of the Save and the Danube, and on the right bank of the latter river. It is a large but decayed town, presenting a most picturesque appearance, from the number of its domes and minarets peering from among the dark cypresses with which they are surrounded. The town is inclosed with half-ruinous walls, gates, and towers, and has a citadel built on a bold promontory, once considered the bulwark of Turkey on this side, but now completely neglected and falling to decay. It has a Turkish garrison, and a Pasha dependent on the Vizier of Silistria. The seat of the Servian government is sometimes at Belgrade, and sometimes at *Kragojevacz*, 75 miles to the S.E. *Semendria*, the former capital of Servia, has fallen completely to ruin. *Gladova* or *Scabi Glad-ora*, a very small and miserable Wallachian town, in the north-eastern corner of Servia, is only remarkable as the place where the navigation of the Lower Danube commences below the Irongate. In its vicinity are the remains of the bridge erected across the Danube by the Emperor Trajan, to facilitate the subjugation of Dacia, now consisting only of a solid shapeless mass of masonry on each side, and of 13 pillars or piers in the bed of the river, which are visible at low water. The distance between the two abutments is 3900 feet. Higher up the river is a small island, containing the fortress of *New Orsova*, belonging to the Turks. *Hasan Palanka*, 12 miles S. of Semendria, a small fortified town. *Kruschevacz* or *Alajahissar*, nearly in the middle of Servia, is the see of a Greek bishop, and has a castle where several sovereigns of Servia have resided. *Schubacz*, a small fortified town on the Save. *Novi Bazar*, or *Ami Bazar* (Newmarket), a large fortified town, with 7 or 8000 inhabitants, is the chief town of the district of Raseia. *Missa* is a fortified town, with 4000 inhabitants, and the see of a Greek bishop.

7. *WALLACHIA* extends along the north side of the Danube, from New Orsova to the mouth of the Sereth, and northward to the Carpathian mountains, which separate it from Transylvania. Its greatest length is about 275 miles, and its greatest breadth 130; the superficial area is about 30,000 square miles, and the population amounts to 950,000. This province, and Moldavia were, till lately, ruled by governors, with the title of *Hospodar*, chosen from the Greeks of Constantinople, and vested with regal authority; the choice, however, was determined by purchase. By the treaty of Bukharest, in 1812, the Russian Czar acquired the right of interfering in matters connected with the religion of the people, and in cases of outrages committed by Turkish officers against the Christian subjects in the principalities; and by the treaty of Adrianople, in 1829, this power of interference was so greatly extended, that they are now completely under the controul of the Czar, and little else than Russian provinces. To the Sultan they pay a small annual tribute, and he still appoints the *Hospodar* for life, from a list of nominees presented by the boyars or nobles, and prepared of course at the dictation of Russia. The government, however, is of the worst possible kind; every department is in miserable disorder; the people are divided into two classes of tyrants and slaves; and the country is ill cultivated and thinly inhabited by a wretched population. *Bukharest*, the capital, is a large town with 80,000 inhabitants, situate on the navigable river Dombroviezza, in an extensive marshy plain. It has few or no manufactures, but a considerable trade. The other remarkable places are: *Tergovist*, formerly the capital, but now almost in ruins, with a population reduced from 30,000 to 5000; *Plowesti*, a large town, with a well frequented fair; *Waleni* and *Kimpuria*, frontier towns north of Bukharest, with custom-houses, and noted for the rock salt which is dug at *Slanikul* near the former, and at *Okna-*

Teleaga near the latter; *Giurgevo*, a commercial town, composed chiefly of huts, on the left bank of the Danube, opposite *Rutshuk*; *Ibrail* or *Brailow*, on the left bank of the Danube, 15 miles above the mouth of the Sereth, was once a fortress of some celebrity, though now demolished; but a new town is rising out of the ruins, and the inhabitants carry on a very considerable trade in exporting raw produce. To the west of Buharest are: *Ardjisch* or *Kurtea d' Arjish*, a small town, noted for a monastery, the church of which is considered the finest in Wallachia. It stands on the great road to the Rothen-thurm pass, leading through the mountains into Transylvania. *Krajova*, a small but regularly-built and flourishing commercial town, with 8000 inhabitants. *Iglav*, a small commercial town above the confluence of the Alouta with the Danube. *Rimnik*, a small town on the Alouta, near the northern frontier, with a very rich salt mine, that of *Okna-mare*, in its vicinity.

8. MOLDAVIA adjoins Wallachia to the north-east, being separated from it by the river Sereth and its affluent the Milkov; and is bounded on the east and north by the river Pruthi, which divides it from Bessarabia, and on the west by Transylvania and the Buckowine. Its extreme length is 20 miles, and its extreme breadth 110; its area 16,000 square miles, and the population 450,000. The government is exactly on the same footing as that of Wallachia, and the country is as ill governed, and in an equally wretched state. The principal towns are: *Iassy*, the capital, a large town, with 40,000 inhabitants, situate on a height near the river *Bachliu*; *Galacz* or *Galatz*, a large wooden-built town on the Danube, may be considered as the port of both principalities. It is said to contain already 20,000 inhabitants. It carries on a great trade, chiefly in exporting the raw produce of the country, as tallow, haricot beans, corn, cheese, barrel staves, wax, flax, hemp, wool, bestial, skins and hides, wine, &c. The principal articles of import are iron, olives, cotton, sugar, and coffee. Vessels of 300 tons come up to the quay. *Niamtz*, near the north-western frontier, is noted for its picturesque situation and a large monastery, containing an image of the Virgin in massive silver, which is visited annually by great numbers of pilgrims. *Okna*, 98 miles N.W. of *Galacz*, in a valley with rich salt mines, whose productiveness rivals the best in Europe.

9. CANDIA (*Kriti* or *Kirid* of the Greeks and Turks, the ancient *Creta* or *Kretè*), is a large island, forming the southern limit of the Archipelago, about 160 miles long, varying in breadth from 6 to 35, and containing an area of 3200 square miles. It is almost wholly covered with rugged and barren mountains, which increase in elevation towards the west, where they are snow-capt even in June. *Ida*, now *Piloroti*, the loftiest peak, rises in the centre of the island to 7674 feet above the level of the sea. The mountains abound with grottoes and caverns, one of which, at the foot of Mount *Ida*, answers in essential particulars to the ancient accounts of the famous labyrinth. The mountains are clothed with woods of oak, chestnut, walnut, and pine; the plane, cypress, myrtle, wild olive, vine, carob, aloe, arbutus, Indian fig, and many fine fruits and vegetables, grow spontaneously; and the ground is covered with aromatic herbs. The wild boar, wolves, and goats are met with in the forests; game is plentiful; birds of prey are numerous; and reptiles are few. The chief productions are, oil, silk, wine, raisins, carob, valonia, wool, oranges, lemons, wax, honey, linseed and almonds, cotton, flax, &c. The pastures are good, and cattle abundant, but the exportation of them is prohibited; wheat, barley, and oats are grown, but not in sufficient quantity for home consumption. The manufactures are few and inconsiderable; the principal article is soap, of which there are 24 works, producing annually about 3000 tons. The roads are nearly impassable, even for mules. Population, in 1839, 158,000, of whom 100,000 were Greeks and 41,000 Turks. Crete has been possessed for several years by the Pasha of Egypt, but is now restored to the Sultan. The principal towns are *Candia*, *Retimo*, *Khania* or *Canea*, and *Splakia*. There are several small islands along the coasts, the principal of which are *Stan-dia*, opposite *Candia*, and *Gozo*, on the south-west coast.

As further illustrative of Turkish Geography, the explanation of the following list of words of frequent occurrence may be useful.

Aghach, or Agadj, <i>a tree.</i>	Egri, <i>crooked.</i>	Koulassi, <i>a tower.</i>
Ak, <i>white.</i>	Eski, <i>old.</i>	Kopri or Kupri, <i>a bridge.</i>
Altun, <i>golden.</i>	Ghenl, ghenl, gol or kol, <i>a lake.</i>	Kutchuk, <i>little.</i>
Bactche, or Bagtché, <i>a garden.</i>	Grada, Grade, <i>a fortress.</i>	Liman, <i>a bay.</i>
Bala, <i>upper.</i>	Gumish, <i>silver.</i>	Maden, <i>a mine.</i>
Balkan, <i>a chain of hills.</i>	Hissar or Hisar, <i>a castle.</i>	Menzil, <i>an inn.</i>
Bashi, <i>a head.</i>	Ieni or Yeni, <i>going, new.</i>	Oosch, <i>high.</i>
Bazaar, <i>a market.</i>	Ilijah, <i>hot springs.</i>	Ovah, <i>a plain.</i>
Bendt, <i>a reservoir.</i>	Jik, <i>sign of diminutive.</i>	Palanka, <i>a stockade.</i>
Bourna or Burun, <i>a cape.</i>	Kaleh, <i>a castle.</i>	Phanar or Fanel, <i>a light-house.</i>
Bunar, <i>a spring.</i>	Kapi or Kapousi, <i>a gate.</i>	Planina, <i>a chain of hills.</i>
Buyuk, <i>great, large.</i>	Kara, <i>black.</i>	Sari, <i>yellow.</i>
Chai, <i>a river.</i>	Kasbah, <i>a market town.</i>	Serai, <i>a palace.</i>
Dagh (Tag), <i>a mountain.</i>	Khanah, <i>a house.</i>	Shehr, <i>a town.</i>
Davan, <i>a mountain-pass, or range of mountains.</i>	Keban, <i>a gorge, a pass.</i>	Skollessi, <i>steps, a landing-place.</i>
Demir, <i>iron.</i>	Kelisch or Kelisah, <i>a church.</i>	Sou or Su, <i>a water, or river.</i>
Denghiz or Dengis, <i>a sea, or lake.</i>	Kendi, kieni, kiroy, koi or kui, <i>a village.</i>	Tel, <i>a mound.</i>
Derali, Dereh or Dere, <i>a valley.</i>	Kizil, <i>red.</i>	Tuzlah, <i>a saltern.</i>
Deir, <i>a convent.</i>	Koom, <i>stony plains, deserts.</i>	Yeni, <i>going, new.</i>
Diyar, <i>towns.</i>		Yeshil, <i>green.</i>

KINGDOM OF HELLAS, OR GREECE.

ASTRONOMICAL POSITION.—Between $36^{\circ} 15'$ and $39^{\circ} 10'$ N. latitude, and $20^{\circ} 40'$ and $26^{\circ} 3'$ E. longitude.

DIMENSIONS.—Extent from N. to S. 180 miles, and from E. to W., including all the islands, 300 miles; superficial area about 20,000 square English miles.

BOUNDARIES.—*Northern*:—Albania and Thessaly, or the Turkish provinces of Ioanina and Triklala. On the other sides, the Mediterranean Sea.

GENERAL ASPECT.—The kingdom of Hellas is composed of three distinct portions of territory: 1. *Hellas proper*, a long tract of hilly country, extending about 185 miles from east to west, with a breadth nowhere exceeding 50 miles, between Thessaly and Albania, and the Gulfs of Lepanto and Egina; 2. *The Morea*, so called from its fancied resemblance in form to the leaf of the *morus* or mulberry-tree, and named by the ancients *Peloponnesus*, or the *Island of Pelops*, a large peninsula, 137 miles in length, by 135 in its greatest breadth, but of very irregular form, and connected with the mainland of Hellas by the *Isthmus of Corinth*; 3. *The Islands*; which See.—The general aspect of the country is characterized by a very singular distribution of its mountains, which are usually placed neither in parallel chains, nor in massive groups, but are so disposed, as to enclose large basins or circular hollows. The country is thus marked out into distinct districts, calculated to become the seats of small communities, such as we find the States of ancient Greece to have been. Some of these basins terminate at the coast, and seem to have been formed by the retiring of the waters of the sea, as those of Athens, Argos, Laconia, Messenia, and Elis. Others are completely surrounded by a rampart of mountains or high ground, except at one point, where the accumulated waters of the valley have made for themselves an outlet; such are those of Bœotia and Arcadia. Phocis, or central Hellas, is one of the most rugged districts, being occupied almost entirely by the branches and declivities of Mounts Ceta, Helicon, and Parnassus. Bœotia is a large circular valley, enclosed by Parnassus on the west, Helicon on the south, Cithæron on the east, and by a range of high ground on the north, while a low ridge running from north to south divides it in two. The lake of Topolias, ancient Copais, which occupies the bottom of the western and larger division, receives all the waters of the district, which it send off by subterranean passages to the sea on the north-east. In summer the lake has the appearance of a green meadow covered with reeds; but the country has been more than once inundated in consequence of obstructions in the subterranean outlets. The country is very fertile, but is higher and colder than Attica; it is often covered with thick fogs; and from the abundance of its marshes is very much exposed to malaria. Attica, which adjoins Bœotia to the south-east, is comparatively arid and barren, is hilly rather than mountainous, but is peculiarly distinguished by the dryness and elasticity of the atmosphere, and the beauty and serenity of its climate. In general, Western Hellas has a physical character different from that of the eastern provinces. It consists chiefly of long valleys opening to the south, and rising towards the mountains on the north.

The *Isthmus of Corinth*, which connects Eastern Hellas with the Morea, is occupied towards the north by high rocky hills, which render it strong as a military post; but in the south, where its breadth is about four miles, the surface is lower, rising only about 150 or 200 feet. The Morea consists of an elevated central plateau or valley, and of five separate maritime regions formed by the exterior declivities of the mountains which surround Arcadia, and divided by their spurs or branches. The central valley of Arcadia, so famed in pastoral poetry, is high and cold, often covered with fogs, and subject to malaria. Most of its waters are carried off by the single channel of the river Roufia; but it has sometimes suffered from partial inundations. Argolis, lying in a semicircle round the gulf of Nauplia, embraces but a small portion of level country, which, however, is remarkably rich, but very unhealthy. Laconia consists of a long valley opening to the south towards the gulf of Kolokythi; of a mountainous region, extending south-eastwards from Arcadia to the Cape of St. Angelo, ancient *Malea*; and of another ridge of mountains in the south-west, terminating at Cape Matapan. Messenia, which forms the south-western portion of the Peninsula, consists partly of a large plain or river valley, opening to the gulf of Koroni, and partly of a hilly region lying between that valley and the western coast.

Elis, on the west, and Achaia, on the north coast of the Morea, are in general hilly, with numerous small river valleys, but rather dry. The Cyclades and the other islands in the Archipelago are almost all steep and rocky; Eubœa is traversed throughout its whole length by a ridge of hills, and is separated from the mainland of Eastern Hellas, by a very long channel or strait, so narrow at the middle as to be spanned by a bridge.

The mountains which cover so large a portion of Greece are partly wooded, and partly naked; the woods are more abundant on the west side, and less frequent on the east. The low country susceptible of tillage probably does not amount to two-fifth parts of the surface, and not more than a twelfth part of it is actually under cultivation. It is generally bare of wood; and the want of inclosures, the profusion of weeds and brushwood, the thinness of the population, and the ruinous condition of the few cottages, combined with the crumbling remains of the noble structures of antiquity, give it a deserted, desolate, and melancholy aspect. Towards the end of summer, the hills and fields appear parched; yet Greece combines in the highest degree every feature essential to the finest beauties of landscape, with the exception of large rivers; and travellers of taste have wanted words to describe the magnificence of the views which it affords. It is the combination of its towering mountains and rich sheltered plains, with so many spacious and beautiful inland seas and bays, broken by headlands, encircled by mountains, and studded with islands, that makes Greece surpass in picturesque beauty every other country in Europe, and perhaps in the world. The effect of such scenery, aided by a serene sky and a delightful climate, on the character of the Greeks, cannot be doubted. "Under the influence of so many sublime objects, the human mind becomes gifted as by inspiration, and is by nature filled with poetical ideas." Greece consequently became the native country of taste, science, and eloquence, the chosen sanctuary of the muses, the model of all that is graceful, dignified, and grand in sentiment or action.

CLIMATE. — The climate is variable in character, but generally very mild; the winter, indeed, is so temperate, that it frequently passes over without any frost. In ordinary winters the thermometer rarely falls below the freezing point; and during the greatest cold it never falls more than 6° or 8° below it. Snow is scarcely ever seen on the low plains; on the loftier mountains it generally begins to fall about the middle of October, but the summits are not permanently covered till the latter part of November. The summer's heat is considerable and is continued; almost every year it attains its maximum of 104° ; but this high temperature does not continue for more than one or two days. In July and August the heat almost daily exceeds 86° ; and, as the nights at this season are not cool, and there being scarcely any rain to refresh the air, the heat would become nearly intolerable, were it not for the sea-breeze which sets in generally before noon, and produces so powerful an effect, that there is occasionally more heat at seven or eight o'clock in the morning, than at mid-day, when the wind is blowing. Rain seldom falls in summer; from the first of July till the first of October, an extraordinary dryness prevails; and it often happens that there is not a single day's rain in July and August. Autumn, winter, and the beginning of spring constitute the rainy season; but the heaviest rains fall at the end of autumn and the beginning of winter. December and February are usually the most stormy months; January is often very fine. Storms in summer are of rare occurrence, except in mountain districts; the season for tempests is the close of autumn and the beginning of winter; but it cannot be said that storms are frequent. Hail is scarcely known. Clouds are seldom seen in summer; and it is not unusual for a whole month to pass without a cloud, except on the loftiest mountains; and even there they are infrequent. Mount Delphi, however, and St. Elias in Eubœa, are almost constantly covered with clouds. During summer, the wind frequently blows from between the north and the east for fifteen days together, or even a month; it is warm, and seems to occasion disease. The south winds, on the contrary, are refreshing and salubrious. The wind is often very strong at Athens; and during the heat of summer it blows the dust and sand even into the houses, and walking is rendered very disagreeable. Earthquakes are common in the season of the violent rains; but they are usually very slight, and are sometimes scarcely felt. At Athens, during the three years 1833-4-5, there were the average number of 87 days of rain, and eleven in which there were storms. The mean temperature was $60\frac{1}{2}^{\circ}$. (*Climat de la Grèce; par M. Peytier, Bulletin de la Société de Géographie; Juin 1837.*) But the local diversities of the country have a great effect in modifying the characteristics of the climate; M. Peytier's observations apply chiefly to Attica and the eastern districts of the Morea. In Attica, which, being freely exposed to the sea-breeze, has somewhat

of an insular climate, the winter sets in about the beginning of January. About the middle of that month snow falls, but is seldom seen for more than a few days. Gentle rains fall about the middle of February, after which spring commences. In the beginning of March the vines and the olives bud, and the almonds are in blossom; in May the corn is reaped. In the interior plains and valleys, which are encircled by mountains, and cut off from the direct influence of the sea, the winters are much colder, while the summers are comparatively warmer. At Tripolitza, in Arcadia, the snow has been found 18 inches thick in January, with the thermometer at 16° Fahrenheit; and it sometimes remains on the ground for six weeks. In Bœotia likewise, it sometimes lies for several weeks to a great depth; while the summer is there hotter than in Attica. The coolest weather in all parts of Greece is accompanied by a north-east wind; the north and north-west winds are serene and dry. The zephyr or west wind is famed for its balmy softness; the south-east, south, and south-west winds are all humid, and the east wind still retains its character of a morning breeze, as described by Aristotle. The sirocco is sometimes felt, blowing from the south-east, and producing its usual effects on the human constitution, a feeling of oppression, a dull headache, with general lassitude, and uneasiness in the limbs. There are few diseases peculiar to Greece; but the country suffers greatly from malaria, which prevails chiefly in August and September, and produces fevers; even Attica, though it possesses a dry soil, is not exempt from this infliction. These fevers occurring frequently, destroy the constitution, and produce goitres and scrofulous diseases. Coughs, catarrhs, and apoplexies are prevalent in some districts; and elephantiasis and leprous affections are more common than in other countries. The plague occurs at irregular periods, and has sometimes made great ravages. (*Holland, Hobhouse, Clarke, Pouqueville, &c.*)

SOIL AND VEGETATION.—The most common cultivated products, are wheat, barley, maize, and rye; oats in small quantity; rice in marshy spots; mullet, peas, beans, tares, sesamum, anise, cotton, and tobacco; and, notwithstanding the most wretched system of agriculture, the produce is large. The most fertile districts are the plains of Bœotia, Sicyon, Argos, Messenia, and Arcadia. In Arcadia wheat yields twelve for one; in Argos, ten; at Eleusis, twelve. The produce of good soils, in favourable seasons, is generally estimated at ten or twelve for one; and that of the best soils, in very favourable seasons, from fifteen to eighteen for one. The soil of Attica is too light for wheat; and consequently barley, as in ancient times, is the prevailing crop. Cotton is cultivated to a considerable extent, principally in Bœotia and the Morea, and is a more profitable, but more precarious crop than corn, as it requires clear sunshine, copious dews, and light rains, to make it succeed. Tobacco is cultivated only to a small extent. The olive is cultivated throughout Greece; but that of Attica is still distinguished, as in ancient times, by its superior excellence. It requires a dry soil, a sheltered situation, and a warm exposure, and therefore is not adapted to the rich moist plains of Bœotia and Thessaly. Vines are cultivated on a small scale; but the vines have an unpalatable harshness, owing to the resin and the lime which are mixed with them. The Corinthian grape or currant is almost peculiar to the Morea and the Ionian Islands; it is found in the greatest perfection along the southern shores of the gulf of Lepanto, on some points of the opposite coast, and in Cephalonia, Ithaca, and Zante. It succeeds best in plains near the sea, with a western exposure, and prefers a dry, light soil. Madder grows wild in abundance, and is cultivated in Bœotia. The mulberry-tree has become an object of increasing importance, and the produce of silk is considerable. The fruit-trees which grow in the fields and gardens, besides the vine and the olive, are the almond, pomegranate, orange, lemon, citron, banana, fig, peach, apricot, quince, plum, and others of a more common kind. The date-tree grows, but does not bear fruit. The melons, water melons, and gourds are excellent, and form a considerable part of the subsistence of the inhabitants. Their culinary vegetables, of which they have no great variety, are spinach, artichokes, cabbage, cauliflower, carrots, beans, lettuce, and celery. The forests produce the oak, kermes-oak, cork-tree, pine, larch, ash, plane, aloe, wild olive, sweet chestnut, the manna-ash, the turpentine-pine, various dye-woods and plants, and a vast variety of flowers and aromatics.

ANIMALS.—The wild animals are the bear, wolf, lynx, cat, boar, stag, roebuck, goat, badger, marten, fox, weasel, jackal, hare, and hedgehog. The bears are rarely seen, but the wolves are numerous; and to guard the flocks and cattle from their ravages, dogs of a fierce and powerful breed are kept. Hares are very abundant, but are not much hunted. Of birds, there are very large vultures, various kinds of falcons and owls, the cuckoo, roler, kingfisher, ducks of several sorts, the domestic goose and

turkey, storks, partridges, pigeons, quails, snipes, teal, blackbirds, goldfinches, nightingales, boccaficas, swallows, martins. Greece, as it abounds in mountains covered with herbage, is eminently a pastoral country; and the management of sheep is better understood than any other branch of rural economy. The modern breeds of sheep, however, have declined much from the ancient in beauty and value. The mutton is but indifferent, the wool is of inferior quality, and the weight of the sheep is only from thirty to fifty pounds. The flocks of Arcadia and Hellas, especially those which feed on Parnassus, are considered the best. A black-woolled breed is very common. As in Spain, the flocks migrate, at the approach of winter, from the inland mountains to the low valleys near the sea, and return to the hills in April. Goats are also numerous, and are shorn along with the sheep. Beeves are less abundant; the oxen are chiefly used for labouring, and the cows for breeding; and as both the Greeks and Turks prefer mutton to beef, the number of sheep killed is incomparably the greater. In all parts of the Morea, buffaloes, which are handsome animals with fine skins, are used in husbandry, and, when unfit for labour, are killed for food. The horses of the Morea are little to be admired for their beauty, but are active, vigorous, and sure-footed; asses are numerous, but diminutive in size; and mules are used as beasts of burden. Bees are objects of considerable attention. Honey is everywhere abundant; that of Hymettus in Attica still maintains its ancient pre-eminence, and is there produced in great abundance. Silk worms are also becoming an object of increasing importance; and the produce of silk is already considerable. The country is infested by troublesome and even noxious insects, more particularly in the low plains, and during warm weather. The seas, lakes, and rivers abound with a variety of fish, and seals are found on the coast.

PEOPLE. — The dominant race are the HELLENES, whom all Europeans concur in calling GREEKS. The Hellenes claim to be the descendants of the ancient people who rendered this country so illustrious by their writings, their deeds of valour, and their cultivation of the fine arts; but they have unquestionably received a large proportion of barbaric blood, particularly by intermixture with the Sclavonians. They are a rude and unenlightened people, with all the vices of slaves, and few redeeming virtues; but they are ingenious, active, enterprising, and restless; and, now that they have recovered some degree of national independence and civil liberty, they may be able to turn their talents to account in acquiring a portion of the civilization and learning of Western Europe. Their language is the *Romaic*, so called from the word *Romaioi* or Romans, a name which they assumed, or acquired, during the period of their subjection to the Roman Empire of Constantinople, and from which their Turkish name *Roumi* is also derived; but they have now abjured it, and resumed the ancient names of *Hellenes* and *Hellas* as the proper designations of themselves and their country. The Romaic bears a much closer resemblance to the Hellenic, or ancient Greek, than the Italian does to the Latin; and it has even been said by a very distinguished modern Greek scholar that if we take the Attic as a standard, the ancient Doric differs as much from it as the present living dialect. (*Encyc. Brit.*, art. *Greece*, p. 741.) The Hellenes all belong to the Greek Church, which is one of the most corrupted branches of Christianity; but having no sovereign pontiff, and no decrees of infallible councils to obstruct it, it is more susceptible of amendment than the Catholic Church of the West. The priests freely admit, and are thankful for the Bible. This circumstance, together with the general progress of unfettered education, will no doubt soon be productive of the happiest effects upon the present character of the Hellenic nation, which, at best, is rather equivocal.

The *Arnauts* or *Albanians* are very numerous; of whom colonies or parties have settled from time to time in various parts of Hellas. Nearly all of them belong to the Greek Church; and they have, with few exceptions, preserved their national manners, dress, and language, though many are likewise able to speak Romaic. They chiefly inhabit Attica, Bœotia, Phœcis, Argolis, and the islands of Hydra, Spezzia, Coulouri, and Andro; but have also several villages in Arcadia, Achaia, and Messenia. In the rest of the Morea, in all the other islands, in Etolia and Acarnania, a great part of Thessaly, and Lower Macedonia, the population is exclusively Greek. The *Mainotes*, who inhabit the ridges and valleys of Mount Taygetus, in the peninsular promontory between the gulfs of Kolokythi and Koroni, boast of their descent from the ancient Spartans; and the histories of Leonidas and Lyeurgus, who are represented partly as saints and partly as robbers, still figure in their popular traditions. They are a wild and lawless race, living under a sort of patriarchal feudal government exercised by hereditary chiefs, and seem to be really the descendants of the free Laconians,

who were enfranchised from the dominion of Sparta, by a decree of the Roman senate. The total amount of the population, in 1837, was 926,000.

GOVERNMENT.—The Government is what has been usually called a constitutional monarchy. Greece formed a part of the Turkish empire till 1821, when the people revolted, and after a long and severe struggle, succeeded, with the aid of the European powers, in achieving their independence. Their country was formed, in 1832, into the new KINGDOM OF HELLAS; and Otho, a son of the King of Bavaria, appointed King. The Council of State is composed of three vice-presidents, 17 councillors in ordinary, and 14 special councillors. In 1834 Athens was declared the capital.

EDUCATION.—Education, it may well be supposed, has been till lately almost entirely neglected; even the priests were among the most illiterate of their profession; but, under the new government, considerable progress has been already made towards the establishment of a general system of literary and scientific instruction. A university has been established at Athens, with thirty professors; where there is also a gymnasium or preparatory college, with eight professors, attended by upwards of 800 students; a high-school, divided into four classes, and attended by a crowd of youths anxious to obtain certificates of competency to enter the gymnasium; a normal school for the education of teachers; two lancasterian schools for boys and one for girls. There are in other parts of Greece four gymnasia, 12 primary schools, and about 180 lancasterian schools, supported partly by the Government, and partly by the communes. The system, however, has scarcely yet been extended to the villages; in many places the teachers are not competent for their duties, and there is a general want of school-books. In no country is education more prized by the people; but to educate them generally and fully must be the work of time.

ADMINISTRATIVE DIVISIONS.—Since 1833 the kingdom of Hellas has been divided into twenty-four *nomoi* or governments, and seven sub-governments. These are: 1. *Argolis*, with the sub-government of *Spezzia* and *Hermia*; 2. *Hydra*, with *Troezen* and *Calauria*; 3. *Corinth* and *Sicyon*; 4. *Achaia*; 5. *Kinaitha*; 6. *Elis*; 7. *Triphilia*; 8. *Messenia*, with the sub-government of *Phytia*; 9. *Mantineia*; 10. *Gortynia*; 11. *Lacedæmon*; 12. *Laconia* (*Maina*), all in the Morea; 13. *Ætolia*, with the sub-government of *Trichonia*; 14. *Acarmania*; 15. *Eurytonia*; 16. *Phocis*; 17. *Phthiotis*, with the sub-government of *Locris*; 18. *Attica*, with the sub-governments of *Megaris* and *Egina*; 19. *Boeotia*; 20. *Eubæa*, with the sub-government of the adjacent islands; 21. *Tinos* and *Andros*; 22. *Syros* and the *Cyclades*; 23. *Naxos* and *Paros*; 24. *Thera* (late *Santorini*), with the islands about it.

RELIGIOUS ESTABLISHMENT.—Since 4th August 1833, the established religion of the State has been that of the "Orthodox Oriental Apostolic Church," of which the king is the head. The Government of the church is vested in a Holy Synod, which meets annually, and consists of a president and five members, with two secretaries. There are thirty-three bishops of the Greek Church; and four Roman Catholic bishops at *Naxos*, *Tinos*, *Syra*, and *Santorini*.

FINANCES.—The revenue for 1838 amounted to 14,853,277 drachms, or £541,525 sterling; and the expenditure to 16,467,131 drachms, or £600,363 sterling, leaving a deficiency of £58,838. The public debt amounts to about £7,000,000 sterling.

ARMY AND NAVY.—The number of troops on the peace establishment is 12,326 men of all arms; and the ships of war amount to 32, carrying 190 guns and 2400 men.

PRODUCTIVE INDUSTRY.—Manufactures on a large scale are unknown; only such coarse fabrics, with the implements, furniture, and utensils required by a people so little advanced in civilization as the Greeks have hitherto been, were produced in the country with more or less skill, according to circumstances. Greece, however, indented by arms of the sea, and encircled by numerous islands, seems naturally adapted to become a commercial country; and its trade has always suffered less from the wretched policy of its various governments, than either its agriculture or its manufactures. The people are gifted in a peculiar degree with the practical sagacity and address requisite for conducting mercantile transactions; and, finding the paths to distinction, and the pursuit of national objects closed against them under the Turkish government, their activity and enterprize flowed into the channel of commerce; so that even before the revolution, the Greek merchants had branches established in some of the principal cities of Europe, and sent their ships to America. They now carry on an extensive maritime trade, not only with all parts of the Medi-

terranean, but also with more distant countries. Their exports consist principally of raw produce, as cotton, corn, tobacco, olive oil, timber, wool, silk, honey, currants, figs, hides, dye-stuffs, drugs, with some wine, cheese, butter, live-cattle, capots or cloaks, coarse woollens, and a few slight fabrics of silk and cotton. The imports from western Europe consist of manufactured goods, colonial produce, and peltry; from Turkey, coffee, flax, timber, rice, drugs, and some manufactured articles. There are in the country no roads, in the English sense of the word; and the transport of goods and travellers is effected on the backs of horses, asses, and mules.

CITIES, TOWNS, AND REMARKABLE PLACES.—**ATHENS**, the capital of the kingdom, and one of the most celebrated cities in the world, is situate in the province of Attica, about five miles from the coast of the north-eastern side of the Gulf of Egina, in North lat. $37^{\circ} 58'$, and East long. $23^{\circ} 46'$. It is built in a plain surrounded by hills, and watered by the rivers Cephissus and Ilissus; and has been almost entirely rebuilt since 1834, when it became the seat of Government. New streets have been laid out, the old streets levelled and widened, and many houses erected in the modern style; but most of the town still consists of narrow winding lanes, with mean, clay-built houses. The principal public buildings are the royal palace, a large new structure of the Ionic marble; the mint; the royal stables; a military hospital, and a barrack. The population already exceeds 20,000, of the most heterogeneous description of persons of all nations. Athens is the seat of a university, and has a gymnasium, a high school, and other institutions for education. Great efforts have been made to secure the public health, by clearing and repairing the ancient sewers, and draining the marshes which have been formed by the rivers. The antiquities of Athens are, however, still the principal object of attraction. The ancient *acropolis*, or citadel, is built on a rocky eminence rising abruptly from the plain, and contains within its walls the remains of the Parthenon, the glorious temple of the tutelar deity and name-mother of the city, the virgin goddess Pallas-Athené; and another temple, almost entire, of the same goddess in her character of *Polias*, or protectress of the city; a beautiful Ionic structure, connected with the temples of Erechtheus and Iandrosus. The entrance to the acropolis is at its west end, which was once adorned with a splendid gateway, called the Propylæa, of which several portions still remain. Beyond the gate was a small temple of Victory, the fragments of which have been recently discovered under ground, and the building completely restored. In the lower town is the temple of the demigod Theseus, built after the year 469 B.C., when his bones were brought to Athens from Scyros, by Cimon the son of Miltiades. This is a Doric peripteral building, perfectly entire, except the roof, which has been recently restored; it is now converted into a museum or receptacle for antiquities. There are also the temple of the Winds, an octagonal tower, with figures of the winds on its sides; the monument of Lysicrates, called also the lantern of Demosthenes; the tribunal of the Areopagus; the Pnyx, or place of public assemblies; the ruins of the temple of the Olympian Jupiter, &c. Five miles from the city is the harbour of *Porto Leone* (ancient *Liræus*), where several large houses have been built, and some good streets lined with low but respectable houses. The harbour consists of a land-locked basin, with a narrow entrance, but with very deep water inside, and is large enough to accommodate a great number of heavy ships. The government are erecting a pier for extending the accommodation for vessels. The communication between Athens and the Piræus is formed by an excellent road, and omnibuses ply between them at all hours. On the adjoining promontory are the remains of the tomb of Themistocles. Twenty miles N.E. of Athens, are the village of *Marathon*, and the plain of *Marathon*, so celebrated for the victory gained there by the Athenians over their Persian invaders, B.C. 490; and 25 miles S.E. is Cape Colonna, the ancient *Sunium*, containing the remains of a temple of Pallas-Athené, from which the Cape derives its modern name of *Colonna* (pillar-cape). In the gulf westward of Athens is the island of *Salamis* (modern *Coudouri*), in the strait between which and the mainland was fought the great naval battle between the Greeks and the Persians in the year 480 B.C. On the coast of the gulf behind Salamis is the village of *Lepina*, containing the ruins of the temple of the goddess Demeter (called by the Romans *Ceres*), where were celebrated in ancient times the Eleusinian mysteries. Westward from Lepina, and also near the coast, is the ancient *Megara*, which was burned and demolished by the Greeks and Turks, during the late war, and is now little better than a mass of blackened ruins.

Lebadea or *Livadia*, the chief town of Boeotia, is situate on the summit of a rock, at the source of the river Hereyna, 50 miles N.W. by W. of Athens. It contained in the time of the Turks about 1500 houses. In the S.E. part of Boeotia are *Thiva* or *Thebes*, a poor village, on the site of the ancient *Thebe*, the city of Pindar, Pelopidas, and Epaminondas, of which scarcely a vestige remains; and *Kokla*, the ancient *Pluteæ*, now untenanted. About 40 miles N. by W. of Livadia, is the famous pass of *Thermopylæ*, a narrow defile between Mount Eta and the sea, leading from Phocis into Thessaly. *Castri*, 30 miles W. of Livadia, represents the ancient *Delphi*, so renowned for the temple and oracle of the god Phœbus-Apollo. *Takanti* or *Talanta*, 22 miles N.N.E. of Livadia, an episcopal city, with 5000 inhabitants.

In *Western Hellas* the only places worthy of notice are Lepanto and Missolonghi. *Lepanto*, called also *Nepakto*, and by the Turks *Ainabakhti*, the ancient *Naupactus* or shipbuilding-place, is a small fortified archiepiscopal city, with a harbour on the north side of the Gulf of Lepanto, near the entrance, and a citadel crowning the top of the hill, on the slope of which the town is built. *Missolonghi*, on the north side of a bay or lagoon of the Gulf of Patras, a small fortified town, is famed for the sieges it underwent during the late war of independence, and for the death of Lord Byron, which happened there in 1824.

In the *Morea*:—*Napoli di Romania* or *Nauplia*, the capital of Greece for several years, before the king removed to Athens, is a well-built city, strongly fortified, and possesses an excellent harbour; near the head of the gulf to which it gives its name. Nearly all the trade of the Morea centres here; consequently great activity prevails at the port; but its confined situation and the neighbouring marshes render it unhealthy. Its fortress of the *Palamed*, which has been called the Gibraltar of Greece, and deemed impregnable, stands on the top of a lofty and precipitous rock, 720 feet above the level of the sea, and is inaccessible on all sides except the east, where it is connected with a range of barren rocky hills. Another fortress, called *Itch-Kali*, is built on a peninsular rock rising above the town, at the foot of the *Palamed*. Before the removal of the court, *Napoli* contained 9000 inhabitants, but the number is now considerably reduced. To the west and north of Nauplia, and at the distance of a few miles, are the ancient cities of *Argos*, *Tiryns*, and *Mycenæ*. The first is a struggling town of ruinous houses, with a deserted citadel on the hill behind it, the celebrated *Larissa*. *Tiryns* has completely disappeared, but its citadel remains, a perfect specimen of cyclopean architecture, erected about the year 1379 B.C. Near the village of *Krabata* are the ruins of *Mycenæ*, once the capital of Agamemnon, built by the demigod Perseus about 1300 years B.C., and destroyed by the Argives about 466 B.C. The citadel still exists, occupying the top of a steep hill, and containing specimens of Hellenic masonry of various ages; the most ancient parts being in the same style as the walls of Tiryns. The treasury of Atreus, called also the tomb of Agamemnon, is built under the slope of the hill, and consists of a massy vaulted subterranean chamber, 47½ feet in diameter and 50

high, and connected by a door with a smaller chamber about 23 feet square. *Corinth* or *Korinth*, one of the finest cities of ancient Greece, was, during the late revolutionary war, reduced to ashes, and now presents only a mass of ruins, and a complete picture of desolation. A few new houses have recently been built, and lines marked out for the formation of new streets; but little progress has yet been made in restoring the city. It is situate in a very unhealthy plain, near the S.E. corner of the Gulf of Lepanto; but, being only 8 or 9 miles from the Gulf of Egina, it long formed an entrepot for the trade of Greece, merchants preferring to transport their goods across the isthmus, rather than sail round the stormy shores of the Peloponnesus. The citadel, called *Acrocorinthus*, is built on the top of a hill 1800 feet high, and is considered the strongest fortress in Greece next to that of Nauplia. The hill shoots up majestically from the plain, and forms a conspicuous object at a great distance; being seen from Athens, 44 miles in a direct line. *Patras* or *Padras*, a considerable town with 5000 inhabitants, on the north-west coast of Achaia, has been recently enlarged and almost rebuilt with wide regular streets, but is subject to fevers occasioned by malaria. *Vostitza*, a sea-port town with 2000 inhabitants, 20 miles E. of Patras. About 15 miles from Vostitza is the convent of *Megaspelion* (big cave), in the face of a precipice, with from 250 to 300 monks, who possess large landed estates, chiefly in Elis. In the church is a miraculous image of the Panagia, or All-holy virgin, said to have been the work of St. Luke. *Tripolitza*, formerly the Turkish capital of the Morea, and a flourishing town, with 20,000 inhabitants, in a cold plain, 3000 feet above the level of the sea, and 22 miles W. by S. of Nauplia, is now a heap of ruins, with not a single house or inhabitant remaining. The ruins of *Mantineia*, now called *Palaeopoli* (old town), are situate 8 miles N. of Tripolitza; and 13 miles S.W. of Tripolitza, near the banks of the Roufia, are the ruins of *Megalopolis* (big town), which was six miles in circumference, but of which little now remains except the theatre, still very perfect. Further down the river, about 13 miles from its mouth in the Ionian sea, are the ruins of the temple of the Olympian Jupiter, where the Olympic games were celebrated every fourth year by the assembled Greeks, and which once contained the statue of that god, formed by Phidias of ivory and gold, and considered one of the seven wonders of the world. *Kalamata*, the capital of Messenia, is a considerable sea-port town on the north side of the Gulf of Koroni. *Mavromati*, a wretched village of a few huts, stands on the site of the ancient *Messené*, 11 miles N.W. of Kalamata, and at the foot of the steep hill of *Rhione*. The ruins of Messenê are magnificent specimens of the grandeur and solidity of the Hellenic military architecture. *Navarino*, on the S.W. coast of Messenia, a fortified town near the southern entrance of a noble basin formed by the island of Sphagia (ancient *Sphacteria*), memorable for a battle fought on 20th October 1827, in which the Turkish and Egyptian fleets were destroyed by the combined British, French, and Russian squadrons, and which ended, in effect, the revolutionary war in Greece. *Navarino Vecchio*, the ancient *Pylos*, occupies a lofty promontory at the northern entrance of the bay. *Arcadia* (ancient *Kuparissia* or *Cyparissia*) is a miserable ruined town, on the north-west coast of Messenia, about a mile from the sea, on the narrow summit of a rocky ridge. It has some trade, but only an open roadstead for ships; on which account most of its exports are conveyed to the island of *Proti*, or *Prodano*, for shipment. *Sparta*, so renowned in the history of ancient Greece, and afterwards so long deserted, has been constituted the capital of the new province of Lacedæmon. Sparta is situate in a plain near the right bank of the Basili-potamo (ancient *Eurotas*), about 20 miles from the sea; a plan has been formed for rebuilding it, and some of the public buildings are already in progress. *Mistra* or *Misitra*, 3 miles N.W. of Sparta, was formerly a large Turkish town on the slope of a hill; but the upper town is now quite deserted, and the acropolis is in ruins. *Monembasia* or *Napoli di Malvasia*, on the east coast of Laconia, is a considerable town, on the south side of an insulated hill, which is connected with the mainland by a bridge. The island is only half a mile in length and about 300 yards in breadth, of which the town occupies about one-third, with the houses piled above each other, and a castle on the summit of the rock, but separated from the town by a perpendicular cliff. All the coast within sight of the town consists of uncultivable rocks.

ISLANDS.—The inhabited islands are:—*Hydra*, *Spezzia*, *Poros*, *Egina*, *Augistra*, *Silamis*, *Scopelos*, *Helidromia*, *Sciathos*, *Scyros*, *Syra*, *Tinos*, *Miconos*, *Andros*, *Cea*, *Thermia*, *Naxos*, *Paros* and *Antiparos*, *Siphnos*, *Seriphos*, *Cimolos*, *Milo*, *Polycaendros*, *Sicinos*, *Ios*, *Amorgos*, *Santorin*, *Anaphe*, *Astypalea*, *Eubœa*. *Egripo* (corrupted to *Negropont* by the Franks), the capital of Eubœa, a large town built on the site of the ancient *Calchis*, at the narrowest part of the Euripus, or Strait which separates Eubœa from the continent. It was formerly the capital of the Turkish eyalet of the Jezairs, the usual residence, and under the immediate command, of the Capudan Pasha; but many of the best houses are of Venetian construction. The strait is divided into two unequal parts, by a small square castle on a rock, which communicates with the Boeotian shore by a stone bridge, 60 or 70 feet long, and with the Eubœan shore by a wooden draw-bridge, 35 feet long. On the south side no vessel but boats can approach Egripo; on the north side there is no difficulty. Before the revolution Egripo contained 16,000 inhabitants. *Syra*, the capital of Syra, a large and rapidly-increasing commercial town, is built on a conical hill, which is covered to the top with white-washed buildings, and crowned by a monastery. The harbour is one of the best in Greece, with safe anchorage, and a good light-house. The population in 1827 was only 6000; in 1837 it had already increased to 21,000. Syra is a free port; and the principal exports are figs of the finest quality. *Arna*, in Andros, an episcopal city, with a seaport, and 5000 inhabitants. *Naxia*, in Naxos, the see of a catholic archbishop, and of a Greek bishop. *Antiparos* contains a famous grotto, or deep cave, formed naturally in the limestone rock. *Milo*, in the island of the same name, contains the remains of an unfinished amphitheatre, cyclopean walls, a temple of Venus, and other antiquities. *Hydra* is a singularly interesting city, rising in dazzling whiteness and beauty on the amphitheatric slope of a barren rock, on the west side of the island of Hydra. The streets are precipitous and uneven, but remarkably clean; and the quay is lined with warehouses and shops; the dwelling-houses are built in the most substantial manner. Several monasteries are perched on the cliffs, and the churches and religious establishments amount to 100, some of them possessing ornaments of great value. The harbour is neither spacious nor secure. A few fishermen and others, driven from the continent by the oppression of their Turkish rulers, first raised here the nucleus of a town; and numbers of other people from: Albania, Attica, and the Morea, crowded to it, till at length its population, in 1825, amounted to 40,000. The population does not now amount to more than half the number. In 1813 it possessed 375 vessels, with a burden of 45,000 tons, and 5400 sailors; but its trade was almost entirely ruined by the war of independence, in which its mariners took a principal part. *Spezzia* is built on the eastern shore of the island of the same name, at the entrance of the gulf of Nauplia, and contained, in 1825, 3000 inhabitants. The streets are better than those of Hydra, and the houses are equally good; the port is good and well-frequented; and the citizens are mostly engaged in commercial pursuits. They possess many fine vessels, and furnished sixteen ships, besides fire-ships, to the Greek navy during the late war. The climate is so salubrious that invalids are frequently sent thither for the restoration of their health; the women are esteemed the most beautiful in Greece. *Egina*, a newly built seaport town, in the island of Egina, in the middle of the gulf to which it gives its name, contains a museum, a library, and a school. The climate of the island is delightful, and the atmosphere is so pure, that epidemic fevers, the scourge of the Morea, are almost unknown in it. Egina was formerly celebrated for the richness and beauty of its ornaments, but almost the only remains consist of a few tombs, vestiges of wells, and a mosaic pavement. Near the S.E. end of the island, on the top of a hill of moderate height, are the ruins of the temple of Zeus Panhellenios (the Jupiter of all the Hellenes), consisting of 23 columns, still entire.

and the greater part of the architrave. These ruins are, however, thought by some antiquaries to be rather the remains of the temple of Pallas-Athené (Minerva).

GULFS, BAYS, STRAITS.—The *Gulf of Zeitoun*, the *Channel of Talanti*, and the *Channel of Egri-pò*, together, form the strait called by the ancients *Euripus*, which divides Eubœa from the mainland of Greece. The *Euripus* has been always famous for its tides or currents, which flow sometimes the one way and sometimes the other, with such force as to turn mills at Egri-pò, even in the face of a contrary wind; but the nature, extent, and periodical intervals of these currents are not yet exactly ascertained. *Gulf of Egina*, between Attica and Argolis. *Gulf of Nauplia*, in Argolis. *Gulf of Kolokythi*, and *Gulf of Koroni*, both on the south coast of the Morea. *Gulf of Arcadia*, on the west coast. *Gulfs of Patras and Lepanto*, between the Morea and Hellas. The latter is a land-locked gulf, extending about 75 miles E. and W., with a breadth of 10 or 12, having the *Bays of Corinth and Lira d'ostro* at its east end, the *Bay of Salona* on its north side, and communicating with the Gulf of Patras by a strait only about a mile across, which is defended by the two castles of Rumeli and Morca. *Gulf of Arta*. — (See *anté*, p. 596.)

CAPIES.—*Komiso*, *Kandili*, *Kili*, *Chersonisi*, *Doro*, *Mantelo*, and *Karysto*, in Eubœa; *Marathon* and *Colonna*, in Attica; *Skillo*, *Maleo* or *St. Angelo*, *Matapan*, *Gallo*, *Konello*, *Katakolo*, *Klarenza*, *Kologia* or *Papas*, in the Morea; *Bakuri* and *Skrophia*, in Western Hellas.

RIVERS AND LAKES.—The *Hellada* (Sperchins) drains a long narrow valley between Mount Ceta and Othrys, and falls into the Gulf of Zeitoun. *Macroptamo* (Cephissus) flows through Phocis and Bœotia into the lake of Topolias. *Asopo* (Asopus), in southern Bœotia, flows into the Channel of Egri-pò. The *Cephissus* and *Ilissus* flow through the plain of Athens into the Gulf of Egina. *Planitza* (Inachus) in Argolis. *Basili-potamo* (Eurotas) falls into the Gulf of Kolokythi. *Pymntza* (Pamissus) flows through Messenia into the Gulf of Koroni. *Pousi* (Neda) flows past Phigaleia into the Gulf of Arcadia. *Roufia* (Alpheus) drains the south-western part of Arcadia, and flows through Elis into the Gulf of Arcadia. Its principal affluent is the *Ladon*, from the north of Arcadia, where it has its source in the *Lake of Phonia* (Pheneos), which, being surrounded by mountains, emits its waters through a subterranean channel. *Iliaro* (Peneus) in the north of Elis. *Fidari* (Evenus), and *Aspropotamo* (Achelous), both in Western Hellas. The latter is a large river which rises in Albania, 100 miles north from its mouth. Besides the lakes already mentioned are: The *lakes of Umbrakia*, *Great Ozero*, *Little Ozero*, *Brakhori*, *Angelo-Kastro*, and *Sauravitza*, in Western Hellas. The *Lake of Zaraka* (Stymphalus), N.W. of Argos, and surrounded by mountains which divide its basin from that of the Lake of Phonia. This lake has been supposed to send its water by a subterranean channel to the Planitza.

MOUNTAINS.—(See *anté* p. 152-3.)

IONIAN ISLANDS.

The Ionian Islands form a sovereign state, consisting of seven principal islands, and a number of smaller ones adjacent, lying along the coasts of Albania, Hellas, and Morca. The names, dimensions, and population of the seven larger islands are stated in the following table:—

Names.	Length.	Breadth.	Area in Square Miles.	Population in 1836.	Relative Population.
Corfu,.....	41	19	227	65,107	287
Kephalonia (Cefalonia),..	30	18	348	63,197	182
Zakunto (Zante),.....	25	13	156	35,348	226
Santa Maura,.....	22	8	180	17,195	95
Thiaki,.....	14	3	44	9,644	219
Kerigo (Cerigo),.....	19	13	116	8,707	75
Paxo,.....	4	2	26	5,064	195
			1097	204,262	186

The smaller islands are: *Morera*, *Fano*, *Samothraki*, *Diaplo*, to the N.W., and *Fido* on the east side of Corfu; *Anti-paxo*, to the S. of Paxo; *Mexanisi*, *Kalamo*, *Kastus*, *Arkudi*, *Atoko*, S.E. of Santo Maura; *Korrigotto*, *Nadibus*, *Porri Vi*, *Porri*, *Oeo*, *Kouphenisi*, *Dragonera*, S. and S.E. of Cerigo. All the islands, both large and small, belong to the same great calcareous formation which prevails over Greece. Their surface is so remarkably mountainous that they do not contain a sufficient quantity of arable land to produce the corn required by the population; and, were it not for the vine, the olive, and the currant, which they produce abundantly, they could support but a small number of inhabitants. The climate resembles that of the neighbouring continent, except that the sea renders it more uniformly temperate and more humid. Snow often falls in winter; and lies on the mountains, but rarely on the plains. Sudden and furious squalls are frequent; and the sirocco or hot wind occurs at certain periods. The harvest is in June; earthquakes are very frequent, but not very destructive; malaria prevails in low situations in autumn; and the itch, which is common in some places, instead of being eradicated by medical means, is rather cherished by the people, from a strange notion that it is a preservative against the effects of the malaria. In other respects the climate is agreeable and healthy.

PEOPLE.—The people are of the same race as those of the adjacent continent; and the Ionians partake in the physical configuration of the Greeks. The complexion in healthy persons inclines to olive. Their eyes are almost universally brilliant and full, and generally dark; the hair generally brown or black; the beard copious; stature, middle-sized; constitution, sanguineo-choleric; gestures, vivacious; gait, erect and elastic; and their speech voluble and emphatic.

RELIGION.—The Greek church predominates, there being only about 3000 Roman Catholics, and 5000 Jews. At the head of the Greek church is a Protapapa, elected by ballot in an assembly of the clergy and nobles, and confirmed by the patriarch of Constantinople; the Catholics are under the charge of an archbishop. But both clergy and people are extremely unenlightened, and their religion consists of the grossest superstitions, which even the British government deems itself obliged to countenance.

EDUCATION.—At Corfu is a university, and also a seminary for priests of the Greek church. In each of the islands there is a "secondary school," maintained at the public expense, in which the ancient Greek and Latin, and the modern Greek, English, and Italian languages, arithmetic, and ele-

mentary mathematics, are taught. In the chief town of each island is a central school, supported at the public expense, for reading, writing, and arithmetic, and for training the village schoolmasters; there are, besides, district schools, on the same plan as the central, partly maintained by government and partly by private subscription. The district and village schools are under the superintendence of the head masters of the central schools; the whole being overlooked by an Inspector-general. The whole establishment for education is under the charge of the commission for public instruction. The number of public schools in the islands, in 1836, was 138, which were attended by 2949 scholars.

GOVERNMENT.—The government is one of the worst specimens of oligarchy or exclusive aristocracy; the authority of the state being vested in magistrates and councils chosen by the nobles only, to the exclusion of the mass of the people, and administered principally for their behoof. The Ionian islands formerly belonged to Venice; but at the peace of 1815 were placed under the protection of the King of Great Britain, who is represented by a Lord High Commissioner, and he again in each island by a President whom he appoints. The legislative authority is vested in an assembly of forty members, elected for five years, who meet in session every two years. The executive power is vested in a senate, composed of five ordinary members and a president, who are elected from the legislative assembly. The municipal government of each island is vested in a council of five members and a president. The judicial authority in each island is vested in three tribunals, a civil, a criminal, and a commercial; and there is, besides, in each a court of appeal; and petty courts, held by justices of the peace, for minor pleas and offences. At the seat of government is a high court of appeal, consisting of four ordinary members, two English and two Greek; and two extraordinary, namely, the Lord High Commissioner and the President of the Senate. Trial by jury does not exist. A new code of laws has been devised for the islands. The military defence is placed in the hands of the protecting sovereign, and the regular military establishment consists only of British troops, to the number of about 3300. There is, however, a corps of militia in each island. The general charge of preserving the public tranquillity being directly and immediately connected with the military establishment, the high police of the "United States of the Ionian Islands" is placed under the direct management of the Lord High Commissioner; the sovereign has the right to occupy the fortresses, and maintain garrisons; and the military force of the islands is under the orders of the British Commander-in-Chief. The average revenue is about £176,000 sterling; and the average expenditure about £177,000, besides the pay of the regular troops and munitions of war.

PRODUCTIVE INDUSTRY.—Agriculture is still in a very rude state, and the implements of husbandry probably as primitive as they were in the days of Ulysses. The olive is the principal product; the vine is generally planted in the plains and valleys, and corn on the declivities of the hills. In Corfu and Zante soap to the value of £12,000 is annually made and exported; and also considerable quantities of common earthenware. Silk shawl, coarse linens, coarse woollen blankets, and goat-hair carpets and sackings, are also manufactured. The amount of the tonnage of vessels entered in 1835 was 273,853, and cleared, 272,415, of which only 22,605 entered, and 23,475 cleared, were British.—(*Martin's Colonies*, &c. 591, &c.)

The principal natural productions of the islands; the number of acres cultivated and uncultivated; and the numbers of live stock, in the year 1835, are stated in the following table:—

Articles of Produce and Live Stock.	Corfu.	Cephalonia.	Zante.	Santa Maura.	Thiaki.	Cerigo.	Pazo.	TOTAL.
Wheat,.....	6,133	538	7,182	1,724	73	453	34	16,137
Indian Corn, Barley, Calamagrostis, and Barley and Wheat,.....	17,833	5,854	966	3,978	340	8,466	.....	37,437
Oats,.....	3,910	530	492	547	13	.....	.....	5,492
Currents,.....	.....	9,102	6,410	8	150	.....	.....	15,740
Olives,.....	185,660	3,985	16,766	1,203	212	513	11,000	219,339
Vines,.....	86,795	11,834	13,630	4,216	756	1,365	406	119,152
Cotton,.....	98	432	327	101	2	54	.....	1,014
Flax,.....	617	255	134	99	71	109	.....	1,310
Pulse,.....	1,392	856	64	555	68	1,595	.....	4,530
Pasture,.....	30,775	450	1,474	5,350	1,626	5,285	.....	41,960
Uncultivated,.....	30,896	189,785	53,869	97,436	3,137	61,685	5,200	420,151
TOTAL of Acres,....	364,139	223,622	101,314	115,217	6,488	79,525	16,640	885,262
Number of Horses,.....	4,106	2,220	3,330	2,462	765	1,010	295	14,189
" Beesves,.....	2,351	1,378	1,220	2,141	120	3,140	16	10,366
" Sheep,.....	21,708	26,962	13,156	12,096	4,134	16,900	2,910	95,950
" Goats,.....	16,524	14,668	8,07	20,072	6,554	2,910	23	68,826

TABLE shewing the Nature and Quantity of each kind of Produce, in 1836.

Articles of Produce.	Corfu.	Cephalonia.	Zante.	Santa Maura.	Thiaki.	Cerigo.	Pazo.	TOTAL.
Wheat,..... Bushels.	19,064	4,654	30,510	16,781	2,507	2,640	170	76,326
Indian Corn, &c. "	51,741	41,655	1,025	38,681	16,808	35,750	.....	185,660
Oats,..... "	12,963	3,584	1,050	4,884	434	.....	.....	22,915
Currents,..... Lbs.	.....	9,740,000	7,835,000	5,100	400,000	.....	.....	17,980,100
Olive Oil,..... Barrels.	85,246	2,729	9,520	1,342	1,280	195	12,907	113,219
Wine,..... "	55,042	41,100	48,770	35,443	6,196	20,010	586	210,147
Cotton,..... Lbs.	5,927	17,180	4,385	5,935	550	3,590	.....	37,567
Flax,..... "	26,523	13,159	5,610	15,085	11,495	3,070	.....	74,933
Pulse,..... Bushels.	5,342	7,340	1,100	5,473	2,268	1,855	.....	23,378
Salt,..... "	.....	.....	40,000	130,350	.....	.....	.....	170,350

—(From Tables of Revenue, &c. Colonies, 1836. Presented to Parliament 1839.)

CITIES AND TOWNS.—**CORFU**, the seat of government, situate on the east side of the Island of Corfu, in N. lat. $39^{\circ} 37'$, E. long. $19^{\circ} 56'$, is a fortified town, with narrow and irregular streets, and ill-contrived houses; a cathedral containing the body of its tutelary deity, St. Spiridion, several Greek and Catholic churches and chapels, a university, gymnasium, ecclesiastical seminary, and several primary schools. Population 17,000. Corfu has a citadel on a projecting rock, and two other fortresses, one of them on the Island of Vido, which, when the works now in progress are completed, is expected to be nearly impregnable. The harbour is safe and commodious; and Corfu is the principal seat of the foreign trade of the islands. *St. Gago*, in Paxo, contains 4000 inhabitants. *Santa Maura*, in Santa Maura, 5000; *Fathi*, in Thiaki, 2000; *Argostoli* and *Lixuri*, both in Cefalonia, the former with 4000, the latter with 5000 inhabitants. *Zante*, on the eastern side of the Island of Zante, is a large town, with an imposing appearance, on the face of a hill, and containing 18,000 inhabitants. Zante contains a large plain, bordered by mountains, and covered with vineyards and olive groves, presenting that appearance of luxurious fertility which has procured for it the name of *fiore di Levante*—the flower of the Levant; but recently it has suffered severely from repeated earthquakes.

MEDITERRANEAN SEA.

This great inland sea, which has been in all ages the principal theatre of the commercial and maritime transactions of the European and Western Asiatic nations, extends in a direction nearly E. and W. about 2350 miles, with a breadth varying from about 100 to 650 miles, and covering an area of about 1,000,000 of square miles. Its northern coasts are formed by Europe and Asia Minor; its eastern, by Syria and Palestine; its southern, by Africa; while towards the west it gradually diminishes in breadth till it terminates with the Strait of Gibraltar, only 13 miles across in the narrowest part. The depth varies considerably. The depth of the Atlantic, on the outside of the Straits, is from 50 to 60 fathoms, but the channel deepens as it proceeds eastward, until, a little within Gibraltar, it reaches 1000 fathoms, and soon after gets beyond soundings. The Mediterranean is also very deep towards its eastern extremity; but between Sicily and Africa it is only from 30 to 100 fathoms deep; there seeming to exist in that quarter a submarine chain or shoal, which may be considered as an extension of the rock formations of Italy and Sicily, with deep water on both sides. A strong current perpetually sets into the Mediterranean through the Straits of Gibraltar; and although there is an opposite eddy on each side, yet the reflux is not nearly equal to the quantity flowing inward. It receives also the surplus waters of the Black Sea, which flow with a constant stream through the Dardanelles; but the rivers which fall into it are the contributions of a smaller extent of territory than the river basin of any other inland sea, in proportion to its area. The disposal of the waters thus constantly flowing into it, is considered by some philosophers to be sufficiently accounted for by evaporation from so large a surface in a warm climate; while others, on the contrary, maintain that there is a submarine current flowing outward through the Straits of Gibraltar, and thus making room for the lighter waters of the ocean that flow in the opposite direction. Tides are but little felt. They are perceptible only in certain parts of the sea, and seldom rise more than six inches above the mean level. Mr. Trevelyan, however, ascertained, by a series of observations at Antium, in the summer of 1836, that the tides are perfectly regular, and rise there to 14 inches. In the more easterly parts of the Mediterranean the tides are shown by recent surveys to be much greater, though at the furthest west they may be scarcely perceptible. To the eastward of Sicily a tide is raised, which flows up the Adriatic, and rises in that comparatively narrow channel to nearly four English feet at low and full moon, and half that height at neap tides, alternately covering and laying bare the bottom of the Venetian lagoons. The Mediterranean being nearly surrounded by lofty mountains, at no great distance from its shores, is, in consequence, much exposed to storms, and to sudden gusts of wind, which raise short broken waves, more disagreeable, however, than dangerous to experienced seamen. In the western parts of the Mediterranean the temperature of the water below 200 fathoms is constantly about 55° Fahrenheit, which is much higher than that of the ocean in northern latitudes. The sea produces abundance of fish, the principal varieties of which are mentioned among the articles of productive industry of the countries along its shores. — (See *anté*, p. 138 and 139.)

RECAPITULATORY TABLE OF THE EUROPEAN STATES.

Name and Title.	Area in Square Miles.	Population.		Annual Revenue in Pounds Sterling.	Debt in Pounds Sterling.	Army or Contingent.
		Absolute.	Relative.			
I. EMPIRES.						
Austrian,.....	258,188	35,050,533	140	12,974,648	64,000,000	272,204
Russian,.....	2,000,000	52,943,000	26	14,200,000	40,356,000	730,300
Ottoman,.....	158,000	10,680,000	67	not known	not known	120,000
II. KINGDOMS.						
Great Britain, &c.,.....	118,734	24,028,345	202	45,000,000	810,000,000	109,000
France,.....	204,355	33,540,908	164	49,000,000	200,000,000	311,412
Prussia,.....	107,885	14,271,530	132	7,668,000	35,000,000	139,840
Belgium,.....	11,375	4,000,000	352	....	7,000,000	....
Netherlands,.....	11,897	2,859,111	240	....	....	....
Bavaria,.....	31,392	4,315,469	137	2,500,000	15,000,000	35,600
Saxony,.....	5,772	1,652,114	286	720,000	3,500,000	12,000
Hanover,.....	14,769	1,706,280	115	920,000	1,350,000	13,054
Wirtemberg,.....	7,632	1,634,654	214	941,400	3,000,000	13,555
Denmark,.....	21,887	2,055,000	96	1,540,000	14,000,000	24,867
Sweden,.....	170,240	2,985,000	17	1,687,200	....	32,694
Norway,.....	122,460	1,194,827	9	450,000	none	12,000
Spain,.....	179,465	11,964,000	69	10,000,000	Bankrupt	....
Portugal,.....	36,596	3,061,684	83	....	....	....
Sardinia,.....	29,050	4,470,000	150	2,913,000	6,000,000	35,200
Two Sicilies,.....	41,510	7,752,000	151	4,500,000	not known	37,750
Greece (Hellas),.....	20,000	926,000	46	540,000	7,000,000	12,000
III.						
States of the Church,.....	17,860	2,471,000	138	2,809,000	not known	17,700
Electorate of Hesse-Cassel,.....	4,439	812,540	183	497,000	250,000	5,679
IV. GRAND-DUCHIES.						
Baden,.....	5,918	1,261,482	213	1,086,000	2,000,000	10,000
Darmstadt,.....	3,761	782,671	208	548,000	1,300,000	5,679

Name and Title.	Area in Square Miles.	Population.		Annual Revenue in Pounds Sterling.	Debt in Pounds Sterling.	Army or Contingent.
		Absolute.	Relative.			
Schwerin.....	4,845	482,652	100	230,000	1,000,000	3,580
Strelitz.....	767	85,257	111	50,000	150,000	718
Oldenburg.....	2,400	261,154	110	150,000	....	2,829
Weimar.....	1,419	215,813	173	195,400	800,000	2,010
Tuscany.....	8,700	1,350,000	156	....	not known	4,500
V. DUCHIES AND PRINCEDOMS.						
Nassau.....	1,757	382,981	218	181,000	450,000	3,028
Brunswick.....	1,507	251,000	166	165,400	400,000	2,056
Coburg-Gotha.....	799	137,910	173	120,000	580,000	1,116
Meiningen.....	888	148,078	167	110,000	400,000	1,150
Altenburg.....	510	121,590	238	68,200	150,000	982
Anhalt-Dessau.....	340	160,945	179	50,000	80,000	529
Anhalt-Köthen.....	326	40,153	123	37,500	155,000	325
Anhalt-Bernburg.....	340	45,135	133	37,500	85,000	370
Reuss—Elder.....	145	30,041	203	14,000	24,000	223
Reuss—Junior.....	448	68,854	153	47,000	90,000	522
Schwarzburg-Rudolstadt.....	410	65,604	160	32,500	30,000	539
Schwarzburg-Sondershausen.....	359	51,080	150	24,000	25,000	451
Lippe-Deinold.....	437	76,730	175	49,000	70,000	691
Lippe-Schaumburg.....	206	27,600	127	21,500	48,000	240
Waldeck.....	461	56,000	121	35,000	140,000	519
Hohenzollern-Sigmaringen.....	383	42,870	110	30,000	120,000	356
Hohenzollern-Hechingen.....	138	21,000	152	12,000	20,000	115
Hessen-Homburg.....	166	23,000	138	18,000	50,000	200
Lichtenstein.....	53	5,880	111	1,700	....	55
Kniphausen.....	17	2,859	168	....	....	....
Parma.....	2,300	440,000	191	....	....	1,400
Modena.....	2,068	390,000	188	274,000	....	1,750
Lucca.....	420	145,000	345	....	....	680
Monaco.....	50	6,500	130	....	....	....
Moldavia.....	16,000	450,000	29	....	....	....
Wallachia.....	30,000	950,000	31	....	....	....
Servia.....	12,000	380,000	31	....	....	....
VI. REPUBLICS.						
Frankfort.....	91	54,000	593	63,300	708,000	479
Lubeck.....	142	47,000	333	43,200	375,000	407
Bremen.....	106	57,800	545	83,200	325,000	485
Hamburg.....	151	140,770	932	150,000	1,660,000	1,298
Cracow.....	493	120,000	243	....	....	....
Zurich.....	647	231,576	350	....	not known	3,760
Bern.....	2,583	400,000	154	....	....	5,824
Lucerne.....	600	124,521	207	....	....	1,734
Schweiz.....	350	13,519	38	....	....	602
Uri.....	420	40,650	91	....	....	236
Unterwalden.....	260	22,571	86	....	....	372
Glarus.....	281	29,348	104	....	....	482
Zug.....	185	15,322	180	....	....	250
Fribourg.....	496	91,145	183	....	....	1,240
Soleure.....	256	63,196	246	....	....	404
Basel.....	185	65,424	353	....	....	918
Schaffhausen.....	116	31,125	268	....	....	466
Appenzell.....	160	49,876	311	....	....	972
St. Gall.....	760	158,853	209	....	....	2,730
Grisons.....	2,540	88,506	35	....	....	1,600
Argau.....	499	182,755	364	....	....	2,410
Thurgau.....	267	84,124	315	....	....	1,520
Tessin.....	1,041	113,923	109	....	....	1,804
Vaud.....	1,190	183,582	155	....	....	2,964
Valais.....	1,675	75,798	45	....	....	1,280
Neuchatel.....	281	58,616	208	....	....	560
Geneva.....	91	58,666	615	....	....	850
Ionian Islands.....	1,200	210,000	175	....	....	....
St. Marino.....	27	8,000	256	....	....	....
Andorre.....	144	15,000	104	....	....	....
TOTAL.....	3,708,524	235,135,620	64			

ASIA.

GENERAL DESCRIPTION.

PHYSICAL GEOGRAPHY.

ASTRONOMICAL POSITION.—Between $1^{\circ} 20'$ and 78° N. latitude; and between 26° and 190° E. longitude.

DIMENSIONS.—The greatest length from N. to S., in the direction of the meridian, or from Cape Romania in Malaya to Cape Taimura in Siberia, exceeds 5300 miles; and the greatest breadth from W. to E. along the fortieth parallel of N. latitude, or from Baba Burun in Asia Minor to the east coast of Japan, is about 5600 miles. The superficial area is about 17,500,000 square English miles, or four times the extent of Europe.

BOUNDARIES.—*Northern*:—the Arctic Ocean. *Southern*:—the Indian Ocean. *Eastern*:—the Pacific Ocean. *Western*:—the Ural Mountains, and the River Ural, the Caspian Sea, the range of Caucasus, the Strait of Yenikaleh, the Black Sea, the Channel of Constantinople, the Sea of Marmora, the Dardanelles, the Archipelago, and the Levant, all which separate it from Europe; and the Isthmus of Suez and the Red Sea, which separate it from Africa.

GENERAL ASPECT.—The surface of this large continent is very diversified. The northern portion of it forms a plain rising gradually from the shores of the Arctic Ocean, intersected by a number of very large rivers, and exposed without shelter to the piercing blasts of the north. The southern portion, which stretches along the Indian Ocean, is composed likewise of comparatively level regions, exposed to the burning heat of the tropical sun; while the central region consists of a series of elevated plains and mountains, from which rivers flow in every direction to the neighbouring seas. This central region, however, is not, as was till recently supposed, a uniform table-land of great elevation, supported on all sides by lofty mountains; but appears, on the contrary, to be occupied by long ranges of mountains, with intervening plains and valleys, some of the latter of which have no great elevation. Among the numerous mountains which intersect the surface, four great chains or systems may be distinguished, stretching nearly parallel to each other, in the direction of east and west, or south-west and north-east, and named by modern geographers the *Altai*; the *Tecan-shan*; the *Kwan-lun* or *Quan-lun*; and the *Himalaya*. These, with their numerous ramifications, occupy the greater part of the continent.

MOUNTAINS.—The chain of *ALTAI*, properly so called, occupies a space of scarcely more than 7° of longitude; but the name is usually given to the northern boundary of a mountainous region which extends from the sources of the river Irtysh to the sea of Okhotsk. Between the Irtysh and the Chulym, the most easterly affluent of the Obi, or between the meridians 80° and 86° , the chain consists of an extensive mass of high rocks, furrowed by narrow valleys and rapid rivers. Its culminating point lies N.W. of Lake Ubsa; to the east of which the chain divides into three ranges, of which the middle takes the name of *Tang-nun*, and extends eastward to the lake Kossogol. The most northerly range is named *Sayan-kean*, or *Mountains of Sayan*; the most southerly, *Ulungom-ula*; and the three ranges, between 98° and 102° E. long., join the mountains which encompass the lake Baikal, and are usually called the *Baikalian Mountains*. Farther east a chain shoots eastward, under the name of *Kendei*, and the *Mountains of Dauria*, and afterwards joins the *Yablonnoi-Krebet* (chain of Apples), the *Khing-lun*, and the *Aldan Hills*, which, stretching along the west side of the sea of Okhotsk, under the name of *Stanoroi*, extend to the north-eastern extremity of Asia, and terminate at Behring's Straits. The mean latitude of the Altai is between 50° and $51^{\circ} 30'$; the name, which is said to mean *Golden*, has probably been given to it on account of its great metallic riches. Although the top of the chain is said by the Chinese to reach the Milky-way, yet probably no part of it attains a greater elevation than 11,500 feet. The highest part of the range, so far as is yet known, extends east and west between the Bukhtarma, an affluent of the Irtysh, and the Koksun, an affluent of the Obi. The most westerly of its higher summits, the *Holbounkha*, loses its snow in May, but is covered with it again by the end of July; farther east is a loftier summit, the *Skhishchebenukha*; but the highest is the *Bibekha*, or *Byekha*, which lies in the meridian of the Chinese military post of Chingistei, on the Bukhtarma, and rises, according to M. Gehler, who visited it in 1833, to about 11,000 feet above the level of the sea, and about 7000 above the surrounding mountains; it is covered with perpetual snow, which terminates, downwards, in immense glaciers. From this lofty mass a range branches off to the E.S.E., extending, as we have said, to the extremity of Asia; but the supposition that it formed the northern wall of a very high table-land is so far from the truth, that the steppes around the lake Zaisang, on the

south side of the chain, and certainly the steppes near the lake Balkashi, are not more than 1918 feet (300 toises) above the level of the sea. Westward from lake Zaisang the chain of Altai is prolonged, under the parallel of 49° or 50° , by a series of isolated hills and groups of small mountains, through an extent of about 540 miles, as far as the steppe of the Kirghiz, and ends abruptly about 10° to the eastward of the meridian of the Urals. Among the secondary chains connected with the Altai are, 1. The *Mountains of Kolyan*, between the rivers Irtysh and Biya, which are rich in gold and silver; 2. The chain which Humboldt proposes to call the *Great Altai*, whose culminating point is about 2° of latitude to the south-east of the lake Icke-Aral-nor, and which unites the Altai with the Tean-shan; 3. The *Tarbagatai* chain, which extends to the south-west of lakes Zaisang and Alaktougul, and separates them from lake Balkashi, for nearly 500 miles. In some places snow is said to lie on this chain during the whole year, which indicates an elevation of about 6000 feet. The chain is connected with the Altai by a series of low hills, running parallel to the south side of Zaisang, at the distance of about twenty miles. The Tarbagatai chain is considered as forming the north-western boundary between the Russian and the Chinese empires. The great volcanic mountains of Kamtschatka may either be considered as connected with the Altaian system, or, perhaps, more properly with the maritime chain to be afterwards mentioned.

The second great chain, called by the Chinese TEAN-SHAN (or in French THIAN-CHAN), and by the Türkee nations TENGRI-DAGI, both of which names signify sky mountains, or mountains which reach the skies, extends from west to east nearly along the 42° parallel of north latitude. The culminating point appears to be that mass of hills, remarkable for three snow-clad peaks, which lies nearly in the centre of Asia, upon the confines of Kansu, in the Chinese empire, and is celebrated by the name of *Bökhdä-üla* (Holy Hill), the *Bogdo* of Pallas, the *Sine-shan* (snow hill), and the *Pe-shan* (white hill) of the Chinese, about 85° E. long. From Bökhdä-üla the Tean-shan stretch eastward towards Barkoul, beyond which they suddenly fall to the level of the great desert of Cobi; but, after an interruption of about 10° of longitude, another chain, called *Gadjar* or *In-shan*, appears at the great bend of the Yellow river, following the same direction from west to east, which may be regarded as a prolongation of them. About 112° E. long. the Gadjar becomes confounded with a snowy chain called *Ta-hang*, and with a chain running north and south under the name of *Khinghan-üla*, which forms a union in this quarter between the Tean-shan and the Altai. The chain which may be considered as the principal, appears to stretch still further east, till it becomes connected on the one side with the *Mountains of Corea*, and on the other with the chain which extends along the coast of Manchuria. Westward from Bökhdä-üla, the chain of Tean-shan is prolonged, between Gulja (Ele) and Kuchu, and then between the lakes Temürtü and Aksü, to the north of Cashgar, under the name of *Müz-tagh*, or *Misart*. From the point where the Bolor-tagh crosses the chain at right angles, the Müz-tagh continues its course without interruption, under the name of *Afrah-tagh*, to the south of the Sihoon, towards Khojend and Uratpeppeth, in Ferghana. The chain of Asfrah, called also the ridge or chain of *Pamer*, separates the waters of the Sihoon from those of the Amu, and presents a group of lofty mountains, some of which are covered with perpetual snow. The chain then turns to the south-west, nearly in the meridian of Khojend, and in this direction, as far as Samarcand, is called *Ak-tagh*, or *Al-botom*; farther to the west, on the banks of the Kohik, it sinks into the plains of Bokhara and Mawer-ul-nahr. Besides the divisions of the chain already mentioned, there are several secondary ranges connected with the Tean-shan; as, 1. The *Ala-shan*, a chain which runs along the west side of the great bend of the Hoang-ho, and appears to connect the Gadjar with the northern part of the great nucleus of Hoho-nor, named *Nan-shan* or *Kilian-shan*, belonging to the chain of Kwan-lun; 2. The *Ala-tagh* or *Altai*, which extends northward from the Tean-shan into Turkestan, crossing the course of the river Chouï; and, 3. The *Ming-bülak*, to the north of Khokand, and nearly parallel to the Asfrah.

The Chain of KWAN-LUN, KUEN-LUN, or QUAN-LUN, extends nearly along the thirty-fifth parallel of north latitude, bearing also the names of KULKEN and TARTASH-DAGAN, and commencing about the 70° E. long., to the westward of the *Tsung-ling* (Blue or Onion Mountains), which are connected with the Bolor-tagh, and, according to the Chinese geographers, form its southern portion. From this point the chain runs eastward, and after crossing Thibet in two branches under the name of *Tsung-ling*, to the north, and Ngari, Zzang, and Li, to the south, forms in Eastern Thibet the *Kuon-lun* of the Chinese, a mountain mass of prodigious height, which, in their mythological geography, is called the king of mountains, the highest point of the whole earth, the mountain which touches the pole and supports the sky; it is, in short, the Olympus of the gods of the Buddhists, and the Tao-se. This great mass is supported on the north by the snowy chain of the *Nan-shan* and *Kilian-shan*, which also extends west and east. Between the Nan-shan and the Tean-shan the mountains of *Tangut* bound the edge of the desert of Cobi, and that and other contiguous chains form the country of Kham, Western Setchuen, and Yun-nan. In Thibet the Kwan-lun is connected with the Himalaya by several lofty chains, whose peaks are covered with everlasting snow.

The HIMALA, HIMMALA, HIMACHEL, or HIMALAYA (Abode of Snow) mountains extend in a general direction north-west and south-east. From the meridian $69^{\circ} 10'$ east, where it is connected with the Hindoo-koh, the chain extends to the east and south-east, along the northern frontier of India, Assam, and Birmah, and penetrates into the Chinese province of Yun-nan, where, to the westward of Yung-chang, it exhibits sharp and snowy peaks. It turns abruptly to the north-east, on the confines of Hoquang, Keang-si, and Fuh-kien, and extends with its snowy summits near to the ocean, where we find, as if it were a prolongation of the chain, the *mountains of Formosa*, which are snow-capt during the greater part of the summer, shewing in this latitude an elevation of at least 12,049 feet. Westward, the chain of Himalaya forms, or is connected with, the *Hindoo-koh*, or *Indian Caucasus*, and the *Paropamisus mountains*, which extend in a westerly direction through five or six degrees of longitude, and then inclining to the north-west, appear to terminate before reaching the Caspian Sea. In the same direction, however, after a short interruption, the chain of *Elbörz* appears, extending along the south side of the Caspian, and connected with the Caucasus and the mountains of Armenia. The culminating points of the Himalayas are found on the frontier of India, between 76° and 90° E. long., where they present a series of snow-clad peaks, many of which are from four to five miles of perpendicular height above the level of the sea; and one of them, the *Dhaulagiri* or *White-mountain*, rises to the enormous elevation of five miles and a half. The Himalayas, though running nearly in the same direction, are not exactly parallel with the Kwan-lun; but approach them so nearly in the meridian of Attok and Jellalabad, that between Cabul, Cashmere, Ladakh, and Badakhshan, the Himalayas seem to form only a single mass of mountains with the Hindoo-koh and the Tsung-ling. In like manner the space between the Himalayas and the Kwan-lun, further east, is more occupied by secondary chains and isolated groups of mountains than the table-lands between the Altai and the Tean-shan, and between the latter and the Kwan-lun. Consequently Thibet and Kashi cannot properly be compared in respect of their geological structure, with the high longitudinal valleys which are situated between the eastern and the western Andes. Nor is the level of these countries equal throughout; for the mildness of the winters and the cultivation of the vine in the gardens of Plassa indicate the existence of deep valleys or circular depressions. The courses of the Indus and the Sampoo, in opposite directions, also indicate a depression of Thibet to the north-west and the south-east. From this watershed, which is situated nearly in the meridian of the Jewahir, and Mount Calissa or Calais (in Chinese *O-new-ta*, and in Thibetan *Gang-dis-ri*), the chain of *Kara-korum-pudishah* stretches to the north-west, towards the Tsung-ling; and the snowy chains of *Hor* and *Zzang* to the east. The

Kara-korum chain forms the watershed between the affluents of the Indus on the one side, and the rivers of Yarkhand on the other. The *Hor*, at its north-western extremity, is connected with the Kwan-lun, and its course from the eastern side is towards the Tengri-noor. The *Zsang*, which is to the south of the *Hor*, bounds the long valley of the Sanpoo, and extends from north to east towards the *Nen-tsin-tang-la-gangri*, a very lofty mountain which, between H'assa and the Tengri-noor, terminates in Mount *Nem-shun-ibushi*. Between the meridians of Ghorka, Katmandu and H'assa, the Himalayas send off to the north, towards the right bank, or southern border of the valley of the Sanpoo, several spurs covered with perpetual snow, the highest of which is the *Yaria-shamboy-gangri* (the snowy mountains in the country of the self-existing God), to the westward of the lake Yamruk-yumzdo or Paltee. Subordinate to the Himalayas and the Kwan-lun, the following chains may be mentioned: 1. The *Yung-ling*, which runs north and south, separates, by a long series of snowy peaks, China from Thibet, and joins the chain of *Pe-ling*, which bounds Shansi to the south, and has several snowy summits. On the frontier of Honan it becomes lower, and runs north-west towards Shansi, where it joins the Ta-lang. In Shansi itself, a secondary chain, called *Loung*, stretches from the Pe-ling north-west to the Hoang-lo, where it rises to the snow line, and unites with the Ala-shan. In general, the Pe-ling marks the boundary between the basins of the rivers Hoang-lo and Yang-tse-kiang, terminating near the sea, between their mouths. The *Nan-ling*, rising from the extremity of the Yun-ling, at a great distance from the Pe-ling, approaches the latter as it advances eastward, and sends off to the north-east several branches, which accompany the windings of the Yang-tse-kiang, even to its mouth. The mountains of *Yan*, to the north-west of Pekin, and the *Ta-lang*, to the west, in Shansi, appear to belong equally to the Pe-an-shan and the Kwan-lun. 2. The *Sub-Himalayas*, which extend along the south side of the great chain, and form with it the valleys of Nepal, Bootan, &c. 3. The chain which, under the names of *Yomadong* and *Anapektomio*, extends from the upper end of the valley of Assam to Cape Negrais. 4. The *Birman-Siamese* chain, which extends north and south, between the valleys of the Saluen and the Meinam, from the confines of Yun-nan through the peninsula of Malaya to Cape Romania. 5. The chain which traverses Laos, and forms the eastern boundary of Siam, separating the valley of the Meinam from that of the Maykuang. 6. The chain of *An-nam*, which forms the watershed between the affluents of the Maykuang and the numerous rivers of Tonkin and Cochin-China. 7. The chain of *Suleiman*, which extends from north to south, nearly parallel with the river Indus, and whose branches form the numerous secondary chains which traverse Afghanistan and Beloochistan, losing themselves in the table-land of Kerman on the one side, and terminating at Cape Jask on the other. Its principal summits are, *Sufid-koh* (White hill), west of Peshawar, about 14,600 feet above the level of the sea, and *Tukht-i-Suleiman* (Solomon's Throne), $31^{\circ} 35'$ N. lat., 11,000 feet. The loftiest peaks of the Himalayas are supposed to be those of *Dhaulagiri* (White hill), nearly in the meridian of Banares, and *Chumulari* in Bootan; their elevation being calculated, though not exactly ascertained, at about 28,000 feet. Farther west, various parts of the range have been approached, and even crossed by Europeans, and the elevation of the summits pretty nearly ascertained. The *Southern*, or *Hither Himalayas*, which separate the feeders of the Sutlej from those of the Pabur, Roopir, and Andrytie, vary from 16,982 to 19,512 feet, and the passes from 15,000 to 16,000; the *Junoetri peaks*, or *Budri-pooch mountains*, from 20,122 to 21,155; *St. George*, *St. Patrick*, and the *Pyramid*, above Gangouri, 22,240, 22,385, and 20,966; *Roodra-Himala*, 22,390; *Surga-Roor*, 23,441; a cluster extending from Kedarnath to Budrinath, six peaks, 22,130 to 23,111; and three contiguous peaks, 19,178 to 21,683; *Jewahir* four peaks, 22,345 to 25,741; *Dharbun*, in Nepal, 24,640, and *Gossanthan*, also in Nepal, 24,740.

The *BYLOR*, *BEUR*, or *BULYT-TAGH* (Cloudy Mountains), extend in a direction transverse to that of the preceding chains, being connected with the Tsung-ling on the south, and united on the north to the chain which passes to the north-west of Cashgar, under the name of Cashgar-davan. Of the northern part of the chain very little is known; but, in its middle portion, it forms or consists of the table-land of *Pamer* or *Pamir*, which is elevated 15,600 feet above the level of the sea, and is overtopped by mountains which rise several thousand feet higher. From *Pamer*, a chain of very lofty mountains, the *Hindoo-koh* of the Western Asiatics, extends in a S.W. direction, terminating with a lofty snow-capt mountain, named *Koh-i-baba*, 48 miles W. of Cabul, and being connected with the Himalayas at the valley of Punjshere, N.E. of that city, forms the watershed between the basins of the Oxus and the Indus. From the same part of *Pamer*, the *Belur* is continued almost straight S. till it join the Himalayas, separating in its progress the hill country of Chitral from Little Thibet; while a third branch extends in an easterly direction, towards the chain of *Kara-korum*, which, as already mentioned, separates the basin of the Indus from that of the river of Yarkhand. It thus appears that the chains of *Hindoo-koh* and *Karakorum* may either be considered as diverging ranges of the *Belur-tagh*, or as constituent parts of the western prolongation of the Kwan-lun. Though their elevation has not been ascertained by measurement, they appear to be much higher than the Himalayas, for they form a complete watershed between India and Central Asia, while, on the contrary, the Himalayas are interrupted and broken through in many places by the streams which flow from the northern ranges and the hill country which lies between them.

The *URALS*, or *URALIAN MOUNTAINS*, which belong in common to Europe and Asia, extend from north to south, through 20° of longitude, from the Arctic Ocean to the Sea of Aral. Compared with the preceding chains, the Urals are very low in their general elevation, though some of them reach the limit of perpetual snow, a circumstance which is not remarkable in their high latitude. Where the road from Moscow to Siberia crosses these mountains, the chain is about 40 miles broad, but the ascent and descent of the road are so nearly imperceptible, that were it not for the precipitous banks everywhere to be seen, the traveller would hardly suppose he was crossing a range of hills. The average elevation of this part of the range seems not to exceed 1350 feet, though some rocky masses rise perhaps a thousand feet higher; and the base upon which the chain rests is itself 500 feet above the level of the sea. Beyond $55^{\circ} 20'$ the chain presents several summits which attain between 2000 and 3000 feet; but the highest part of the range is situate to the north of 59° , and the highest of all, the *Danushken-kamen*, lies to the north of 60° . The summits of this northern part of the range have been ascertained to rise to between 8000 and 9000 feet above the level of the sea; but the principal summits are detached mountains, to the eastward of the main range. Lateral branches also extend eastward to a considerable distance into the plain. The principal chain bears successively from north to south the names of *Pogys*, the *Verkhaturian Urals*, the *Urals of Iekaterinburg*, and the *Bashkirian Urals*. Several low branches diverge into the governments of Arkhangel and Vologda; but the principal subordinate or diverging chains are connected with the Bashkirian Urals. The *mountains of Obshcheyrt*, which diverge from the western slope of the principal chain, are really nothing more than a long table-land of undulating hillocks extending into the government of Orenburg; forming, however, the northern limit of the depression which surrounds and contains the Caspian Sea. The chain of *Moughojar* extends into the country of the Kirghiz, and seems to be connected with the plateau called the *Ust-Urt*, between the Caspian Sea and the Lake Aral. Subordinate to this last-named chain, or part of the same group, are the *Great Birzouk*, a chain of low hills, which extends in a series of rocky cliffs along the northern shore of the Aral, spreading out towards the west, and turning into the Istmus; and the *Little Birzouk*, which are situate a little farther to the south-east, and terminate with a promontory at the north-eastern corner of the Aral. The *mountains of Norala Zemla* may also be considered as an orographic continuation or prolongation of the Urals. Their principal summit is *Glaunowsky*, about 2500 feet above the level of the sea.

The remaining mountains of Asia, those of the south-west, have been classed by the French geographers as one group, which they call the WESTERN or TAURO-CAUCASIAN SYSTEM. The grand nucleus, or centre of the system, is formed by the high table-land of Armenia, and the lofty mountains which intersect and overtop it. From the stupendous peak named *Macis* by the Armenians, *Agri-dagh* by the Turks, and *Ararat* by Europeans, two ranges diverge to the westward, forming between them the long valley of the Murad or Eastern Euphrates. The southern of these are the *Masian Mountains* (*Mons Masius* of antiquity), which are merely a prolongation of the *Taurus*, which extends into Asia Minor. The northern branch is named by the Turks *Kus-dagh*, *Kiziljeh-dagh*, *Aghir-dagh*, and *Abi-dagh*; by the Armenians *Dagh-er-dagh*, and *Macis*; and to the north of it are two long narrow valleys drained by the Karasu and the Aras. Farther north the mountains of *Tscheldir* and *Janik* separate the table-land of Armenia from the lowland on the Black Sea, and are connected with *Agri-dagh* by irregular ranges and clusters of mountains, which separate Armenia from Georgia and Azerbaijan, under the names of *Klardjethi*, *Taosi*, *Medin*, and *Sidorin Guegas*, or *Lower Caucasus*.

From Armenia three chains of mountains diverge towards the west, which may be considered as forming so many different groups. The first chain encloses the upper basin of the Euphrates, and passing that river above Samosat, advances towards the west, under the names of *Taurus*, *Jebel-Kurin*, and many other designations, along the southern coast of Asia Minor, terminates in various promontories and islands in the south-western part of the peninsula. The mountains of Rhodes and Cyprus may be considered as its dependencies. The second of the three chains proceeds also into Asia Minor, to the northward of Taurus, and its eastern part corresponds with the *Anti-Taurus* of the ancients. Extending in different directions, and with many interruptions, it intersects all the interior of Asia Minor, and is ultimately divided into numerous branches, which terminate on the shores of the Archipelago. The third chain likewise extends into Asia Minor, along the southern coast of the Black Sea, at no great distance inland. Towards the south and south-east three other chains are detached from the central nucleus, two of which, however, may be considered as merely branches of the Taurus, while the third seems to be a prolongation of this chain itself. To the westward of the Euphrates, Taurus sends off several branches southward, the most westerly of which reaches the sea, and separates Syria from the ancient Cilicia. This is the *Ananus* and *Pierius* of the Latin geographers, but now bears the name of *Alma-dagh*. It terminates between the Gulf of Scanderoon and the mouth of the Orontes; but is only divided by the narrow channel of that river from the *mountains of Syria*, which may be considered as the prolongation of the branch of Taurus. Commencing with the lofty peak of *Jebel-el Akral* (*Mons Cassius*) and *Mount St. Simeon*, which connects them with *Alma-dagh*, the Syrian mountains extend southward, nearly parallel with the eastern shore of the Mediterranean Sea, under the names of *Jebel Akra*, *Jebel Chakinah*, *Jebel Kraud*, the *mountains of the Nozaries*, *Lebanon*, and many others. *Lebanon* forms two branches; the western being the *Libanus* of the Latins, which terminates on the coast near Sidon, while a branch extends southward through Judea, forming the watershed between the basin of the Jordan and the Mediterranean Sea; the eastern is the *Anti-Libanus*, which extends under various names, and with several interruptions, into the deserts of Arabia, beyond the Dead Sea. The second chain is detached in the cyalet of Diyarbekr, extends into Mesopotamia, and terminates at the Euphrates in the *mountains of Sinjar*; and seems to be the *Mons Masius* of the Latins. The third chain, the most remarkable of the three for its elevation and its length, is detached from Armenia, to the south of the Lake of Van, and under the names of *Aglin-dagh*, *Elvend*, *mountains of Kurdistan*, *Louristan*, *Bukhtiar*, &c. extends far to the south-east, forming the boundary between the plains of Assyria and Babylonia on the one side, and the lofty table-land of Iran on the other. It seems to be finally lost in the deserts of Kerman. The northern part of the chain seems to correspond with the ancient *Niphates*; the southern prolongation with the ancient *Zagrus*. Subordinate to this chain, and nearly parallel with it, is the long ridge of *Jebel Hamrin* or the *Hills of Hamerun*, which cross the bed of the Tigris above the 35° N. lat., and extend to the south-east, forming the northern border of the alluvial plains of Babylonia and Chaldaea. To the east of Zagrus the numerous ridges, which form a sort of net-work over the surface of Persia, may also be considered as dependencies of the Tauro-Caucasian system. From the east side of Armenia a lofty chain is detached to the south-east, which, under the name of *Elbûrz*, passes to the south of the Caspian Sea, and terminates in Khorassan, though it may be considered as prolonged in the *mountains of Nishabor*, which rise in the same direction, after a little interruption, and are connected with the great chain of the Himalayas. To the north of Armenia, a chain stretches through the pashalics of Kars and Akhaltsike, in the latter of which it forms the southern boundary of Imeritia, and then stretches in a north-easterly direction, and joins the Caucasus in Georgia, forming there the watershed between the affluents of the river Rioni, which flows to the Black Sea, and the Kur, which flows to the Caspian. The great range of *Caucasus*, which forms the northern part of the Tauro-Caucasian system, extends along the north-eastern coast of the Black Sea, across the isthmus, and terminates in a series of low hills in the peninsular promontory of Abcheron, on the west side of the Caspian Sea; but covers with its branches the *Daghestan* or hill country, which extends to a considerable distance to the northward of Abcheron. The length of the principal chain of Caucasus exceeds 700 miles, while its breadth is only from 6 to 120. The loftiest summits are found near the middle of the chain, and are covered with perpetual snow. The snow line along the chain varies from 10,000 to 11,000 feet above the level of the sea. The *mountains of the Crimea* are an orographic dependency of Caucasus, in the line of which they lie, and from which they are separated only by the Strait of Yenikaleh, and the alluvial delta of the river Kouban.

TABLE OF THE ELEVATIONS OF THE PRINCIPAL SUMMITS OF THE TAURO-CAUCASIAN SYSTEM.

I. ARMENIA AND ASIA MINOR.—		Feet.
Agri-dagh, Macis, or Ararat, N. lat. 39° 35', E. long. 41° 12', First peak,		17,265
	Second peak,	12,162
Sepan, or Supan-dagh, N. side of the Lake of Van,		9,500
Ali-Ghuz, N.W. of Erivan, in Russian Armenia,		12,000 ?
Sevellan, } In the Persian Province of Azerbaijan, {	12,000, or	13,000 ?
Sahend, }		9,000 ?
Mountains of Akhaltsike,		10,000
City of Erzurum, the capital of Turkish Armenia,		6,114
„ Kharput, S.E. of Erzurum,		5,032
Crest, or medium elevation of Taurus,—		
At Maden-goumish,		5,053
„ Dawah-Boini,		4,453
„ Khutel,		3,379
„ Gul-dagh,		4,804
„ Ayeli,		5,650
Arjish-dagh, in centre of Asia-Minor, S. of Kaisariyeh,		13,000
City of Sivas, in centre of Asia-Minor,		3,894
„ Kutahya,		6,000

	Hassan-dagh, S.W. of Kaisariyeh, in Asia-Minor,	8,000 ?
	Olympus, near Brusa, S. of the Sea of Marmora,	9,100
	Ida, S.E. of the Dardanelles,	5,435
2. IN SYRIA,—		
	Jebel-el Akral, or Mount Casslus, at the mouth of the Orontes,	5,318
	Summit of Lebanon, Jebel Sannin, N. of Baalbec,	11,050 ?
	Mount Tabor,	2,053 ?
	Mount Carmel,	2,250 ?
3. CAUCASUS AND ELBURZ,—		
	Elburz, highest peak of Caucasus, 43° 5' N. lat., 42° 50' E. long.,	17,796
	Ka-ishec, 42° 40' N. lat., 41° 41' E. long.	15,345
	Pass of Dariel, leading from Vladi-Kaukas to Teflis,	8,000
	Tchatar-dagh. S.E. coast of the Crimea,	5,110
	The Peak of Demavend, in the range of Elburz, between Irak and Mazenderan, 52°	
	E. Long	14,700
	Mountains of Karalini, between Armenia and Georgia,	6,000

The MOUNTAINS OF ARABIA, though they may also be considered as part of the Tauro-Caucasian system, and are so classed by Balbi, yet seem to be really so little connected with it, that we shall be justified in treating them as a separate group. We know, indeed, very little about them. Arabia seems to be like the interior of a vast table-land surrounded and intersected by mountains, but with their elevation and direction we have little acquaintance. The best known ranges seem to be those which extend, at various distances, along the coasts of the Red Sea, the Arabian Sea, and the Gulf of Oman, attaining an elevation between 6000 and 9000 feet, and forming the boundary of the table-land of the interior.

The MOUNTAINS OF INDIA are classed by Balbi as dependencies of what he calls the Altai-Himalayan system; but they are so completely separated from the Himalayas that neither geographically nor orographically can we admit the correctness of his classification. The most northerly chain of the Indian mountains, named *Aravulli*, extends about 350 miles from N.E. to S.W., through Rajpootana, with an average elevation of about 3600 feet, and forms the western boundary of a hilly region which sends its waters to the Ganges. The *Indhyah* and *Sautpoora mountains* are two parallel ranges, which stretch from west to east, along the valley of the river Nerbuddah, and are connected at their eastern extremity with a mountainous region which occupies the central portion of India, and terminates, on the one side, at Rajmahal on the Ganges, and on the other, near the sea-coasts of Orissa. Their average elevation does not exceed that of the Aravulli. The *Western Ghauts* extend in a continuous line along the south-western coast of India, from the valley of the river Tuptee to the valley of Coimbatore, where they are connected with the *Nilgherries*, the loftiest mountains of the Peninsula. The *Eastern Ghauts* follow, in like manner, the line of the south-eastern coast of India, but form a less continuous and less regular chain than those of the west. Both chains may be considered as prolonged by the hills which extend southward from the valley of Coimbatore, and terminate at Cape Comorin; though it is rather with the eastern than with the western Ghauts that the latter seem to be connected. The *Mountains of Ceylon* form a detached group of great elevation in the centre of the island. (See INDIA and CEYLON.)

The JAPANESE or MARITIME CHAIN includes all the mountains which are found in that long chain of islands which extends from Kamtschatka to the Channel of Formosa; and should properly include the mountains of Kamtschatka also. The two extremities of the chain, the mountains of Kamtschatka and Formosa, seem to be its loftiest portions; the whole chain is a series of volcanoes.

TABLE OF THE ELEVATIONS OF THE JAPANESE CHAIN.

		<i>Feet.</i>
Klutchevskaia, or Klioutshevskii, N. lat,	56° 8'	16,512
Koriatskaia,	58° 19'	11,215
Kronotskaia,	54° 8'	10,625
Shivelutsh, S.E. peak,	56° 40½'	10,591
N.W. peak,	56° 40'	8,716
Jupanovskaia,	53° 35½'	9,060
Avatchinskaia, or peak of Awatshka,	53° 17'	8,760
Tollbatschinsk,		8,316
Viluchinskaia	52° 13½'	6,750
All these are in Kamtschatka.		
The peak of Ieso,		7,680
Mountains of Formosa, probably		12,000

VOLCANOES.—Asia contains very few volcanoes in proportion to its vast extent. 1. The principal are found in Kamtschatka, to the number of five, of which the *Klioutsherskoi* or volcano of *Tolbatschik*, is the most formidable. Next to it are the *Aratscha* and *Kamtschatka*, besides which there are eight smaller ones. 2. The *Djenkyl*, in Indo-China, between Moyoip and Tavoy. 3. The *Pe-shan*, *Pih-shan* of the Chinese, or *Eshikbais* of the Turks (goathead), on the northern slope of the Teean-shan ($42^{\circ} 35'$ N. lat., 80° E. long.), between Koutehe, in Little Bukharia, and Koigos, on the banks of the Elee, and the *Ho-tcheou*, upon its southern slope, not far from Turfan ($42^{\circ} 40'$ N. lat., 50° E. long.), are very remarkable as being the most distant volcanoes from the sea yet known. According to the reports of the Chinese, the Pe-shan, which they also name *Ho-shan* and *Aghi* (fiery mountain), sends forth fire and smoke without intermission. Of the present state, however, of the mountain, we have no very certain information. It is not known whether the name *Pih-shan* implies that its summit reaches the line of perpetual snow, or whether it merely denotes the glittering line of a peak covered with saline substances, pumice stone, and decomposed volcanic ashes. From Chinese history it appears indisputably to have been, in the first century of our era, a volcano in the strictest sense of the word, vomiting forth torrents of lava. At present, it would appear to be rather a solfatara. For a long time it has ceased to eject lava, but it produces ammoniacal salt in such abundance that the inhabitants of the country often pay their tribute to the Emperor in that commodity. The mountain is full of caverns and crevices, which in spring, summer, and winter, are filled with fire to such a degree that during the night the surface appears to be illuminated with thousands of lamps, and it is then unsafe for any person to approach it. It is only in winter, when the snow has extinguished the fire, that the sal-ammoniac is gathered; the salt is found in the form of stalactites, which are detached with difficulty. To the eastward of Pe-shan, the whole northern slope of the Teean-shan presents volcanic phenomena. Lava and pumice-stone are found there, and even considerable solfataras, which are called "fiery places." The solfatara of *Uromtsi* (45° N. lat., 81° E. long.), 40 leagues westward of the meridian of Ho-tcheou, at the foot of the Bukhda-la, is five leagues in circumference; in winter it is not covered with snow, but is supposed to be full of ashes. If a stone be thrown into it flames issue forth, as well as black smoke, which continues for some time.

Sixty leagues eastward from Pe-shan is a lake of very considerable size, the different names of which, in the Chinese, Kirghiz, and Calmuck languages signify "warm, salt, and rusty water." The volcano of *Tiefan*, or *Ho-chow* (City of fire), emits an uninterrupted column of smoke, which at night appears like a flaming torch. About 200 miles north of Ürümsi, in a plain adjoining the river Khobak, which falls into the little lake Darlai, there is a hill whose sides, though they do not smoke, are very hot, and yield a considerable quantity of ammoniacal salt. Besides these four places hitherto known, Pe-shan, Ko-chow, Ürümsi, and Kobok, there is an insulated conical mountain, Araltube, in the Lake Ala-kül, which has been in a state of ignition in historical times. It is situated in the volcanic territory of Bishbalikh to the W. of Kobok and to the N. of the Pe-shan, at the distance of 60 leagues from each. We are thus acquainted in the interior of Asia with a volcanic territory of upwards of 2500 square leagues, distant 300 or 400 leagues from the sea, and occupying one-half of the long valley between the Altai and the Tectan-shan. The chief seat of volcanic action seems to be in the Tectan-shan; on the north side of the Tarbagatai and the lake Darlai the action becomes weaker; on both sides of the Tectan-shan violent earthquakes are felt, and between the lakes Balkashi and Ala-kül they are said to be very common. The city of Askü was entirely destroyed by one in the beginning of the 18th century. The Caspian Sea likewise appears to be surrounded by a volcanic territory. On the east side there are hot springs at *Soussac*, in the Karatau mountains, near the city of Turkistan; on the south and the west sides, two volcanoes are still in activity, namely, *Demavend* and *Seiban-dagh*, besides many others which are now quiescent. The chain of Caucasus abounds with trachytes, porphyries, and warm springs, and numerous mud volcanoes appear on the Isthmus between the Black Sea and the Caspian. But it is in the islands that the volcanoes are most formidable. A continuous line of volcanic action commences on the north with the Aleutian Islands, and extends first eastward for 230 miles, and then southward without interruption to the Moluccas, where it branches to the E. and N.W. The N. portion of this volcanic belt is the long peninsula of Alaska in N.W. America, from which it extends through the Aleutian islands to Kamtschatka, in the S. part of which are a number of active volcanoes. The belt then forms a train of volcanic mountains extending through the long line of the Kurile Isles, nine of which are known to have been in eruption, besides Jesso and Nippon, where the burning vents are very numerous, slight motions of earthquakes almost incessant, and violent shocks experienced at distant intervals. Between the Japanese and the Philippine islands the communication is preserved by several small insular vents. *Sulphur Island*, in the Looehoo cluster, emits sulphureous vapour; and Formosa suffers greatly from earthquakes; in Luzon are three active volcanoes; there was also an eruption in Mindanao in 1761. The belt is then prolonged through Sanguir and the N.E. end of Celebes, by Ternate and Tidore, to the Moluccas, whence a great transverse line runs westward through Wetter Ombay, Panter, Flores, Sumbawa, Lombok, Bally, Java, and Sumatra, ending with *Barren Island*, a very active volcano in the Bay of Bengal. In Java alone there are 38 large volcanic mountains, many of which continually discharge smoke and vapour. The volcanic belt is prolonged in another direction through Borneo, Celebes, Banda, Papua, New Britain, New Ireland, and various other islands in the Pacific.

DESERTS.—Asia presents a great number of deserts and steppes, several of which are of immense extent. With little exception, all the northern part of Asiatic Russia may be regarded as an immense steppe, interspersed with marshes; in the southern part of the same region are many smaller steppes and salt plains, among which may be mentioned the great steppe of the *Kirghiz*, N.E. of Lake Aral; *Ischim*, between the Irtysh and the Tobol; and *Baraba*, between the Irtysh and the Obi. But the most remarkable deserts are those sandy plains that occupy the greater part of the south-west and central regions of the continent, extending, with little interruption, from the shores of the Atlantic Ocean to the north-east of China, through a space equal in length to 130 equatorial degrees of longitude, or upwards of 9000 miles, more than a third part of the earth's circumference. This tract does not indeed form one continuous desert; for, besides the *oases*, or islands, with which it is sprinkled, it is interrupted, in the eastern part of Africa, by the narrow valley through which the river Nile conveys its tropical waters to the Mediterranean Sea. A little farther east it is nearly intersected by the Red Sea, which leaves only the narrow isthmus of Suez to connect the deserts of Africa and Asia. To the east of Arabia, it is again interrupted to a considerable extent by the Persian Gulf and the plains watered by the rivers Euphrates and Tigris. To the east of Persia, the river Indus separates the deserts of Beloochistan from the desert in the N.W. of Hindostan, while the gigantic mountain chains of Himalaya, Hindoo-koh, and Kwan-lun form a complete separation between the deserts of Persia and India, and those which occupy the interior of Asia. On the east of the Red Sea, this desert occupies nearly the whole peninsula of Arabia to the extent of more than 1000 miles in length, and from 700 to 900 in breadth, exhibiting everywhere the same character as the African Sahara. The deserts of Persia are nowhere so extensive as those of Arabia, their continuity being more interrupted by ranges of mountains and well watered fertile valleys, which form the inhabited portions of the country. The deserts of the interior bear the names of *Cobi* or *Gobi*, *Shamo*, and *Tola*, but are very little known to Europeans. *Gobi*, in the Mongol language, means a *naked desert*, and is equivalent to the *Shamo* or *Hanhai* of the Chinese. They extend almost continuously about 2000 miles in length, with a breadth of from 200 to 300. Marco Paolo says, that it takes a month's journey to cross the desert from N. to S., but to go through it lengthways would occupy a whole year. The journey, he says, is entirely through sands and barren mountains, in which water is found every day; yet at some of the resting places it is so scanty as scarcely to suffice for a caravan of 50 or 100 persons with their cattle. In three or four places the water is salt and bitter, but in general it is very good. In the whole journey across the desert no beasts or birds were to be seen, and it was reported that many evil spirits resided there, and occasioned wonderful illusions to travellers. The eastern part of the desert was crossed by Mr. Bell of Antermomy, in 1729, in the train of a Russian embassy. He was twenty-eight days in passing from the river Tula, on its northern border, to the first cultivated land on the south side, where he found to his great satisfaction a small brook of fresh water, and some Mongolian huts. The desert exhibited everywhere a level surface, mostly overgrown with rank grass, and occasionally interrupted by patches of sand and gravel; but in the middle there was a belt of sand 20 miles across, so loose as to be blown about, and raised into hillocks by every blast of wind. During a later Russian embassy, in 1830, a series of heights was ascertained across this part of the desert, from Kiakhia to Pekin, and it was found that the pass leading over the mountain chain, to the south of Urga, and to the north of the river Tula, is only 5000 feet above the level of the sea; and that on the southern border of the desert, not far north of Pekin, the highest passes through the mountains which are traversed by the great wall rise only to 5525 feet. Between Urga and the great wall lies the desert, which, however, is not a perfectly level plain, but sinks towards the middle, where it is about 3000, and in some places only 2600 feet above the level of the sea, and forms a long flat valley, which is the proper desert, extending east and west. Its surface is covered with sand, abounds in salt, and exhibits everywhere the traces of its having once been the bed of a sea. Farther west, towards Hami, the country appears to rise considerably; but beyond this it would appear to be furrowed again by the valley of the large river Yarin, which forms the drain of the hill countries of Kashgar and Yarkhand, or little Bukharia, and terminates in the Lake of Lop. In Western Asia, the *Deserts of Turkestan* occupy the greater part of the surface of that country, the only cultivated portions of it, below the mountains, being the narrow strips of land along the rivers, within

reach of irrigation by their waters. The northern parts form *steppes*, which afford pasturage to the herds and flocks of the wandering Kirghiz; in the central region, along the Aral, are the two extensive sandy deserts of *Kara-koum* (black sand) and *Kizil-koum* (red sand); and, in the southern region, the wide-spread deserts of Turcomania, extending from the Caspian Sea, along the northern frontier of Khorassan.

PLAINS, VALLEYS, AND TABLE-LANDS.—On the northern side of the Altai range, and indeed over the whole of the northern part of Europe and Asia, the elevation of the ground is very inconsiderable. From the plains of Brabant, it is possible to travel eastward to the Steppes which border the western declivity of the Altai, and Chinese Zoungaria, from the Scheldt to the Lenaïse, over 80 degrees of longitude, without meeting with a single elevation exceeding 1200, or 1300 feet; and even on the south side of the Altai, along the banks of the Upper Irtysh, and the borders of Lake Zaisang, and through a great part of the steppe of the Kirghiz, the elevation has been found, by barometrical measurement, scarcely to exceed 1900 feet above the level of the sea. Of the countries lying farther south, between the Altai and the Himalayas, we have a very imperfect knowledge; but it is worthy of remark, that the countries situate between the Kwan-lun and the Tean-shan, have a general inclination from west to east; while the valley of Zoungaria, between the Tean-shan and the Altai, is inclined to the west; being closed on the east, beyond the meridian of Peking, by the Khingkhanula, a mountainous crest, which runs S.S.W. and N.N.E., while to the west it is entirely open, on the side of the Tehoni, the Sarason, and the lower Sihoon. It is quite otherwise with the country between the Himalayas and the Kwan-lun, which is closed to the west by the Bülyt-tagh, which separates Little from Great Bukharia, and from Cashgar, Badakshan, and the Upper Jihoon or Amoodaria. The whole region, indeed, between the parallels of 30° and 50° N. lat., and between the meridians of the Bolor range and Lake Baikal, contains a vast extent of country, whose elevation probably does not exceed that of the plains of Bavaria, Spain, and Mysore.* There is, moreover, every reason to suppose, that plains of the same order of elevation as those of Quito and Titicaca, occur only in the bifurcation formed by the junction of the Himalayas and the Kwan-lun, in the group of mountains surrounding lake Iloho-nor, and in Gobi, to the north-west of the In-shan. But in the south-western portion of the continent there is a series of elevated table-lands, which form a characteristic feature, almost peculiar to Asia. The interior of the peninsular region, which extends from the Archipelago to the Caspian Sea, is occupied throughout nearly its whole length by the high regions of Phrygia and Armenia, which are not indeed exactly a table-land, but consist rather of a series of valleys and plains, of various degrees of elevation, from about 2000 to 6000 feet above the level of the sea. The elevation of the plain of Kutahya is 6000 feet; of Sivas 3894; and of Erzurum, the capital of Turkish Armenia, 6114. The peninsula of Arabia is in like manner almost entirely occupied by table-lands, which, in the northern district, slope towards the Persian Gulf and the Euphrates; but their elevation is unknown, though, from the height of the bordering mountains, it may be conjectured to be between 3000 and 4000 feet. The interior of Persia is also occupied by a table-land, intersected by a network of mountains, and leaving only a very narrow border of lowland along the Persian Gulf, the Indian Ocean, and the Caspian Sea. The elevation generally exceeds 3000 feet, though at Koom it is so low as 2046. The city of Ispahan is situate in a valley 4110 feet, and Tehran in a plain 3786 feet above the level of the sea. India likewise contains several detached table-lands. The table-land of Taxila, which occupies the northern half of the Punjab, has a considerable elevation; the table-land of Malwah, or Central India, supported on the south and west by the Vindhya and Aravalli mountains, has an elevation of about 2000 feet, but slopes north-eastward to the Jumna; the table-land of the Deccan, supported on the west by the Western Ghauts, has an elevation of about 2000 feet, but slopes considerably to the eastward, in which direction all its waters flow; the table-land of Mysore, in southern India, lying in the angle formed by the meeting of the Eastern and the Western Ghauts, has an elevation exceeding 3000 feet, but is of no very great importance.

But the most singular feature in the formation of the Asiatic continent is the depression of considerable portions of its surface below the general level of the ocean. The Caspian Sea, and a considerable tract of country around it, have been found, by levelling across the isthmus, to be 18.30 metres or 60 English feet lower than the surface of the Black Sea. The depression of the Dead Sea, in Palestine, and the basin of the river Jordan, has been found to be still greater. This was first indicated by the barometer and the boiling of water; but, these having given very discrepant results, Lieutenant Symonds, R. E., in 1811, carried a line of levels across from Jaffa to the Dead Sea, and ascertained the depression of the latter to be 1311.9, and that of the lake of Tabariah, 328 feet, below the level of the Mediterranean, shewing an inclination of nearly 1000 feet between that lake and the Dead Sea, in a distance of about seventy miles. North-east of the Caspian and the Aral commences a very remarkable region of small lakes, comprising the groups of Balek-koul, and Koum-koul, which seems to indicate, at some remote era, the existence of a great mass of water in the interior of Siberia, communicating with the lakes Aksakal and Aral. It extends to the north-east, between the rivers Tobol and Ischim, and may be traced eastward beyond Omsk, through the steppe of Baraba, to Sourgout beyond the Obi, through the country of the Ostiaks of Beresov, and even to the marshy shores of the Arctic Ocean. The geological appearances of this tract render it probable that, formerly, it was entirely covered with a mass of water, of which the Caspian and the Aral are the most considerable remaining portions. The Chinese also have a tradition of the existence of a salt lake in the interior of Siberia, which traversed the course of the river Lenaïse; and the salt plain which surrounds the oasis of Hami is expressively called by them the *Dried-up Sea* (Han-hai.)

SEAS, BAYS, GULFS.—1. In the Arctic Ocean: *Gulf of Lenaïse* and *Gulf of Obi*, respectively the estuaries of these two great rivers. 2. In the Indian Ocean: the *Red Sea*, *Gulf of Arabia*, *Gulf of Oman*, *Persian Gulf*, *Arabian Sea*, *Bay of Bengal*, *Gulf of Martaban*. 3. In the Pacific Ocean: *Chinese Sea*, *Gulf of Siam*, *Gulf of Tonquin*, *Yellow Sea*, *Sea of Japan*, *Sea of Okhotsk*, *Gulf of Anadir*.

STRAITS.—*Strait of Babelmandel*, which connects the Red Sea with the Gulf of Arabia; *Strait of Malacca*, between Malaya and Sumatra; *Channel of Formosa* at the south, and *Strait of Formosa* along the west side of the island of the same name; *Bhering's* or *Behring's Strait*, at the north-eastern extremity of Asia, separating it from America.

RIVERS.—Asia contains some of the largest rivers in the world. They may be arranged in five classes, according as they flow into the seas and oceans which surround the continent, or into inland lakes. 1. The *Lenaïse*, with its affluents the three *Tonguskas*; the *Obi*, with its affluents the *Irtysh*, *Ischim*, and *Tobol*; the *Obonets*; the *Lana*; the *Indigirka*; and the *Kolima*; all flow to the Arctic Ocean. 2. The *Rioni*, and *Kizil-Irmak*, fall into the Black Sea; the *Sarabat* and *Meander*, into the Archipelago; the *Aziz* or *Orontes*, into the Levant. 3. The *Euphrates* and *Tigris*, *Indus*, *Ganges*, *Erasmopootra*, *Iravaddy*, *Salween* or *Thalner*, fall into the Indian Ocean. 4. The *Meïnam*, *Maykuang* fall into the Chinese Sea; the *Yang-tse-kiang*, *Hwang* or *Whang-ho*, and *Anouur* or *Sighalien*, into

* The plains of Bavaria are 1660, of Spain, 2249; of Mysore, 3300; Quito, 5070; and Titicaca, 13,000 feet (1965 toises) above the level of the sea.

the Pacific. 5. The *Ural* or *Iaik*, *Kur* and *Aras*, *Kizilozen*, to the Caspian; *Amu* or *Oxus*, and *Sihoon* or *Jazartes*, fall into the Sea of Aral; the *Chuve* or *Tchou*, from the lake Ili or Ele, into lake Balkash; the rivers of *Yarkhand* and *Cashgar*, into the lake Lop; or, perhaps, as it is alleged, into the Whang-ho.

LAKES.—Asia contains the largest lake in the world, which, from its size and its saltness, has been dignified with the name of Sea. The CASPIAN SEA is situated in the western part of the continent, between $36^{\circ} 35'$ and $47^{\circ} 25'$ N. lat., and $46^{\circ} 15'$ and $55^{\circ} 10'$ E. long. Its greatest length along the meridian is about 760 miles, but measured in a curve line along the middle of its breadth, from its north-eastern extremity to the coast of Mazenderan, it exceeds 900; with an average breadth of 200. Its area is computed by Arrowsmith to be 118,000 square geographical miles, or nearly 160,000 square English miles. The Caspian is bordered on the north and north-west by the Russian empire; on the south and south-west by Persia; and on the east by Turkestan. The coast-line is irregular; but the only considerable bays are, the Gulf of Mertevi or Dead Gulf, in the north-east, and the Balkan on the east coast. The south and south-west coasts are closely hemmed in by lofty mountains, which in some places leave a narrow intervening strip of lowland, and in others, particularly on the west coast, exhibit a precipitous rocky shore. On the north-west and north it is bordered by the low steppes of Astrakhan; and on the east by the sandy deserts of Turkestan, which present a series of high cliffs and sand-hills approaching close to the shore. Its depth is very variable. Along the north-east the water is very shallow for 20 miles from the land; along the east, west, and south shores, the depth is sometimes 150 feet; and at one place near the middle no bottom has been found at 2800 feet. In several places the bottom seems to descend by terraces. The water is less salt than that of the ocean, and particularly near the mouths of the rivers, but is somewhat more bitter. Its level has been found, by levelling across the isthmus, to be about 81 feet below that of the Black Sea; but the north and south winds exercise a powerful influence in varying the level of the water at its opposite ends. Hence its variations have a range of from four to eight feet, and strong currents are generated both with the rising and the falling of the wind. Some difference is also occasioned by the snow melting in summer; and the lake is said to be subject to periodical variations of an anomalous kind; increasing and decreasing in its bulk through periods of about 30 years. The islands which it contains are few and unimportant; and, for the most part, those which are elevated are without water and vegetation. The low islands are often mere sand-banks, overgrown with reeds. There are few deep and secure harbours; and, as the winds are liable to sudden changes, the navigation is rather dangerous; Baku is indeed the only harbour in which a vessel can ride with safety in stormy weather. The rivers which flow into it are the Volga or Welga, the great drain of the south-eastern declivity of Russia; the Kouma, the Terek, the Kur, and the Aras, all from the declivities of Caucasus; the Kizilozen, and many others, from Persia; and the Ural, from the southern parts of the Ural mountains. The climate is less temperate than might be expected from the latitude; its northern gulfs are frozen in winter, and the ice at the mouth of the Volga does not break up till April. In the south, however, the summers are very hot and humid, and in consequence unhealthy, though productive of the most luxuriant vegetation in Mazenderan. The shores of the Caspian are frequented by multitudes of aquatic birds, as storks, herons, bitterns, spoonbills, geese, and ducks; and the waters abound with fish. The sturgeon is the principal object in the fisheries; but for delicate eating, the sterlet is preferred. There is also the beluga (*acipenser huso*), which attains such an enormous size, that one is a heavy load for three horses. The Caspian likewise contains a species of seal, porpoises, salmon, and a kind of herring; indeed it has been remarked that it contains all the varieties of sea animals which are found in the Black Sea, except those which arrive in the latter periodically from the ocean for the purpose of spawning. The species of shells and sea plants are not numerous.

The SEA or LAKE OF ARAL, to the eastward of the Caspian, is nearly a fourth part of its size; and, further east, are many smaller lakes of the same character, which receive rivers, but have no outlet. The principal of these are the *Balkashi-noor* or lake *Tenghiz*, the *Alak tou-gul*, the *Khassel-bash*, the *Ulsu*, the *Arat-noor*, the lakes *Bosteng* and *Lob*, the *Tengri-noor* and *Bouka-noor*, all in Central Asia; and the *Pangking* in Tibet; towards the west are several of the same kind which are much better known, as the lakes of *Urumiah* and *Van* in Armenia; the great salt lake of *Koch-Hisar* in Asia-Minor; and the *Dead Sea* in Palestine. All these lakes, or seas, as they are sometimes called, are salt; the waters of some of them are intensely so, and even bitter. Of freshwater lakes, with outlets, the principal are: the *Baikal*, in Eastern Siberia; *Zaisang*, formed by the Irish; the *Lake of Erivan*, in Armenia; the *Lake of Tiberias* or *Sea of Galilee*, in Palestine; the *Po-yang*, and *Tung-tung*, in China; the *Rhuwanrhad*, *Manasarowara*, and *Paltee*, in Tibet.

ISLANDS.—The numerous islands of the *Archipelago*; *Cyprus* in the Levant; *Ceylon*, *Andaman*, and the *Nicobar islands*, in the Bay of Bengal; *Hainan*, and *Formosa*, in the Sea of China; the *Majic-sima*, *Loo-choo*, *Japan*, and *Kurile* islands in the Pacific Ocean. To the south-east of Asia, between the Indian and the Pacific Oceans, is a multitudinous group of islands, which have usually been considered as belonging to Asia; but they have now been formed, along with the islands of the Pacific Ocean, into a new division of the globe, named OCEANIA or OCEANIC; and, though this classification is far from being unobjectionable, yet, as it has been adopted by most modern geographers, and has come into popular use, we shall adhere to it; the more particularly on this account, that if any of those islands are ascribed to Asia, it is difficult to draw a line of distinction between them and those whose inhabitants are fairly beyond the pale of Asiatic character and manners.

CLIMATE.—Nearly all the circumstances which unite in giving a mild climate to Europe, are reversed in the case of Asia. Its northern boundary extends beyond the parallel of 70° , and between the mouths of the Lena and the Lena, reaches even to 75° ; it everywhere attains the winter limit of the polar ice, and during the short summer of these high latitudes, there is only a narrow belt of water between the ice and the land. The north winds, unobstructed by mountains, blow over a plain of ice, and their cooling influence is not counterbalanced by hot deserts of sand in the southern portion of the continent; there being no land under the equator, opposite the length of Asia, except the narrow strips of Sumatra, Borneo, Celebes, and Gilolo. Consequently, the Asiatic countries situate in the temperate zone, are not warmed by ascending currents of heated air, similar to those which rise from the deserts of Africa, and exert so beneficial an influence on the climate of Europe. The position of the great mountain chains, and the general elevation of the country, likewise contribute to diminish the temperature; the Himalayas and Kwan-lun presenting an effectual barrier to the warm winds in their progress from the equator, while the high plains and groups of mountains, which occupy the centre of the continent, retain the snow till late in the summer, and produce descending currents of air which lower the temperature of the surrounding countries. There is, moreover, no sea of any considerable extent on the western side, and consequently, the western, or predominating winds, are land winds, whose severity is increased by the great enlargement of the continent towards the north. The result of all these circumstances is, that the eastern part of Europe, and the whole of Asia to the north of the 55° N. lat. have what Humboldt calls an *excessive* climate, meaning by that term, a climate in which the temperatures of summer and winter differ greatly from the mean temperature of the year, or, in plainer language, where the winter is excessively cold, and the summer excessively hot. In Europe, on the contrary, there is less difference between the temperatures of summer and winter, and both approach nearer the mean temperature of the year.

The height of the snow-line on the mountains of Asia has hitherto been very imperfectly determined; but in a general view, it may be regarded as much greater than in Europe, or even in America, under the same parallel. It appears, from the Report of Messrs. Lenz and Kupfer to the Imperial Academy of St. Petersburg in 1829, that the limit of perpetual snow on Mount Elbûrîs is 11,000 English feet, while on the Pyrenees, under the same latitude, it is, according to Ramond, at the height of only 8690 feet. The great influence of local circumstances on the position of the snow-line, is strikingly exemplified in the case of the Himalayas. On the south side of these mountains, under the parallel of 30° or 31° , the snow line is estimated at 12,400 feet; while on the north side, towards Thibet, snow disappears in summer at the enormous height of more than 20,000 feet. This remarkable difference is ascribed by Humboldt to the powerful radiation which takes place in summer from the high plains of Thibet, to the small quantity of snow which falls in winter, when the temperature sinks below 10° of Fahrenheit, and to the serenity and clearness of the atmosphere on the northern side of the mountain chain; circumstances which, at the same time, increase the radiation from the plains, and facilitate the transmission of the heat to the higher regions.

The effect of the very diversified local circumstances of the Asiatic continent, an example of which we have just now given, is such, that its *physical climates*, generally speaking, seldom correspond to the astronomical climates.

MINERALS.—There is no precious or useful mineral which is not found in this immense continent. The following table exhibits the countries which are most distinguished for their mineral wealth.

Mineralogical Table of Asia.

DIAMONDS:—*India*, kingdom of the Nizam, Baladghaut region, Bundeelund, Sumbhulpour, Gundur, Ceylon; *Asiatic Russia*, Perm and Orenburg.

OTHER PRECIOUS STONES:—*Birmah*; *Siam*; *India*; *Asiatic Russia*, Perm, Orenburg, Tomsk, Irkutsk, &c.; *Chinese empire*, China, &c.; *Persia*, Khorassan, &c.; *Independent Turkestan*, Badakshan.

GOLD:—*Japan*, Nippon, Sado, &c.; *Chinese empire*, Thibet, Yunnan, &c., country of the Lolos, Hainan; *Asiatic Russia*, Perm, Orenburg, Tomsk, &c.; *Birmah*; *Annam*, Tonkin, Cochinchina, &c.; *Siam*; *Malaya*; *Assam*, &c.

SILVER:—*China*; *Russia*, Tomsk, Irkutsk, &c.; *Japan*, Bungo; *Ottoman empire*, Armenia, Asia Minor.

TIN:—*Birmah*; *Siam*; *Malaya*, Ligor, Queda, Selenga, &c.; *China*; *Annam*.

MERCURY:—*China*; *Thibet*; *Japan*; *India*; *Ceylon*.

COPPER:—*Japan*, Suurounga, Atsingo, Kuno-kuoni, &c.; *Russia*, Perm, Orenburg, Tomsk, Georgia, &c.; *Ottoman empire*, Asia Minor, Armenia; *Chinese empire*, Yunnan, Kouei-cheou, Thibet; *Annam*; *India*; Nepal, Agra, Ajimere, Nellore, &c.; *Persia*, Azerbaijan.

IRON:—*Russia*, Perm, Orenburg, Tomsk, Irkutsk; *India*, Cashmere, Nepal, Bengal, Bahar, Oude, Agra, Barar, Nellore; *China*, Shensi, Thibet, Bootan; *Siam*; *Annam*, Tonkin, &c.; *Ottoman empire*, Diyarbekr; *Afghanistan*; *Seik territory*, Peshawar; *Persia*, Fars; *Japan*.

LEAD:—*China*; *Russia*, Irkutsk, Tomsk, Georgia; *Siam*; *Japan*, Jesso; *Persia*, Fars; *Arabia*, Muscat; *Ottoman empire*, Asia Minor, Armenia.

COAL:—*Chinese empire*, the northern provinces of China; *Ottoman empire*, Syria, near Beyroot, &c.; *India*, Bengal, Cutch, Valley of the Nerbuddah, &c.

SALT:—*Chinese empire*, Pe-che-le, and other provinces of China proper; *India*, Gujerat, Ajimere, Bengal, Lahore, Allahabad, Agra, Orissa, Comorandel, Arracan, Ceylon, &c.; *Russia*, Stepe of Isehim, Baraba, &c., lakes of Koriakov, not far from the Irish, lake Inder, &c., Shirwan, Armenia, &c.; *Persia*; *Arabia*, Yeman; *Ottoman empire*, Anatolia, Cyprus, &c.

VEGETATION.—The vegetation is extremely rich and various. All the natural families of plants appear to have representatives in Asia, for the vast extent of the continent includes climates of the most opposite character. From the lowly vegetation which composes the Arctic flora, to the gigantic trees and generally luxuriant vegetation of the Indian regions, we find in Asia every intermediate kind. Sometimes the extremes appear to exist even in the same country; for example, where the Himalayas present an Arctic vegetation in their higher regions, while, not far below, the vegetation of warm climates is found in full luxuriance. But most of the countries of Asia have a homogeneous and characteristic vegetation of their own. To attempt, however, to particularise them, would be an idle work; the bare enumeration of them might fill our volume, but would contribute little to the edification of our readers. We shall, therefore, confine our notice here to a few plants of the highest value, not only in the countries which produce them, but in the most distant regions of the earth.

Of all the productions of the vegetable kingdom, that which has been the greatest favourite with man in every age, is the *vine*; the juice of which is a beverage sought after in every country which civilization has reached. It is not, however, a very general production of the earth; the cultivation of it is confined to narrow limits, for excess of heat seems as unfavourable to its growth as too much cold. Its southern limit is where the mean temperature of the climate is between 69° $8'$ and 71° $6'$ Fahrenheit; and its northern limit, 47° or 48° , where the temperature of the coldest month does not fall below 34° . It is only within the middle regions of the temperate zone that the vine comes to perfection, but within those limits it is found throughout western Asia. The finest grapes are produced in Asia Minor, Syria, and Palestine; but the vine is still found in its wild and native state in the forests of the ancient Colchis (at the eastern end of the Black Sea), climbing to the tops of the loftiest trees. Farther east the grapes and the wines of Shiraz and Mazanderan enjoy the highest repute in Persia. Vines are also found native along the upper banks of the Oxus, in Kashgar to the east of the Belur, in Kunawar, the British portion of Little Thibet, and also in Malwah or Central India. They are also cultivated in the gardens of Massia in Great Thibet; and, in China, on the shores of the Eastern Ocean, the vine is as plentiful, and the luxury of wine-drinking is as highly appreciated as in Europe. In France, Germany, and Hungary, the vine is the produce of art; farther south, and in the regions emphatically called *the East*, the vines are to be seen in their full native luxuriance, as delightful to the eye, as their produce is grateful to the palate. In all ages the vine has been a favourite theme with the poets of the East. The wine-bibbing Anacreon is notorious, and Hafiz, the national lyric poet of Persia, avows himself a most devoted admirer of this glorious beverage; and, indeed, the wine of Shiraz, the place of his birth and of his burial, is so highly esteemed, that the Persians say, that if Mohammed (who forbade the use of wine to his disciples) had tasted the pleasures of Shiraz, he would have prayed God to make him immortal there.

Next in repute to the vine is the olive, which is likewise confined to temperate climates, and is indigenous to Syria, along the eastern shores of the Black Sea, and at Tukht-i-Suleiman, near the Indus. The cultivated olive is easily reared in all parts along the shores of the Levant which are free from the visitation of frosty winds. It produces a very fine oil, which is in general use in all the countries where it is grown, and the history of the tree appears to be as old as the human race; for it was the leaf of an olive tree plucked off that Noah's dove brought to him in the ark.

Tea, which affords a wholesome and exhilarating beverage to all the nations of the eastern, central, and northern regions of Asia, and has become a necessary of life in Britain, is produced abundantly

in the southern provinces of *China*; the best is grown upon the hills of the province of *Foki-en*. It has also been lately discovered to be indigenous in *Assam*, within the limits of the British territories, and has been found to be perfectly adapted to the soil and climate of the Nilgherries in Southern India.

Rice is a necessary, and indeed the very staff of life, to the Hindoos, Indo-Chinese, and Chinese, who value it so highly, that they pity the Europeans for having no rice at home, and wonder how they can exist without it. It is produced abundantly in the well-watered plains of those countries, and requires great heat as well as abundant moisture to bring it to perfection. The same character is enjoyed by the date-tree in Arabia, and the neighbouring hot and sandy countries of the south-west. Its fruit there forms a principal article of food; and the simple people wonder how Europeans contrive to live without it. But for more detailed accounts of these and of the other vegetable productions of Asia, we refer to our special descriptions of the countries into which the continent is divided.

ANIMALS.—The mountains of Asia divide the continent into three zones, and this geological character of the country affects the distribution of the animals. In the central zone, which is composed of high mountains, or extensive sandy plains, we find, the Bactrian, or double-humped camel, the *tarpan*, or wild horse, the *jaghatai*, another species of horse so fleet, that the Mongols designate them the coursers of the sun; several kinds of horse-tailed bees, whose flowing tails are the ensigns of military rank throughout all the east; at least two species of antelopes, the *zeren* or yellow buck, which is as fleet as the *jaghatai*, and the *saiga*, which is almost blind. Panthers are found in the western regions; and also a singular species of cat, the *manul*, the original of the Angora cats. The Indian tiger has been seen in Siberia, even as far north as the head of the Obi; it is still common in Mazanderan and Azerbaijan; and appears to range northward to the borders of the Keroulun and Orehon in the country of the Khalkas, and as far as the Altai. Tigers likewise abound in China, and those which appear occasionally in Siberia, are natives of Mongolia, where they are hunted every year by the Emperor of China. Troops of several species of dogs, jackals, and wolves, prey upon the antelopes, asses, and wild horses. All the mountains are inhabited by the musk animal; the Altai by the *argali* or Siberian rock sheep; the southern mountains by the *egagre* or wild goat; Caucasus by the *egagre* and the chamois. The western prolongation of this zone, which extends through Persia and Arabia, is overrun by antelopes and gazelles; lions, panthers, caracals, and other sorts of cats, jackals, and monkeys. The mountains and table-lands produce also the *onager*, or wild ass, the original of those beautiful and fleet asses so much esteemed in the east. The single-humped or proper camel, is the aboriginal native of Arabia only, but is found also wherever the Arabs have settled.

In the northern zone, the river-banks, and the vast forests of Siberia harbour innumerable troops of reindeer, elks, brown, blue, and black foxes, bears, gluttons, and several species of martins and squirrels. Along the shores of the Arctic Ocean the great polar bear preys on every living creature. In the waters of the ocean are found seals and various kinds of ceracea. The lake Baikal, in spite of its fresh water, and its great distance from the sea, has also, like the Caspian, its particular species of seals.

In the southern zone every region teems with life. In India are several species of antelopes and deer, which were till within these few years unknown in Europe. In Thibet are swarms of blue antelopes whose horns, which fall annually, have more than once reminded English authors of the fabulous unicorn. There is also found the *Chitkari*, with four horns. In Bengal are the charming white spotted *axis*; in the forests of Orissa is found the *jungle-cow*, the wild original of the domestic heeves of India. In India there are few lions; but numerous fierce tigers ravage this, and the warm countries further east and south. Over the same regions is spread the black-skinned, half naked buffalo, with horns turned back, both wild and tame, delighting in the muddy banks of the seas, lakes, and rivers. Between the Ganges and the Indus the forests abound with squirrels, peacocks, pheasants, and jungle-cocks. Several species of bears, one of which was for a long time considered to be a sloth, inhabit the forests among the Ghauts. The elephant and the one-horned rhinoceros live in the forests, but it is in the countries S.E. of India that these animals attain their largest size. There also are found the two-coloured *tapir*, which ranges from Malacca to the southern provinces of China; *ourangs*, *gibbons*, and various other kinds of monkeys. In the Ganges alone 250 kinds of fish have been described by Buchanan, which furnish abundant food for the alligators with which its waters abound.

The birds are various in every zone, and adorned with rich plumage. Gigantic vultures tyrannize over the banks of the Indus, where are likewise found great numbers of eagles, falcons, buzzards, and screech-owls. Swarms of paroquets, of every variety of colour, inhabit the continent and the neighbouring islands.

Of domestic animals the elephant claims the pre-eminence, but is confined chiefly to the lowlands of India, Birmah, and Siam, being seldom seen in the mountainous region to the north. The camel is found over a far wider extent of country: it consists of two species, the one with two humps, the other with only one. The former, usually called the Bactrian camel, is comparatively rare, and seems to be indigenous to the great deserts of north-eastern Asia, and the table-land of Pamir, being only to be found in the south-west when taken thither by travellers. The one-humped species, usually misnamed the dromedary, is, on the contrary, the real camel, and is spread over Arabia, Persia, western India, and northern Africa, where it is the common beast of burden. The dromedary, properly so called, or racing camel, is only a variety of this latter species, is generally of a lighter form, and better adapted for rapid travelling or flight. The other domestic animals of southern and western Asia, are horses, mules, asses, buffaloes, heeves, sheep, and goats; of the central and eastern regions, chiefly horses, cattle, and sheep; the yak of Thibet and Pamir, and the bushy-tailed bull of Thibet seem to supply the place of the camel among the mountains, where they are used as beasts of burden. In the rigorous climates farther north, where the cattle become stunted in size, and can scarcely subsist, their place is supplied by the rein deer, which furnishes the people both with food, and with the means of transport. During part of the year they subsist upon its flesh and milk; its skin furnishes them with the principal part of their dress, and its horns with various utensils. In Kamtschaka, and the other north-eastern regions, dogs are trained to draw sledges in winter over the frozen snow.

The southern countries of Asia produce reptiles, many of which are armed with the most fatal poisons; they are all hideous to the sight, and some of them are of prodigious size and muscular strength; but they are scarcely found beyond the Altai. All sorts of insects, as musquitoes, gnats, ants, flies, most of them noxious and destructive, swarm in the southern regions; even during the short summer of the north the mosquito and other troublesome insects abound in the woody regions of Siberia. But the most mischievous of all these winged creatures is the locust, which appears occasionally in the sandy regions north-west of India; and is found in countless swarms in Arabia and Syria. It is also frequently found to the north of the Altai, at the sources of the Irtysh, whence it extends its destructive flight as far as the Crimea and the southern provinces of Russia in Europe.

PEOPLE.—Asia contains a great variety of tribes and nations, most of which will be enumerated in the subsequent table. Of these the five principal races, the Hindoos, the Chinese, the Tatars or Tartars, the Arabs, and the Persians, seem to have divided among them as a kind of inheritance, the continent and the adjoining islands, and still occupy the greater part of them. The origin of these races

is buried in the most remote antiquity, and has formed a very fertile subject of discussion among antiquarian philologists and physiologists. The Hindoos and the Arabs are generally considered as belonging to the Caucasian or white race of mankind, though, in respect of language, they are entirely different; the former appearing to be allied to that family whose various dialects have been classed together as the Indo-Germanic, and who seem to have spread from a common centre, somewhere in south-western Asia, into Europe on the one side, and Persia and India on the other; while the Arabs, on the contrary, belong to the Semitic family, who seem to have been always confined to the great peninsular region, which extends from the mountain ranges of Taurus and Zagrus to the Mediterranean and Red Seas, the Persian Gulf, and the Indian Ocean. The ancient Medes and Persians seem to have belonged to the Indo-Germanic family and to the Caucasian variety; but the modern Persians are a very mixed race, formed by the commingling of Persians, Arabs, Turks, Tartars, Mongols, and natives of the Caucasian Isthmus. The Tatars or Tartars differ entirely from the Hindoos and the Arabs in features, complexion, and form, as well as in manners and language. They all speak the Turkee or Turkish language, and form the majority of the population of Turkestan, the western part of Chinese Tartary, and the southern provinces of Russia; are spread in various tribes throughout Persia; and constitute the original stock of the Osmanlee or Ottoman Turks, who have long been the dominant people of south-western Asia. It has been doubted whether the Osmanlee are of the Caucasian or of the Mongolian variety; but some of the other branches of the family, who speak the purest Turkish dialects, are unquestionably Mongolian; though they must be distinguished from the Eastern Mongols, who speak languages apparently of different origin. The Chinese, according to the institutes of Menu, were originally a military tribe of Hindoos, who, abandoning the ordinances of Brahma, migrated eastward, and laid the foundation of the Chinese empire; but this theory seems to be extremely improbable. The Chinese are unquestionably of the Mongolian variety; and their monosyllabic language and figurative alphabets seem to have no analogy with any of the languages or alphabets of India. According to M. Balbi, all the nations and tribes of Asia may be classified according to their languages, as in the following

TABLE.

THE SEMITIC FAMILY.—The *Jews*, who are scattered over a great part of Asia, but are found in the greatest numbers in Ottoman Asia and Arabia. Many are also met with in India, Persia, Turkestan, and China. The *Arabs*, who are the most numerous and powerful branch of this family, occupy nearly the whole of Arabia, the greater part of Syria and Mesopotamia, with parts of Khuzistan and Fars in Persia; they have likewise several settlements on the coasts of Malabar and Comorandel, in Turkestan, and in the regions of the Caucasus.

GEORGIAN FAMILY.—The *Georgians*, in Georgia and Imeritia; the *Mingrelians*, the *Sevanes*, and the *Lazes*, at the eastern extremity of the Black Sea.

ARMENIAN FAMILY.—The *Haikans*, commonly called Armenians, form the great mass of the population of Armenia; they are also numerous in Georgia, Shirwan, and Azerbaijan; and are scattered, besides, through all the commercial cities of Turkey, Persia, India, Turkestan, and even in some parts of China. The *Abasses* or *Abasne*, who inhabit Abakhssethi, or the Great Abassie; several tribes of whom are vassals of Russia. The *Natoukhashi*, one tribe of whom are notorious for their predatory habits.

PERSIAN FAMILY.—The *Persians*, *Parsees* or *Guebbers*, of whom the greater number are settled in Gujerat and Konkan in India, and in Yezd in Iran. They are found also in smaller numbers in Kerman, Moultan, and at Baku in Shirwan. The *Tanjijs*, better known under the name of *Iranee* (pronounced *Eraucnee*) or *Persians*, who are believed to be the descendants of the original Arab conquerors who overspread Persia during the most brilliant period of Islam prosperity, form the principal mass of the population of Iran, and are likewise the most numerous and polished nation of this family. The *Bukharians*, who are the indigenous people of Great Bukharia, and of the principal towns of Chinese Turkestan. They are also found dispersed as merchants in the large town of Siberia, Central Asia, and China. The *Kurds*, and the *Lourees*, in Kurdistan and Louristan. The *Affghans* or *Poushtaneh*, in Afghanistan and the north-western parts of India, and in Rohileund, in the north-east of India. The *Belootshees*, who possess the south-eastern parts of old Persia and the country of Sindh, on the lower part of the Indus.

HINDOO FAMILY.—This is one of the most numerous families on the globe. Their habitat extends over the whole of India, to the north of the Tuptee and Godavery. The principal branches of this family are: The *Moguls*, originally composed of Turks, Bukharians, and Persians, who speak the Hindoostanee language, and originally formed the ruling class in the Mogul empire; they are found principally in Hindoostan or Northern India. The *Seikhs*, the ruling people of north-western India; the *Bengalees*, who form the mass of the people of Bengal, and some parts of the bordering provinces; the *Mahrattas* who occupy the western part of the Deccan, and parts of Mahra, Khandeish, and Gujerat; the *Singalese*, in Ceylon; the people of the *Maldives*; the *Zingawes* or *Gipsies*, a numerous tribe scattered over Europe and Western Asia, and found also in some parts of Northern India.

MALABAR FAMILY.—This family comprehends the people who inhabit that part of India which lies between Cape Comorin and the Tuptee and Godavery. The principal branches are: the *Malabars*; the *Tamul*, who inhabit the Carnatic; the *Telinga* or *Telugoo*, who extend from Pulicat to Orissa.

The *Garrors*, the *Kathes*, the *Gonds*, the *Bheels*, and other tribes, who have dwelt from time immemorial in India, do not belong to the families which form the great mass of the people of that country. They are more or less distinguished by their savage and barbarous customs.

THE CHINESE FAMILY are the most numerous on the globe. The *Chinese* form nearly the entire population of China; they are also settled along the coasts of Hainan and the west coast of Formosa, in Siam, Malacca, Singapore, Penang, Ceylon, Calcutta, Mauritius, and have even found their way to Brazil. The *Minnami*, or *Mijnawani*, or *Birmans*, are the principal occupants of the basin of the Irrawaddy. The *Moans* or *Peguans* inhabit Pegu. The *Tai* or *Tai-nui* (pronounced *Tie*), called also *Laos*, *Shyans*, *Shans*, and *Siamese*, are the ruling people of Siam, and occupy the whole of Laos. The *Annamites*, subdivided into *Tongkinese*, who are the most numerous, and *Cochin-Chinese*, who have become the ruling people of the empire of Annam. The *Siam-pi* or *Corans*.

THE JAPANESE FAMILY, spread over all the empire of Japan, where they form nearly the entire population. In respect of power and civilization, they occupy the first rank among the Asiatics. The *Loochoons* are a branch of the same stock.

The *Manootes*, the *Lobs*, the *Mientings*, are numerous tribes who are found in China, but do not belong to the Chinese stock. The inland savages of Hainan, the *Kemays* in the mountains which separate Laos from Cochin-China; the *Play* or *Karens* in Birmah, are other savage tribes unconnected with the more civilised nations among whom they live.

THE TUNGUSE FAMILY.—The *Tunguses*, subdivided into *Mandchours*, and the proper *Tunguses*. The former have been, since 1661, the ruling class in China, and are very advanced in civilization. They form one half of the inhabitants of Liaotung, and the entire population of Manchusia, as far as the confluence of the Oussuri and the Amour. The proper Tunguses, who are inferior to the others in civilization, are confined to the Russian empire, where they are spread over the third part of Siberia, from the Yen sei to the sea of Okhotsk. The Mandchews present a remarkable phenomenon in

the history of civilization. It is scarcely 250 years since they were nomades, ignorant of the elementary arts of reading and writing, whereas they now possess a rich literature, particularly valuable for the knowledge of the literature of China, which they have communicated through the medium of translations from the original works. It is the Mandchew, and not the Chinese, which forms the language of the Court of Peking.

THE MONGOLIAN FAMILY.—*Mongols, Kalmucks, and Burates.* The Mongols, subdivided into *Mongols* properly so called, *Khalkas*, and *Sharaigol*, or *Mongols* of Thibet, occupy Mongolia and a part of Thibet, along with Hohonor, in the Chinese empire. Some of them are also found in Asiatic Russia. The *Kalmucks* or *Olet* inhabit a great part of Soongaria. The *Burates* are found in the government of Irkutsk.

THE TURKEE FAMILY.—The *Osmanlee*, or *Othmanlee*, or *Othman* or *Ottoman Turks*, are the dominant people in the Ottoman empire, and the principal and most civilized branch of this family. They are most numerous in Asia Minor. The *Usbecks*, or *Ouzbecks*, or *Usbeks*, are the dominant race in Independent Turkestan. The *Turks* of Siberia, or *Touradians*, who are the pretended *Tartars* of Siberia, or *Touralian Tartars* of geographers, are spread over the governments of Tobolsk, Tomsk, and Ienisseisk. The *Turcomans*, subdivided into a large number of stocks and branches, are spread over Afghanistan, Turkestan, Ottoman and Russian Asia. In Persia they have for more than a century been the dominant race. The *Kirghiz*, subdivided into *Bourouts* or Eastern, and *Kazak* or Western. A part of the Bourouts are tributaries of China; the greater part of the Kazaks are vassals of Russia; the remainder are independent. The numerous tribes which have been named appear to speak dialects of the Turke language. The following tribes speak kindred languages: the *Sokhs* or *Yakouts*, in Ienisseisk and Yakoutsk, the most eastern and northern of all the people of this family, and also the least civilized; the *Tshouwashes*, named improperly *Mountain Tartars* by the Russians, wander over a part of Orenburg.

THE SAMOIED FAMILY.—The *Tawghis*, extending from the Ienissei to the Lena, are the most northern people of the old world. The *Ouriangkhai* are the most southern tribe of this family. The most of them are found within the Chinese empire, between the Syanian mountains and those of Altai and Khangai; the rest are found in Russia.

THE IENISSEIAN FAMILY.—The different tribes of this family are usually confounded by geographers with the Ostiaks, who belong to the Finnish stock. They are chiefly confined to the government of Ienisseisk; the *Denka*, the *Imbask*, the *Poumpokolsk*, the *Kottes*, and the *Assanes*, are the principal tribes.

THE KORIAK FAMILY comprises only the small and savage tribe of this name, which is found at the north-east of Asia, in the districts of Okhotsk, Kamtschatka, and the country of the *Tshouktshi*, (Chukchee.)

The **ANDON-DOMNIOR YOCKAGHIRES**, are a scanty race, whose tribes inhabit the country between the Yakoutes and the Koriaks, along the Icy Ocean, from the Iana to the Kolyma.

THE KAMTSCHATDALE FAMILY, very few in number, and chiefly fish-eaters, occupy the peninsula of Kamtschatka.

THE KURILIAN FAMILY.—The *Kurilians* or *Kuriles* inhabit the Kurile islands and the southern point of Kamtschatka. The *Ainos* or *Iesso* occupy the island of Iesso. The *Tarakai* or *Ainos* of Takakai or Seghalien; the *Giliaki* occupy that part of Manchuria to the east of the Oussouri, and are named *Fiaka*, or *Kedjen*, by the Mandchews.

THE URALIAN or TSCHUDE FAMILY.—The *Fougoules* or *Mansi*, who are found between Kourgan and Beresov, in the government of Tobolsk; the *Ostiaks*, distinguished as the *As-Iakh* or *Ostiaks of the Obi*, the *Ostiaks of Kerssor*, of *Iougan*, of *Narym*, &c.

THE MALAISIAN FAMILY; the aboriginal natives of Formosa: the *Malays*, who form the principal part of the population of the peninsula of Malacca, and the neighbouring islands. We must, however, except the mountains in the interior of the peninsula, which are inhabited by a negro race of an entirely different origin.

Besides these native Asiatic families there are numerous colonies of Europeans in most parts of Asia; *Greeks* in the Ottoman empire; *Russians* in Siberia; *English*, *Scotch*, *Irish*, *Portuguese*, and a few *French*, and *Danes*, in India; *Dutch* in Ceylon, Java, and the Moluccas; *Spaniards* in the Philippines.

GOVERNMENT.—If we understand by a *despot* an absolute monarch, who disposes of the property, the honour, and the lives of his subjects, employing them with indefinite and uncontrolled authority, we nowhere in the civilized states of Eastern Asia find sovereigns of this kind, notwithstanding all the declamations to which the governments of those countries have been subjected. Everywhere manners, ancient customs, received opinions, and even errors, form more embarrassing restraints upon power than written stipulations, which tyrants can so easily get rid of by force or fraud. It is only in some Moslem states, and particularly in Persia, that we met with the most hateful despotism, and that degrading servility which has been usually attributed to all the nations of Asia. The kings of Asia have been taken for despots because they are approached on the bended knee. They have, indeed, assumed to themselves the titles of gods upon earth, vicegerents of Allah, brothers of the Sun and Moon, asylums of the universe, and similar designations, and they have been considered as such, without obstacles opposed to their *will* by religion, customs, manners, and prejudices being taken into account. The governments of Ottoman Asia, Persia, Russia, Bukharia, and others in Turkestan, India, Chin-India, China, Japan, and some of the islands are despotisms, differing in degree.

Besides the ancient republics, established in the Greek cities of Asia, and in Syria and Palestine, we find in the centre of the continent, tribes whose political institutions are pre-eminently republican. The principal of these are the Afghans between India and Persia.

Asia likewise contains many nations whose governments may be compared to those of the European kingdoms of the middle ages; such were the *Mahrattas* before the downfall of the *Peishwa*, and the Afghans before the late subversion of the kingdom of *Kabul*; and such are still the *Belootshees*, the *Mongols*, the *Kalmucks*, the *Mandchews*, several *Turkee* tribes, and some nations of *Caucasus*, particularly the *Circassians* and *Abassians*. Even the empire of Japan is, properly speaking, nothing else than a feudal monarchy, ruled by a prince, who may be compared to the French mayors of the palace. Some nations are entirely free, as the *Bedwin Arabs*, the *Kurds*, and several tribes of *Caucasus* and *Syria*. The small nomadic nations of Asia, and many of the Arab tribes have a pastoral or patriarchal government, which is generally hereditary in certain families; others are governed by the elders, and form republics. Thibet, Boutan, and parts of Arabia, have a sort of theocratic government. The imams of *Sanaa* and *Muskat* are a sort of political high priests invested with temporal power, while the rulers of Thibet and Boutan are absolute pontiffs, bearing the titles of *Dalai-lama*, *Bogdo-lama*, and *Dharma-lama*, and are considered as emanations of the Deity himself. In general we may say that Asia affords examples of every possible kind of government, from the most licentious republicanism to the most atrocious despotism.

DIVISIONS. In the following description of the different countries of Asia, we shall consider them under the following heads:—*Ottoman Asia* or *Turkey*; *Arabia*; *Persia*; *Affghanistan*; *Beluchistan*; *India*; *South-eastern Peninsula*; *Chinese empire*; *Turkestan*; *Russian Asia*; *Japan*.

TURKEY, or OTTOMAN ASIA.

ASTRONOMICAL POSITION.—Between 30° and 42° N. latitude, and 26° and 49° E. longitude.

DIMENSIONS.—The greatest extent of Turkey in the direction of the meridian, from north to south, is about 850 miles, and from east to west, about 1200; but, measured diagonally, from Constantinople to the mouth of the Euphrates, the extent is 1400 miles, and from the southern border of Palestine to the north-eastern extremity of Turkish Armenia, about 1100. The area, however, by no means corresponds with a square of these dimensions; for the outline is so much indented by seas on the one side, and by the sandy deserts of Arabia on the other, that the superficial extent hardly exceeds one-half of that square, or about 500,000 square English miles.

BOUNDARIES.—*Northern*:—The Black Sea and the Russian province of Imeritia. *Southern and South-western*:—Arabia and the Mediterranean Sea. *Eastern*:—Persia and Russian Armenia. *Western*:—The Archipelago, Dardanelles, Sea of Marmora, and Channel of Constantinople.

GENERAL ASPECT AND CLIMATE—This extensive region consists of at least three portions, which are geographically distinct, namely, *Asia Minor* and *Armenia*; *Mesopotamia*, *Assyria* and the low countries watered by the *Euphrates* and *Tigris*; and *Syria*, including *Palestine* or the *Holy Land*.

Armenia and the northern part of *Kurdistan*, form an elevated table-land, or series of plains and valleys, some of which are 5500 feet above the level of the sea, intersected and overtopped by ranges of mountains several thousand feet higher. This table-land is, however, a fertile corn country, and abounds also in pastures, though the climate is cold, and in winter the country is covered with deep snow. It is separated from the low country on the Black Sea, in the neighbourhood of Trebizond, by a triple range of mountains, which attain their extreme elevation of 6000 or 7000 feet, at the distance of twenty-four miles from the sea, and are covered with forests to the height of about 4500 feet; but, farther up, the country in general is bare of trees, except in some recesses of the mountains, where forests exist, even in the more elevated central parts. The passes from the coast are numerous; but, with the exception of those which follow the courses of the larger rivers, they are difficult, and many of them are open only in summer. The soil is for the most part fertile, and the country well watered. From Armenia two ranges of mountains proceed westward into the peninsula of Asia Minor; the one the ancient *Taurus*, which stretches parallel to the shore of the Mediterranean Sea, and then dividing into a number of branches, which intersect the western part of the peninsula, and form as many fertile valleys, watered by fine rivers, terminates on the shore, or in the islands, of the Archipelago. The other chain, *Anti-Taurus*, extends into the interior of the peninsula in a south-westerly direction, and is probably connected with *Taurus* in the neighbourhood of Kaisariyah, and also with the lofty mountains which, under various names, occupy the country between the Kizil-Irnak and the Sea of Marmora. The central part of the peninsula, supported on all sides by these mountains, forms a series of elevated table-lands, nearly destitute of trees, but abounding with pasturage, which affords a plentiful subsistence to the flocks of the wandering Turcomans. The plain of Kutahya is 6000 feet above the level of the sea; and that of Sivas, 350 miles farther east, about 3900. Some of the valleys are so completely surrounded by mountains as to have no outlet for their waters, which, in consequence, not only overflow large tracts of country in the rainy season, but also form a number of permanent lakes. The south coast presents an irregular outline, with a very bold front to the sea; an almost continuous mass of lofty mountains presses close upon the shore, and at some points forms the coast, terminating in bold promontories. Near the eastern end, however, the mountains are distant from the sea, and leave room for the wide plains of the ancient Cilicia. The west coast presents a very irregular outline, consisting of deep bays, with long peninsulas, promontories, and islands. The northern coast, along the Black Sea, is also lofty and rocky, with deep water close to the shore, and is lined with ranges of mountains at no great distance inland, covered with trees; the forests of which are so extensive, that, in one place, the Turks have given them the expressive designation of *Agatch-dengiz*, sea of trees. The nucleus of some of these mountain chains seems to consist of granite and other primary rocks; but in various places these are associated with beds of marble and quartz rock, hippurite limestone, and schists; tertiary and lacustrine marine deposits, ancient and modern igneous rocks, and recent aqueous accumulations. The micaceous schist and associated rocks occupy, however, a very important place in the geology of Asia Minor, and form nearly all the mountain chains which intersect the western portion of the peninsula. The hippurite limestone, the only representative of that vast system of rocks which occupies a large portion of Europe, and is usually termed secondary, is even sparingly displayed in the north-western part of Asia Minor. Tertiary lacustrine formations occur in almost every valley, and marine deposits are found in several places. Volcanic rocks are of frequent occurrence; trachyte is abundantly scattered over the western part of Asia Minor; the whole country between Isnik and Kutahya appears to consist of agate or chalcedony, the strata being beautifully varied; and, in the centre of the peninsula, the lofty peak of *Arish-dagh* (anc. *Argæus*) which rises to the great elevation of 13,000 feet, consists entirely of volcanic rocks and scoriaceous cinders, having its sloping sides studded all round with numerous cones and craters. *Hassan-dagh*, to the south-west of Arish, is also volcanic, and rises to the height of 8000 feet; and 90 miles east of Smyrna, *Kuduh*, a volcanic peak, rises to 2780. But the most singular portion of Asia Minor is the volcanic district of *Kutacearanene*, or the burned-up region, about 90 miles eastward of Smyrna, which bears a striking resemblance to the volcanic region of Auvergne. It extends about 19 miles east and west, and about 8 from north to south, and consists of volcanic mounds, which rise partly amidst the lacustrine limestone of the valley of the Hermus, and partly on the slope of the schistose hills which bound it on the south. The mounds consist of

scoriae and lava, and are referable to two epochs, indicated by the difference in their state of preservation, and the appearance of the lava streams. The older cones are low and flat; their craters have disappeared, or are marked by a slight depression, and all their prominences seem to have been smoothed by time. They are also covered with vineyards, which produce the Katakecaumene wine, celebrated from the time of Strabo to the present day; and the streams of basalt or lava which have flowed from them are level on the surface, and covered with turf. The newer volcanoes, only three in number, though they have been extinct for more than 3000 years, preserve all their characters unaltered; the craters are perfectly defined, and their lava streams are black, rugged, and barren.—(*Hamilton, Trans. Royal Geological Society, Lond.*)

It, says Mr. Fellows, a line be drawn upon the map to include the elevated table-land of the interior, and the field of burnt or volcanic matter, it will precisely trace the boundaries of the ancient Phrygia on the north, west, and south; following even the singular forms which it projects into Caria, Lycia, and Pamphylia. The cold, from the great elevation of the country, is so severe that no plants are to be seen, but such as are found in the Highlands of Scotland, where they suffer less from severity of climate than here. The summer is of very short duration. On descending from this elevated country, every diversity of climate is met with, till the traveller reaches the productive valleys of the rivers, and the warmer lands on the coast. During summer the heat becomes intense as the morning advances, but before noon a cold breeze descends from the mountainous country, which brings with it a refreshing coolness, accompanied by a shade of clouds, and not unfrequently by flying showers. In the early part of the evening the heat again becomes oppressive, and the dews are very heavy. To the intense cold of the winter it must be attributed, that neither the aloe nor the cactus, nor any succulent plant is to be seen in the country; the frosts of winter being too severe for them. Orange and lemon trees are with difficulty preserved in the sheltered valleys; the olive seldom flourishes, even in a similar situation; and they are all inferior in growth to those of Sicily, Calabria, and Greece. The extremes of the seasons are farther shown by the migration of the animal kingdom, which takes place to a great extent. The scenery of Lydia and Mysia is varied and beautiful, the hills being well wooded with splendid forest trees. In the forms of the mountains there is more of beauty than of grandeur; the peculiar feature is the great contrast between the hills and the valleys, the latter being so level as to appear to have been formed by lakes. In Bithynia the scenery is of a bolder character, its fine mountain range of Olympus, giving it a resemblance to Switzerland; its valleys are also richly covered with luxuriant woods. The flat-topped hills and immense table-lands of Phrygia, which are often swampy, and seldom produce a tree, present more of the wild and the dreary, than of the picturesque. Pisidia, including the Taurus, again, partakes of the Alpine character; but the woods are not so finely grown as in Bithynia. The extreme beauty of Pamphylia is derived more from distant effects than from near views. The marble mountains, which form the distant horizon, about their jagged peaks of silvery rock, sometimes capped with snow, against the clear sky, while their bases are washed by the blue sea, which they enclose in their wide-stretched arms. Lydia is more mountainous, and resembles, while it far exceeds, in the boldness of its cliffs, and the richness of its vegetation, the scenery of Parnassus. Its valleys, and particularly that of the Xanthus, are of peculiar beauty. Caria abounds in scenery of the most picturesque kind, its coasts being broken into bold headlands, whose ranges, continued into the sea, rise into rocky islands. The south-east of Lydia is less beautiful, and much resembles Sicily or Calabria; but, on approaching Smyrna, this district contains valleys equal to those near Salerno or Naples.—(*Journal written during an Excursion in Asia Minor, by Charles Fellows.* London, 1838. Pp. 300-303.)

The country watered by the Euphrates and the Tigris, forming the south-eastern region of the empire, is bounded on the north by the table-land of Armenia, and the lofty ridges of Taurus; on the east by the long line of mountains (anc. *Zagrus*) which, under the names of the mountains of Kurdistan, Louristan, Bukhtiar, &c., divide it from the table-land of Iran; on the west and south-west, by Syria, and the deserts of Arabia; and on the south-east it barely touches the Persian gulf. Assyria, including Taurus, is distinguished by its structure, its configuration, and its natural productions, into three zones or districts; by structure into a district of metamorphic and plutonic rocks; a district of sedimentary formations; and a district of alluvial deposits; by configuration into a district of mountains; of stony or sandy plains, and of low watery plains; by natural productions into a country of forests and fruit-trees, of olives, wine, corn, and pasture, or of barren rocks; a country of mulberry-trees, cotton, maize, sesame, tobacco, or of hardy labiate and composite plants, or barren clay, sand, pebbly or rocky plains; and a country of date trees, rice, and pasture, or a land of saline plants, liquorice, reeds, sedges, and rushes. The first of these districts comprises the hilly and mountainous country commonly called Taurus, which is composed of many different chains. Taurus consists of a central nucleus of granite, gneiss, and mica schist, associated with limestones, diorites, and diallage rocks; of lateral formations of diallage rocks, serpentines, actynolite rocks, steaschists, slate-clays, and outlying sandstones and limestones. The mean elevation of the crest of the Taurus varies in different places from about 2900 feet to 5650. To the south of the main chain lies the plain of Diyarbekr, 2500 feet above the level of the sea, and separated from the mountainous district of Arghana by ranges of indurated chalk. The climate of Taurus presents cold winters with much snow, and hot summers. In some of the valleys the natives themselves complain of the excessive summer heats. The influence of warm days and cold frosty nights in spring, is to forward vegetation and yet preserve the snow. In March, the almond tree, pear, medlar, and laburnum are in blossom in the valleys. The most remarkable feature, however, is the abundance of trees, shrubs, and plants, in the northern, and their comparative scantiness in the southern districts. Among the useful and cultivated plants may be mentioned the vine, fig-tree, almond, olive, wheat, triticum spelta, hordeum hexastichon, and h. distichon. Gall nuts, pears, apples, and apricots, are abundant. The roots of astragalus christianus are eaten; the rhus coturnus is used for dyeing skins red; and the rhamnus catharticus and valantia articulata for dyeing yellow. The second district, comprising the plains of Syria, Mesopotamia, and the Country to the east of the Tigris, to the mountains of Kurdistan, consists of cretaceous and supracretaceous deposits, here and there interrupted by plutonic rocks, of the feldspatho-pyroxenic family. The character of the plains varies with the elevation and latitude, as well as with the quality of the soil, and from the presence or absence of moisture. The upland of feldspatho-pyroxenic rocks, which extends from Jezirah to Tel Sakhan near Nisibin, and which has a mean elevation of 1550 feet, is a stony wilderness, amidst which there is little or no cultivation, and where, nevertheless, numerous flocks of sheep and herds of cattle obtain a scanty subsistence during a great part of the year. The great plains of northern Syria, with a mean elevation of 1300 feet, of Northern Mesopotamia, from Urfa to Rakkah, and from Nisibin to El Hathar, and the Chaldean plain, east of Nineveh, that of Arbil and of Altun-Kupri, present characters pretty nearly similar, an almost uniform level, with a soil possessing good agricultural qualities, but barren from want of irrigation. The exceptions to this are where the plains are intersected by hills, or in spots at the heads or on the banks of rivers or rivulets, where they can be irrigated, and which, in consequence, become the permanent residence of agricultural tribes, the seat of cultivation and prosperity, or the temporary resort of nomadic Arabs and Turcomans. Fertile districts of this kind are abundant; the plains of Urfa and Harran are watered by numerous streams. The climate is characterized by great dryness, combined with very great variations of temperature; Fahrenheit's thermometer has been observed at 115° in the shade, in the month of August, while, in winter, it has fallen as low as

12°. From the Mediterranean Sea to the Tigris, there is an increase of cold in the same parallels from west to east; which is not the case, however, in the plains east of the Tigris, which, being sheltered by the mountains of Kurdistan, have a more temperate winter. The influence of Taurus, which is clad for so many months with snow, is considerable in reducing the winter temperature; and on the plains of northern Syria and Mesopotamia, from the want of sheltering hills, causes the vegetation to be really less southern than that of Sicily and Andalusia. At the same time, the long extent of littoral mountains, Amanus, Cassius, and Lebanon, adds to these unfavourable circumstances, by impeding the passage of mild breezes from the Mediterranean Sea. Notwithstanding these circumstances, the direct heat of the sun, increased by radiation and the equality of level, is almost without a moderating influence; for evaporation is nearly null, and hence, where the winter temperature is slow, the summer heats are intense. It is on this account that there are few annual and tender plants, while the woody and tough stems of vivacious species, resist better such opposite influences. For two months in the year, October and November, vegetation is dormant, everything is burnt up, and no new forms appear; but, after this period, clouds from Lebanon, and changes of temperature on the mountains to the north and the east bring down, over Mesopotamia and Adiabene, moderate but refreshing rain. The brown and fallow colour of the ground changes, grasses begin to increase and spread, and notwithstanding the subsequent frosts and storms, some composite bud, without flowering; but the succession of vegetation is kept up by those families which have succulent roots, nodes, or bulbs, which preserve moisture, so as to maintain life even in the driest soil. Sleeping during the summer heats, they awake to activity with the first rains, and some send forth prematurely their leaves and even buds in October. They are soon, however covered with snow, and blasted by the wintry winds; till early in spring, when the same precocious plants make their appearance with all that vivid beauty of colour and variety of form, which have lent to the poet and the painter their not always faithful pictures of the East. The absence of trees on these great plains is a phenomenon difficult to account for. The vegetation is ephemeral, or consists of succulent and herbaceous biennials. Willows, however, grow on the banks of the Euphrates; and the oriental plane, near springs and tombs, rises to an enormous size. The desert described by Xenophon, extending from the Khabour to Rehoboth, still preserves the features of his day, "full of wormwood; and if any other kinds of plants grow there, they have for the most part an aromatic smell." Wild asses or horses are still met with; but ostriches are rare.

The alluvial plains of *Babylonia*, *Chaldea*, and *Susiana*, which form the third district, have their northern limit a few miles above Felujah; on the west they are bounded by a line of rock and sand not far from the Euphrates; and on the east, by the Hamrun hills, a long range composed of tertiary sandstones, with salt, gypsum, and limestones, which crosses the Tigris above the 35° N. lat. The plain, in the north-western or upper portion, has a slight but well-defined southerly inclination, with local sinkings above Felujah, undulates in the central districts, and then subsides into mere marshes and lakes. The soil of the northern part is pebbly, and this is succeeded lower down by a continuous formation of clayey soil covered with mould, dust, or sand, or the more tenacious clay of frequent inundations. The modern accumulations are still very great. Numerous canals, extending from the one river to the other, at certain seasons inundate the whole country, and leave permanent marshes in some places. But the natural level is everywhere altered by artificial works, as mounds, walls, mud-ramparts, and dykes; elevated masses of friable pottery are succeeded by low plains inundated during a great part of the year, and the old beds of canals are visible in every direction. There is still some cultivation and some irrigation; flocks pasture in meadows of coarse grass; and the dusky encampments of the Arabs are occasionally met with; but, except on the banks of the Euphrates, there are few remains of the date-groves, vineyards, and gardens, which adorned the country in the days of Xenophon; and still less of the labour and population which must have made a garden of such a soil in ancient times. *Babylonia*, strictly so called, extends only to the marshes of Lemlun, (32° N. lat.), the soil of which consists for the most part of a soft alluvial clay and mud, containing only river and lacustrine shells. The greater part of the basin, which stretches forty miles along the Euphrates, and extends many miles on each side, is occupied by water or vegetation, where large herds of buffaloes feed; and in some places, during summer, the mud is covered with luxuriant crops of rice. Below Lemlun, there is little indication of change; a gradual elevation of soil, so gentle as to be scarcely perceptible, but affording ground fit for cultivation in the dry months, leads to plains of wide extent, only a few feet higher than the marshes, which form the ancient territory of *Chaldea*. The vegetation is characterized by saline plants, the river banks are fringed with shrubberies of tamarisk and acacia, and occasionally with groves of poplar. Below Suk-el-Sheikh the country is occupied by an almost perpetual inundation, and at Omu-el-bak (mother of mosquitoes), the waters spread out like a great lake, extending to the verge of the horizon, and are only here and there interrupted with groves of date trees and huts. To the south of these great inundations, as far as the confluence of the Euphrates and Tigris, the land is covered by an aquatic vegetation, chiefly by a kind of agrostis, which, like the cane-brake of North America, has the appearance of the true reed of northern Europe. These tracts present every where great uniformity of feature, a boundless growth of plants of the same kind, interrupted by lakes and ponds, or intersected by artificial canals. The character of the country below Kornah is very similar, being fringed with date-trees along the river sides, and beyond these it is inundated at one season, and forms a naked plain at the other, without a moss or a lichen to feed the piping sand-grouse; a barren and desert waste of mud and sand, covered with water for nine months in the year. The banks, however, are lined with groves of date trees, and at times afford a rich pasturage for buffaloes. Villages are numerous, but the population is scanty. (*Ainsworth's Researches in Assyria, Babylonia, Chaldea, &c.* London, 1839.)

Kurdistan, which forms the north-eastern portion of ancient Assyria, and extends also into Persia, presents an immense succession of hill and valley, with dells and plains of exhaustless fertility, and towering mountains. The summits of the great range of Zagrus rise to upwards of 14,000 feet; their ridges are clothed with forests as far up as 6000 feet; above that height the country is less covered, though in some of the recesses there are forests even in the more elevated spots. The trees are walnut, beech, pine, oak, cedar, white and red mulberry, cherry, apple, pear, medlar, and apricot, juniper, wild plum, wild rose, wild madder, and vine. The climate is excessively cold during the greater part of the year; and the hills are covered with snow for eight months.

Taurus, in its progress westward from the Euphrates, sends forth several spurs into Syria, the principal and most westerly of which bears the names of *Alma-dagh* and *Jaur-dagh*, the ancient *Amanus* and *Pierus*, which terminate near the mouth of the Orontes, and form the boundary between Syria and Asia Minor. On the south side of the mouth of the Orontes, *Jebel el-Akrad* (Bald-hill), the ancient *Cassius*, rises abruptly to the height of 5314 feet, and is continued to the east by the *Jebel Chakimah* and the hills of Antioch, as far as to the southern valley of the Orontes. To the south the hills of Antioch are continued by the *Jebel Kraud* to the *Nosairi Mountains*, which extend southwards, in connection with *Lebanon*. About 31° N. lat. the chain divides into two ranges, the eastern and the western; the former being the *Libanus*, the latter the *Anti-Libanus* of the Greeks, which enclose between them the long narrow valley of *El Bekaa*, or Hollow Syria. The western branch terminates near the sea-coast, to the southward of Sidon; while the eastern branch, in nearly the same parallel, divides again into two ridges, the one of which passes into Arabia, along the eastern side of the valley of the Jordan. The other extends southwards, along the western side of the

Jordan, forming the watershed between the basin of the Dead Sea and the valleys which send their waters to the Mediterranean, and covering the interior of Judea with a wilderness of barren mountains. *Mount Carmel* forms a bold promontory on the south-western side of the Bay of Acre, and has an extension south-eastwards till it joins the mountains of Judea. Farther south, these mountains become connected with the rocky chains which traverse the Petrean Arabia, and fill up the space between the Gulf of Suez and the Gulf of Akaba. The diverging range of the Libanus, which forms the north-eastern part of the valley of the Upper Jordan, was the *Hermion* of Scripture; and farther south were the mountains of *Gilead*. These mountain ridges form a number of valleys, the principal of which extend north and south; but besides these is a great number of transverse valleys along the sea-coast as well as in the interior. The crest and acclivities of the *Nosairi Mountains* are almost uniformly barren and destitute of forests; their outline is tame, and the general elevation of the chain hardly exceeds 1000 feet. They are steep towards the *Valley of the Orontes*, which lies between them on the west, and the *Jebel-Shaashabou* on the north-east, and is called *El Ghab*. The valley is inhabited by a mongrel race of Arabs and Fellahs, who live, in winter, in a few villages dispersed over it, of which they cultivate only the land adjacent to their dwellings. On the approach of hot weather they retire with their flocks and herds to the eastern mountains in search of pasture, and to escape the swarms of flies and gnats which infest the Ghab at that season. Towards the west the Nosairi Mountains descend in irregular hills into the plain of Jebelce. *El Bekaa* (the *Καλή Συρία*, *Koile Syria* of the Greeks, *Cul Syria* of the Latins) is a beautiful valley between the two branches of Lebanon, drained by the river *Leitani*. It is about 90 miles in length, by 11 of average breadth, and is the richest and the most beautiful part of Syria. The *Valley of the Jordan* extends about 175 miles from the sources of the river to the southern extremity of the Dead Sea. From the Lake of Tabariah to Ain el Arus, 12 miles south of the Dead Sea, where it meets the Wadi-el-Arabah, it is called *El Ghor*. On the east side of the valley, between the two lakes, the mountains rise almost precipitously from the river, but on the west there is a narrow strip of level ground of singular fertility. To the north of the Dead Sea the country opens into the plain of Jericho, 18 miles in length by 7 in breadth, walled in by an amphitheatre of hills, which concentrate the rays of the sun, and make it very hot and parched. It produces, nevertheless, good crops of wheat, barley, and balm. The whole valley of the Jordan is considerably below the level of the Mediterranean Sea; but the exact amount of the depression has not yet been ascertained. The *Valleys of Galilee* are generally small, but beautifully wooded; and between Galilee and the ridge of Mount Carmel lies the great *Plain of Esdraelon*, extending south-east from the Bay of Acre, and watered by the river Kishon. It is called in Scripture the Valley of Jezreel or Megiddo; and is exceedingly fertile, and well adapted for growing corn; but it is uncultivated, and only affords a rich pasture to a few scattered herds. The *Plain of Haouran* lies to the south of Damascus, between Hermion and Gilead, and the *Jebel Haouran*. It is famous for its wheat, and contains many scattered hummocks, which are the sites of villages. All these hummocks, the round stones found in the fields, and the whole mountain of Haouran, consist of black basalt. The houses are entirely built of this stone, even to the doors, and present rather a sombre appearance. The plain is inhabited by Turks, Druses, and Arabs, and is also visited in spring and summer by Bedwins. The rocky wilderness called *El Ludja* and the *Jebel Haouran* comprehend all the uneven country which extends along the eastern side of the plain of Haouran, from near Damascus to Boszra, and is supposed to be the ancient *Trachonitis*. The plain of Haouran itself is the ancient *Auranitis*.

The great Syrian desert and its borders are not a bare wide waste of sand. Its surface consists generally of a fine black soil, covered in winter with a long rank grass and herbs, and peopled with antelopes, wild asses, and boars. In summer, however, the grass and the herbs are burnt up, and the inhabitants are then obliged to betake themselves to the borders of the cultivated country. In the interior, indeed, sandy tracts are met with, but even there a scanty herbage is to be found. Along the side of Syria are numerous ranges of hills which divide the country into small plains; but eastward from Palmyra, the desert presents a boundless level surface as far as the eye can reach. In summer the soil is parched and cracked into innumerable fissures by the heat, and the vegetation is destroyed; but no sooner do the winter rains commence than the herbage shoots up with astonishing luxuriance. In summer, the herds and flocks feed on the dry dead herbage, and are obliged to congregate near pools and wells; but in winter the Bedwins spread over the desert, and make long journeys, their flocks and herds no longer requiring water, as the plants then become juicy and full of sap. After the heavy rains, a species of vegetables somewhat like mushrooms springs up in immense quantities in different parts of the desert, some of which are celebrated for their abundant produce of this article. The Bedwins gather and eat them, after boiling them with butter-milk or melted butter; when they are esteemed a great delicacy. The Arabs of the desert belong to the great Aenezé tribe, and, during the former Turkish dominion of Syria, were quite independent; but under the Egyptian rule they were obliged to acknowledge the supremacy of the Pasha, and even to pay him tribute.

Syria has three distinct climates. The tops of Lebanon, which are for the most part covered with snow, diffuse a coolness over the interior, while the lowland sea-coasts are subjected to heat and moisture, and the eastern lowland adjoining Arabia are exposed to a dry and scorching heat. The seasons and the productions consequently vary. In the mountains the winter lasts from November to March, and is sharp and rigorous; no year passes without falls of snow, which often cover the ground, for months together, to the depth of several feet. The spring and autumn are agreeable, and the summer is not oppressive. In the plains, however, as soon as the sun has passed to the north of the equator, a sudden change takes place to overpowering heat, which continues till October; but to compensate this, the winter is so temperate, that orange-trees, dates, bananas, and other delicate fruits grow in the open field. A few hours are sufficient to produce the change from spring to winter. If natural advantages were duly seconded by art, we might, in a space of 50 miles, bring together, in Syria, the vegetable treasures of the most distant countries. Besides wheat, rye, barley, beans, and cotton, which are cultivated everywhere, there are several objects of utility or pleasure peculiar to different places. Palestine abounds in sesamum which affords oil, and in *dhourra* resembling that of Egypt. Maize thrives in the light soil of Baalbee, and rice is cultivated with success along the marshy borders of lake Houle. Sugar-canes have been introduced at Beyrout and Saïde; indigo grows without culture on the banks of the Jordan, and only needs a little care to make it of good quality. The hills of Latakia, and indeed all the mountains, produce tobacco. Olives grow at Antakia and Ramli to the height of the oak. The white mulberry thrives admirably on Lebanon and along the coast, and forms the wealth of the Druses, in consequence of the beautiful silk produced by its worms; and the vine raised on poles, or creeping on the ground, furnishes red and white wines equal to those of Bourdeaux. The clusters are remarkably large, and the grapes are often of the size of plums. Jaffa boasts of her lemons, Gama of dates and pomegranates, Tripoli of oranges, and Beyrout of figs, Aleppo is unequalled for pistachio nuts; and Damascus possesses every kind of European fruit; apples, plums, and peaches grow with equal facility on her rocky soil. Niebuhr was of opinion that the Arabian coffee shrub might be cultivated in Palestine. The mountains which diverge from Taurus in northern Syria are richly wooded; and large supplies of oak and yellow pine have recently been drawn from them for the use of the Egyptian navy. Cotton is also produced in considerable quantity in the same region, but, being raised from an annual plant, the crop is exposed to great vicissitudes. Syria possesses all kinds of domestic animals common in Europe, with the buffalo and the camel besides. The razzelles take the place of our deer; and instead of wolves there are jackals, hyenas, and ounces. But the ravages

of none of these animals are so mischievous as those of the locust. Unusually mild winters generate this insect in swarms in the Arabian deserts, from which, in bodies like clouds which darken the sky, it descends on the plains of Syria, consuming in its progress every particle of vegetation. The approach of these formidable swarms spreads general terror, and their visits are followed by certain famine. The only hope of the Syrian under this calamity is in a bird called *samar*, which devours the locusts, and in the south-east winds, which drive them into the Mediterranean. In the summer of 1836 an invasion of this insect took place, threatening destruction to every thing green in the province. To destroy them are they could take the wing was the only chance, and Ibrahim Pasha, it is said, set not only all his army to pursue them, but every village was called upon to send out parties against the common enemy. There is, however, a species of locust which furnishes a tolerable article of food for man.

Samaria is a hilly country, with intervening valleys, which produce abundance of wheat, silk, and olives.

Judea lies farther south, occupying the most southern part of Syria, between the Mediterranean and the Dead Sea. The ground rises from Jaffa towards the mountains of Judea, in four terraces. The sea-shore is lined with mastic trees, palms, and prickly pears; higher up are vines, olives, sycamores, and lemon trees, with groves of evergreen oaks, cypresses, andrachnæ, and turpentine trees. The ground is covered with rosemary, citisus, and hyacinths. Some remains are still to be found of the walls which the ancient inhabitants built to support the soil on the slopes of the hills; of the cisterns in which they collected rain water, and of the canals by which these waters were distributed over the fields. These labours necessarily produced a prodigious fertility under a burning sun, where a little water was the only requisite to keep the vegetable world alive. The flocks of the Arabs still find in it nutritious pasturage, and the wild bees hoard up in the holes of the rocks a fragrant honey, which is sometimes seen running down their faces. But the central hills of Judea and the country to the eastward are of a very different character, being dry and barren, and ending at last, along the Dead Sea, in a dreary desert, a wilderness of mountains, where both ancients and moderns tell us they have found nothing but stones, salt, sand, ashes, and a few thorny shrubs.

GULFS, BAYS, STRAITS.—In the Black Sea, the *Gulfs of Samsoun* and *Sinub* or *Sinope*; in the Sea of Marinora, the *Gulfs of Is-mid* and *Moudania*; in the Archipelago, the *Gulfs of Besiche* or *Besika*, near the entrance of the Dardanelles, *Adramyti*, *Sandarti*, *Smyrna*, *Vonra*, *Scula-nora*, *Azyn-kalesi*, *Cos*, *Smyr*; in the Mediterranean, the *Gulfs of Marmorici*, *Macri*, *Satalia* or *Adalia*, *Iskenderoon* or *Scanderoon*, and the *Bay of Acre*.

CAPIES.—*Batoun*, *Foudji*, *Konerehli*, *Zephira*, *Aio-Vasisti*, *Postepe*, *Vona*, *Jasoun*, *Therneh*, *Teherchenbich*, *Indjeh*, *Krenpe* (ancient *Carambis*), *Baba*, *Kirpeh*, and *Kara Boornou*, all on the north coast of Asia Minor. *Cape Janiary*, at the entrance of the Dardanelles; *Paba Eurun*, *Kara Burun*, and *Krio*, on the west coast; *Khelidonia*, *Anamour*, *Karadish*, on the south coast of the peninsula; *Khyzair*, *Eosul*, *Ras-el Shakan*, *Mount Carmel*, on the coast of Syria.

ISLANDS.—*Cyprus* (*Kypros* of the ancient Greeks, *Kypris* or *Kibris* of the moderns), situate towards the north-east corner of the Mediterranean, and one of the largest and most fertile islands in that sea: length, 140 miles; breadth, 63; superficial area, 3000 square miles. Formerly very flourishing, rich, and populous, it is now almost deserted, and full of ruined towns; but is still famed for excellent wine, cotton, and other products. It possesses great fertility, oranges, olives, raisins, figs, vines, and cotton, thrive amazingly, not excepting even the sugar-cane. The population is supposed to amount to about 60,000, of whom two-thirds are Greeks. **Towns.**—*Nicosia* (*Lefkosia* of the Turks), in the centre of the island, is situate in a fine plain, bounded by lofty mountains; population, about 4000 families. *Larnaka*, on the south coast, is the chief seat of commerce, and the residence of the European consuls. The ancient harbour is choked up; but the roadstead is good, and considerable traffic is carried on with Malta, Egypt, and Smyrna. *Famagosta* (the ancient *Arsinoe*, afterwards *Amnakhostus*), the capital of the island when in possession of the Venetians, stands on the east coast, and still exhibits many proofs of its former grandeur. *Laffo* (anc. *Laphos*), on the south-west coast, is now a mere village, but contained in former times the temples and groves of Aphrodite-Kypris (the Cyprian Venus), the goddess of Love and beauty. *Rhodos* (Rhodes), near the south-west coast of Asia Minor, 46 miles by 12, and containing 460 square miles, enjoys a delightful climate, the heats of summer being cooled by the lofty hills which occupy its centre. Rhodes was renowned in ancient times for the great wealth and civilization of its people, and for the wisdom of its laws, to which it owed its long independence. It acquired a new distinction in the middle ages, when it became the residence of the knights of St. John of Jerusalem. It is now almost deserted, but is still of some importance from the fortifications and ship-building yards of its chief town, in the north-east of the island, which bears the same name, and which appears to occupy very nearly the site of the ancient Rhodes, one of the most flourishing, commercial, and splendid of the Greek cities. The Rhodians were celebrated for their navigation, and for the enterprising spirit which led them to send colonies to many parts of the then known world; they possessed for some time the dominion of the sea, and their maritime laws form the basis of the modern maritime code of Europe. The city presents no traces of its former splendour; its only public buildings are two Gothic castles, and some massy Gothic churches, now converted into mosques. It contains a population of about 5000 Turks and 1000 Jews; but no Christian is allowed to reside within the walls. The rest of the island, however, is occupied almost entirely by Greeks, to the number of about 11,000. *Samos*, 50 miles south of Smyrna, and separated by a channel, only about a quarter of a mile wide, from the promontory of *Mycale*, is about 60 miles in circuit, and was famous for the worship and temple of Juno, who was said to have been born in the island. It is very fertile, rises abruptly from the sea to a great elevation, and its people were long famed for their industry; but they suffered very severely in the late war of independence, and the island is now mostly deserted and desolate. *Srio* (ancient Greek *Chios*, modern *Khio*), a beautiful and fertile island west of Smyrna, celebrated among the ancients for its wine (the *Chian*), and in latter times for its college, rich library, printing press, and numerous and industrious population, is now deserted, and covered with ruins. It was invaded by a host of Turks in 1822, the whole Greek population murdered or carried into slavery, and their property plundered or destroyed. Some barren islets or large rocks, named *Spalmadour*, so occupy the space between Scio and the mainland as to render the passage very dangerous in stormy weather. *Mythina* (*Lexos*), north-west of the Gulf of Smyrna, contains 435 square miles, with a population of 40,000, who are principally maintained by their trade in oil. It is also celebrated for oysters. *Taichan* and *Tenedos*, small rocky islands near the entrance of the Dardanelles. The latter produces a wine more esteemed than any other in the Archipelago. *Marmora*, famous for its marble quarries, *Kalimno*, *Rabi*, and the *Prince's Islands*, in the Sea of Marmora. *Kos* (*Isankhio* of the Turks), *Astypalaia*, *Nisiro*, *Pisopii*, *Sym*, *Klathki*, *St. John*, *Eskriti*, *Plaka*, *Adelphi*, *Stazida*, *Cazo*, *Scarpanto*, *Katimna*, *Levita*, *Ziouri*, *Lera*, *Palnos*, *Gutharo*, *Furni*, *Nikaria*, all off the south-west coast. *Grambouni* and *Khelidonia Isles*, off Cape Khelidonia, *Proconnesus*, south-west of Selerkeh. *Kefkon*, a small island to the east of Cape Kirpe, in the Black Sea.

RIVERS.—The *Jorukh* rises in Armenia, and flows into the Black Sea at Batum. The *Jek-E-Tenk* (green river), rises to the south-west of Tokat, flows through the eyalet of Sivas, passes Tokat, where

It is called Tokat-Su, Amasia, and Charsambeh, below which it falls into the Black Sea. The *Kizil-Irmak* (red river), formed of two branches, the one rising on the frontiers of Sivas, the other in the Hassan-dagh, flows first west, then north, and falls into the Black Sea, between Simub and Sansoun, after a course of 570 miles. It is the ancient *Halyk*, and the largest river of Asia Minor. The *Sakarius* (*Sangarius*) is formed of two branches, one from the neighbourhood of Angora, and the other from the Enir-dagh, joined by the *Purak* from Kutaya, and has a course of 250 miles into the Black Sea.

The *Kodos* or *Sarabak* (*Hermus*), rises in Murad-tagh, and falls into the Gulf of Smyrna, after a course of 190 miles. The *Mender* or *Meinder* (*Maender*), has a western course of 180 miles into the Archipelago south of Samos. It is celebrated for its windings, from which all similar windings on rivers have been called meanders.

The *Sihon* rises near Bostan, and flows south-west past Adana into the Mediterranean. The *Jihon* has a nearly parallel course, a little to the eastward, and falls into the Gulf of Scanderoon.

The *Aazi* or *El-Asi* (the rebel), the ancient *Orontes*, rises on the east side of Anti-Libanus, north of Damascus, flows north and north-west through a long valley to Antakia, where it turns south and south-west, and falls into the Mediterranean after a course of 225 miles. It is a rapid and troubled river, flowing near the foot of the Ausarian mountains, where it forms numerous marshes. To the north-east of Antakia the streams which descend from the valley of Taurus form a large lake, *Aggi* or *Orujia-denghis* (White sea), which empties itself by one stream, called the *Kara-su*, into the Orontes. The *Leitani* (*Leontes*) rises at the northern end of the valley El Bekaa, and flows south by west into the Mediterranean, a little to the north of Tyre. The *Jordan*, *Orden* or *Sherya*, rises in a small lake, called anciently *Phala*, in Mount Hermon, flows south into lake *Hoolya* (the Waters of Merom), and passes onward through the lake of *Tabariah* (*Sea of Galilee*), and then flows with a winding course through a spacious valley called El Ghor, and falls into the Dead Sea. In the higher part of its course, the Jordan, after it leaves lake Tabariah, flows between banks which are often picturesque; and in spring it fills its deep channel, moving along with great rapidity. The *Zerka* (*Jabbok*) flows from Jebel Haonran westward into the Jordan, nearly midway between the two lakes. The *Mandhour* flows also from Jebel Haouran to the Jordan, a few miles south of lake Tabariah. The *Kison* flows through the plain of Esdraelon into the south side of the bay of Acre. The *Kaje*, *Zerka*, *Kasab*, *Arsouf*, *Petrus*, *Roubin*, *Sorek*, *Bezor* or river of Gaza, all flow into the Mediterranean Sea.

The **EUPHRATES** is formed by the union of two large streams in Armenia. The *Murad* or southern, generally called the eastern branch, rises not far from Bayazid, in the mountains named Aladagh, flows first northerly, and then west and by south, about 300 miles, collecting in its progress the numerous streams which pour down from the mountains on both sides of the long narrow valley through which it flows. The northern or western branch rises about 20 miles to the N.E. of Erzurum, and passes westward within a few miles of that city, under the name of the *Frat* or *Karasu*. It then flows west by south through a succession of long narrow defiles, till it meet the Murad, about 7 miles above the lead-mines of Keban-maden. The united stream flows on in the direction of the Kara-su, and then makes a long circuit through the Taurus under the parallel of 38° N. lat. After clearing the mountains, the river forms a double cataract, 22 miles above Samosat, and flows for 100 miles in a direction a little to the south of west; then proceeds for another 100 miles nearly south, till it reaches the latitude of Haleb, when it turns to the south-east, and continues in that general direction to the head of the Persian Gulf; the whole length of its course being variously estimated between 1500 and 1700 miles. The general description of the Euphrates, for some distance below Bir, is that of a river of the first order, struggling through high hills, in an exceedingly winding course, as it endeavours to force its way over a rocky bed, from one natural barrier to another, the velocity of its current varying from rather more than two miles to four and a half per hour, according to the season and the nature of its bed. It is in this part of its course that it makes its nearest approach to the Mediterranean Sea, at the gulf of Scanderoon; the shortest straight line between them being about 100 miles, and the bed of the river at Bir being 628 feet above the level of the sea. Although the stream is in many parts quite uninterrupted by cataracts, it is frequently obstructed above Annah, and a little below that place, by a rocky bottom, and is shallow enough in some places for camels to pass in the autumn without burdens, the water rising to their bellies, or being four feet deep. The Euphrates is here enclosed between two parallel ranges of hills, and its banks are for the most part thickly covered with high brushwood, and timber of moderate size; the "eternal tamarisk," as the members of the late expedition call it, accompanying the river throughout its whole course. A succession of long narrow islands, either wooded or cultivated, is found in many parts, and on some of these are small towns; the borders of this ancient stream being still well inhabited, not only by Bedwins but by permanent residents. Fifty or sixty miles below Hillah the river enters a low tract, called the *Marshes of Lemhun*, where the navigable channel is very narrow, winding, and intricate. These marshes extend about 25 miles in a straight line, but 50 by the channel of the river, which here divides into innumerable small canals, leaving the main channel about 120 feet in breadth, and in some places not more than 35. From the marshes downwards there is a fine broad stream, for 190 miles, to Kornah, where the Euphrates and the Tigris meet, 1100 miles below Bir, by the course of the river. From Bir to the sea, the average inclination of the channel is 6.354 inches a mile; but this is much affected by rapids, as at Annah. Through all that distance it is everywhere navigable by boats of a particular construction, which draw little water. Though rudely built, they are numerous, and carry on much of the internal traffic of the country. Some years ago public attention in Britain having been directed to the Euphrates as a channel of communication with India, it was minutely surveyed by Captain Chesney, whose report being favourable, an expedition was sent out under his command, to try its practicability. Two iron steam-boats were built at Bir, and after many delays and dangers, the descent of the river was accomplished, but the disadvantages of the route have in consequence been found to be too numerous and too serious to be easily obviated, and all that has been gained by the attempt is the addition it has made to the knowledge of the geographer and the naturalist; though, as usual in such cases, there are people who still maintain the practicability of the route.

The **TIGRIS**, the companion and the rival of the Euphrates, has its principal source in the mountains of the country of Zoph, in Armenia, about 5000 feet above the level of the sea. A rising ground prevents it from proceeding to the Euphrates, while a deep ravine opens a passage for it towards Diyarbekr, whence it pursues its rapid course through a rugged territory with a great declivity, collecting the waters from the south side of the same range of mountains which send their northern streams to the Murad. Its extreme rapidity, in this part of its course, the natural effect of local circumstances, has procured for it the name of *Tigr* in the Median tongue, *Digit* in Arabic, and *Hid-dikel* in Hebrew, all of which denote the *flight of an arrow*. As the Tigris and the Euphrates approach each other, the intermediate land loses its elevation, and is occupied by meadows, marshes, and deserts. Above Baghdad, the rivers are only about 20 miles apart, but they afterwards separate to a distance of 110 miles, and finally meet at Kornah, about 134 miles from the sea. The Tigris is, generally speaking, a rapid river, and in this respect it has been contrasted with the Euphrates, which has been called a gently flowing stream. This comparison will apply to the rivers only in the upper parts of their course; for lower down they both flow onward for several hundred miles through the same plain, with more or less rapidity, according to circumstances. Below Baghdad the Tigris has a moderate current; but in its course from Mosul to that city, it passes over several ledges of rock; and

above the 32° N. lat., rushes through the hills of Hamrûn, where it has cut a channel only 150 yards wide. The rapidity of the stream of the Euphrates varies at different places; in the depression of the plain, it is often not a mile an hour; but over the dry ground it runs nearly three miles an hour; the upper Euphrates averages from three to four. The Tigris, in the plains, flows often less than one mile an hour, and averages one and a half throughout. At Mosul, in the time of flood, it averages not more than four miles an hour. (*Ainsworth's Researches, &c.*) Captain Mignan was much struck with the force and rapidity of the Euphrates at Hillah, from his having always heard it asserted that the Tigris flowed more swiftly. "At this point," he says, "the attribute (sluggish) is inapplicable; for at the time I am writing the stream is pursuing its course at the rate of three knots and a half an hour, whilst the Tigris flows at scarcely three. From the house in which I lodged (about two furlongs from the bridge of Hillah), I could distinctly hear the rushing of the water beneath the bridge, whereas it is never audible at Baghdad, not even to those who live on the brink, and opposite the floating bridge. Hence I conceive that the epithet 'sluggish,' when applied to the majestic Euphrates, is improper. In May 1828, I again crossed these rivers, and ascertained their respective velocity. The Euphrates flowed past Hillah at seven knots an hour, and the Tigris at five knots and a half," (at Baghdad we presume he means). — *Travels*, pp. 121—122. There has also been considerable discrepancy in the opinions of travellers, respecting the relative size of these rivers. The Euphrates has certainly the longest course, but it is more weakened by the supplies drawn off for irrigation; and at Hillah its width is only 120 feet, while that of the Tigris at Baghdad is more than 600. Both rivers overflow their banks in spring, when the snow melts on the mountains of Armenia; the Euphrates rises to the perpendicular height of 12 feet, the Tigris about 20 at Baghdad; and, when the fall of snow has been very great during the preceding winter, the country between and beyond the two rivers, in the lower part of their courses, becomes a vast lake,

The Tigris, during the whole year, contains a sufficient body of water for moderate-sized boats heavily laden, up to Baghdad; and, during the greater part of the year, as high as Mosul and Diyarbekr. The great and only difficulty navigators have to contend with, arises from the savage character of the people on its banks, who plunder every stranger that falls into their power, and not unfrequently murder them.

The only affluent of the Euphrates worthy of notice is the Khabour, a large stream which joins it at Kirkesiah from the north-east. The principal affluents of the Tigris are the *Great Zab*, the *Little Zab*, the *Toak*, the *Odorneh*, and the *Dijlah*, from Kurdistan; and the *Mendeli*, from the south-western declivities of the mountains of Louriſtan. The two great rivers are, however, connected by several canals, the principal of which is the *Shat-el-Hie* or *Hye*, which extends 160 miles from the Tigris at Kut Aamarah, 241 miles above Kornah, almost due south to the Euphrates, 90 miles above Kornah. It is dry in summer, but in winter it is about two fathoms deep, and was recently passed by a steam-vessel. Both rivers seem to have frequently changed their course through the alluvial plains.

The united stream of the Euphrates and Tigris is called the *Shat-el-Arab* (River of the Arabs), and flows with a somewhat winding course, in a direction nearly south-east from Kornah; entering the sea by a single channel called the *Khor-el-Bussrah*, over an extensive bar, which has only a depth of three fathoms at high-water, and a bottom of soft oozy mud. It is described as being everywhere broader than the Nile, and its waters much deeper, while the banks are more thickly covered with groves of date trees, and more on a level with the surface of the water, so as to be more easily irrigated than any part of Egypt, except during the inundation; but in other respects there is a striking contrast between these classic and noble rivers. Ships which can pass the bar may be easily navigated up to Bussrah. The tide ascends the Euphrates 60 miles, and the Tigris 35 miles above Kornah. Not far below Kornah the *Shat-el-Arab* is joined by the *Hawezra* or *Kerkah*, a large river from Louriſtan; and below Bussrah it communicates, by the *Hafar* canal, with the *Karoon* or *Kûran*, and as was supposed till Chesney's expedition proved the contrary, by the *Jerahi* also; the three rivers together forming seven mouths. The four eastern mouths belong to the Karoon and the Jerahi; the fifth, named *Khor-omeyah*, leads directly into the *Shat-el-Arab*, and is believed to be navigable by ships drawing 10 feet water; but being so close to the main body of the river, its passage is never attempted. The *Khor-el-Bussrah*, the principal entrance into the river, and the only stream now navigated by ships, has been already described; and the seventh, *Khor-Abdullah*, is supposed to have been once a mouth of the Euphrates, when that river reached the sea by a channel of its own, before it was united with the Tigris at Kornah. At present it is rather a creek or inlet of the sea, than the mouth of a river. It is said to be four times as broad from land to land at its entrance as the *Shat-el-Arab* is at the same point, and it continues to be twice as broad throughout its whole length; the depth of water in mid-channel, decreasing from ten fathoms at the entrance to five fathoms at the head.

LAKEA.—The great LAKE OF VAN, in Armenia, situate between 38° and 39° N. lat., and 42° and 44° E. long., extends nearly 80 miles in length from S.W. to N.E.; the eastern half has only a breadth of from 5 to 9 or 10 miles; in the middle it suddenly expands to a width of 37 miles, but contracts again at the west end to 15 or 16. It occupies the bottom of a valley, or, as M. Dubois calls it, a volcanic amphitheatre, surrounded with lofty mountains; its waters are bitter, except at the mouths of the rivers, where they are sweet enough to be drunk by cattle. A species of herring or sardinia is taken in abundance at some seasons, and is salted, and exported to all parts of Asia Minor. The beauty of this lake has been celebrated by almost every Armenian writer both in prose and verse. It contains two considerable islands, with Armenian convents, one of which bears the name of *Akhtamar*, which is also the Armenian name of the lake. The Turks call it *Arjish*. A few small vessels ply upon the lake; and a singular substance is found floating on its surface, which the people gather, and use in washing clothes. This is an alkaline salt, composed chiefly of carbonate of soda and chloride of sodium or sea salt. — (*Southgate*, II. 306.) The lake is 5,467 feet above the level of the sea.

The great *Tuzla*, or *Salt Lake of Koch-Hisar*, situate nearly in the centre of Asia Minor, is said to be 30 leagues in circumference; it is narrow, while its length extends nearly 50 miles. The water is so extremely salt that no fish or other aquatic animal can live in it; even birds are afraid to touch it, as their wings become instantly stiff with a thick coat of salt; and anything thrown into the lake is soon covered with that substance. The remains of a causeway formed across the lake are almost concealed under a case of salt, and the bed of the lake at some places consists of a thick crust of solid salt. The salt is a government monopoly, and is collected at only four places. — (*Hamilton, Journal R. Geog. Soc. Lond.* V. 111. 147.) The surface of the lake is 2,500 feet above the level of the sea. It is called by the people in the neighbourhood *Tuz-choli* (salt desert), because it is nearly dry in summer; but sometimes *Tuz-goli* (salt lake), *Agri-gol* (bitter lake), or *Koch-hisar-goli* (lake of Koch-hisar). — *Ainsworth's Journal, R. Geog. Soc. X.* 298.

THE DEAD SEA, called by the Arabs *Bahr Loul* (Lot's sea), and *Bahr Mutneh* (stinking sea), and by the Latin geographers, *Lacus Asphaltites* or *Mare Mortuum*, is situate in the southern part of Palestine, between 31° and 32° N. lat. and 35° and 36° E. long. Its dimensions have not yet been exactly ascertained; but it probably extends about 50 miles in length from N. to S., and from 7 to 20 in breadth. In July 1835 Mr. Costigan, an Irishman, with a Maltese sailor as his servant, spent eight days in making the tour of this lake in a boat, but was so worn out by his exertions, that he died before he could

give an account of his voyage. His servant, however, had observed the coast and some dings with the eye of a sailor, and told Mr. Stephens, who found him at Beyrout, that they had moved in a zigzag direction, crossing the lake several times; that every day they sounded frequently with a line of 175 brachia (each about 6 feet); that they found the bottom rocky and of very unequal depth, sometimes ranging 30, 40, 80, 20 brachia, all within a few boat's length; that sometimes the lead brought up sand, like that of the neighbouring mountains; that they failed but once to find the bottom, and in that place there were large bubbles all around for 30 paces, rising probably from a spring; that, in one place, they found on the bank a hot sulphureous spring; that in four different places they found ruins, and could clearly distinguish large hewn stones, which seemed to have been used for buildings; that at the south end of the lake a long tongue of high land projects into the water, and is composed of solid salt, which has at a distance the appearance of an island, the extremity being higher than the isthmus. In March 1837 it was again surveyed in a boat by Messrs. Moore and Beke, who found its depth in some places to exceed 300 fathoms; and, from several observations on the temperature of boiling water, and by the barometer, they estimated the level of its surface to be 500 feet below that of the ocean. Professor Schubert has estimated the depression, as indicated by the barometer, to be 598 or 600 feet; but M. Russeger has carried his estimate, also by barometer, to the enormous amount of 1400 feet. Its waters are intensely salt, and their taste is of the most nauseous kind, salt, bitter, and sulphureous, and so pungent that the eyes smart severely for some time after being dipped in them. It has been found to contain, in 100 parts, 0.920 of muriate of lime; 10.246 of magnesia; 13.360 of soda; and 0.054 of sulphate of lime. The south-western side of the lake is skirted by a long low ridge about 150 feet high, the whole mass of which consists of solid rock salt, covered with layers of soft limestone, marl, and other substances, through which the salt breaks out, and appears on the sides, in precipices 40 or 50 feet high, and several hundred feet long. Often also the salt is broken off in pieces which are strewn along the shore like stones, or accumulated at the foot of the precipices. The extreme saltiness of the lake is thus easily accounted for; the Arabs carry salt from the Dead Sea to all parts of Palestine for common use. The principal supply of water is derived from the river Jordan, which, even two or three miles above its mouth, is impregnated with the salt and bituminous matter of the lake; but, in the rainy season a great supply is also derived from the south; for, not only the waters of the valley El Arabah, but those also of the western desert, far to the south of Akaba, flow northwards to the Dead Sea. Nothing can be more dreary than the scenery round this lake; the soil is without vegetation, and furnishes food for neither bird nor beast. The water is extremely buoyant, and the air above it has a feeling of oppressive weight. Asphaltum or bituminous matter is found floating on its surface; but whether or not it contains fish seems not yet positively ascertained.—(*Stephen's Incidents of Travel*. New York, 1838, vol. II. ch. 14 and 15. *Journal R. Geog. Soc. Lond.* vol. IX. See also *anté*, page 631.)

The *Lake of Tabariah* or *Sea of Galilee*, is situate about 70 miles N. from the Dead Sea, in a basin surrounded by lofty but naked hills, about 328 feet below the level of the Mediterranean Sea, according to Lieutenant Symonds. It is about 16 miles in length by 9 in breadth, and is celebrated by all travellers for its grandeur and picturesque beauty. The water is of a greenish hue, and abounds with fish, some kinds of which are said to be found only in this lake and in the Nile; it is perfectly clear and sweet, though it receives several hot salt streams so impregnated with gases that they change the colour of the stones over which they pass. The Jordan flows through the middle of the lake with a strong and perceptible current. Long-continued storms are unknown, but the lake is occasionally subject to whirlwinds, squalls, and sudden gusts from the hollow of the mountains. There is no navigation upon it, nor even a fishing boat.

The *Aggi* or *Orjia-denghis* (White Sea) is formed by the streams which descend from the valleys of Taurus, to the north-east of Antioch, and empties itself by one stream, the Kara-su, into the Orontes. It is about 10 miles long, by 4 or 5 broad, and affords a navigable passage along its west side, to Murad-pasha on the upper Kara-su, and through the lower Kara-su and the Orontes to the sea. Besides these, there are in Syria, the *Bahr-el-Margi*, or Lake of the Meadow, which is the receptacle for the streams that water the plain of Damascus. In summer it is only a pestilential marsh, but in winter it becomes a considerable lake. The *Lake of Homs*, formed by the Orontes; and the *Shihuk* or *Salt Lake of Geboul*, to the south-east of Aleppo. In Asia Minor there are a great many other lakes; the principal of which are: The *Lakes of Is-nik*, *Abdulliont*, and *Maniyas*, on the south side of the Sea of Marmora; *Eyerdir*, a beautiful sheet of water about 30 miles in length, surrounded by lofty mountains, which are clothed with wood, and emitting at its south end a copious stream, which is said to fall into another very large lake, 35 or 40 miles in circumference, at the distance of four hours' journey; *Eber*, *Ak Shehr*, *Beg-Shehr* or *Kereli*, *Seydi-Shehr* or *Sughla*, the *Ak-Ghiul* (White lake), *Ocharak*, a salt lake, from which great quantities of salt are collected: all to the north of the Gulf of Adalia. *Gheuljik* (Little lake), 50 miles N.W. of Diyarbekr, between Kharput and Arghana-Maden, 12 miles long by 3 or 4 broad, and 4,453 feet above the level of the sea. The water is fresh, though usually said to be salt.—(*Brand, Journal R. Geog. Soc. Lond.* VI. 208.) It is also called *Geukcheh* (Sky-blue), and by Mr. Ainsworth, *Gorjik-Golt*.

PEOPLE.—The *Osmanlee* are the dominant race, being spread over all the empire, but are most numerous in Asia Minor, which they seem to consider as their proper country. (*See Turkey in Europe*.) Besides the Osmanlee there is a great number of other *Turks*; those in Armenia, and along the eastern frontier, take that name, which completely distinguishes them from their western brethren, who spurn it. Next to the Turks in number are the *Arabs*, who form the principal part of the population of Syria, and of the south-east provinces. (*See Arabia*.) The *Montefige* Arabs possess the country between Bussrah and Baghdad; their aggregate number is about 200,000, of whom 70,000 are fit for war. The *Annizah* and *Jerboa* are the other great Mesopotamian tribes. Among these tribes it has always been a part of the Turkish policy to foment a jealousy and maintain a balance of power, as otherwise they might, by confederating, drive them out of the country. The *Kurds* or *Koords*, the descendants of the ancient *Carduchii* or *Corduani*, inhabit and give their name to a region to the south-east of Armenia, extending about 300 miles in length, and half as much in breadth, and presenting an endless succession of hill and valleys, dells and plains of exhaustless fertility, and towering mountains. They speak the Persian language with a mixture of Arabic and Chaldaean terms, and are mostly Mahometans; but their religion is conjoined with various superstitions, which seem to be the remains of the ancient Magian faith. About a tenth part of them are Nestorian Christians, or Chaldeans, who inhabit the wild mountainous region to the south of the lake of Van, round *Julamerk*, their chief town. But whatever be their religious profession, they are a very uncivilized and lawless race; their country from time immemorial has been the scene of turbulence, robbery, and warfare; and they have seldom, if ever, been more than nominally subject to any of the great empires which have prevailed in this part of Asia. Kurdistan is at present nominally divided between Persia and Turkey, without being really subject to either. The Kurds are divided into numerous tribes, and also into two classes, the nobles or gentry, who spend their time in idleness or warfare, and the slaves, serfs, or peasants, who perform all the agricultural labour, and who appear to be of a different race from their haughty masters. Many Kurds are found beyond the limits of Kurdistan, scattered through Armenia, Asia Minor, and Northern Syria, where they lead a wandering pastoral life, like the Turcomans, and sometimes prove very troublesome neighbours to the inhabitants of the plains. Everywhere the name

of *Kurd* seems to be considered as nearly synonymous with robber. The *Tureomans* are, like the *Osmanlee*, a branch of the great *Türkee* family; but, like the *Kurds*, they lead a pastoral and unsettled life; they are, however, by far the most numerous and most civilized of the nomadic tribes of Asia Minor. They live in tents during summer, but have generally fixed villages for their winter quarters; they possess large herds of camels, buffaloes, goats, and sheep; they also breed horses, and sell them, with milk, butter, and meat, in the towns and villages, taking in return, arms, clothes, and money. Their women spin wool and make carpets. Each camp is under a chief, whose power is regulated by customs and circumstances, the abuse of which is restrained by public opinion. They pay so much a tent to the *pashas* for the privilege of pasturing over the unenclosed and uncultivated parts of the provinces. A large portion, also, of the Moslem population between Baghdad and Mosul, call themselves *Tureomans*, and speak the Turkish language. The *Yorukhs* are another nomadic people of Asia Minor, who live in tents all the year round, but almost exclusively in the mountains; and, when in the neighbourhood of towns, they generally act as charcoal burners, and supply the townspeople with that article. They also cultivate a little ground. The *Yezedees* are a singular race, who principally inhabit the mountain range of Sinjar in Mesopotamia, between the rivers Euphrates, Tigris, and Khabour; but are found also in great numbers in Kurdistan, and near Mosul, and a good many in the eyalet of Diyarbekr. There seems to be no doubt that they derive their origin and name from Yezid the son of the Caliph Moawiyah, who destroyed the race of Ali; although it is said by some that they are descended from a saint named Yezid, who lived about the same time (in the seventh century). Being detested by the Persians, on account of the destruction of the house of Ali by Yezid, and by the Arabs, as worshippers of the devil, they have been driven into the strong and isolated hills of Sinjar, and the rugged mountains and defiles of Kurdistan. Their religion (see *ante*, p. 124) is a strange mixture of worship of the devil with the doctrine of the Magians, Mahometans, and Christians; but religion, or religious ceremonies of any kind seem to be merely nominal among those of Sinjar, though those in Kurdistan practise various religious observances. Their manners and customs are very simple; their chief articles of food are barley bread, onions, figs, and grapes, either fresh or dried, according to the season; wheat bread is very rarely seen. No kind of wine or spirituous liquor is used by them. They are of the middle size, with clear complexions, regular features, black eyes and hair, thin, muscular, and well-proportioned limbs. Their character is rather superior to that of their neighbours. They are brave, hospitable, and sober, faithful to their promises, much attached to their native soil, but cruel and vindictive, considering their proper means of support to be robbery and theft. They differ from the surrounding tribes in not being polygamists; and all the tribes intermarry with each other. They used to keep the whole country between Mosul and Nisibin in a constant state of alarm; but in 1837 they were reduced to subjection by the pasha of Diyarbekr, and registered as tributaries of the Sultan.—(*Forbes; Visit to the Sinjar Hills in 1838, &c. Journal R. Geog. Soc. Lond.* IX. 409.)

The *Armenians*, one of the most ancient nations in the world, were the original possessors of Armenia, where, however, they now form only about a seventh part of the population, the rest of the inhabitants being chiefly Turks and Kurds. They call themselves in their own language *Haikuni*, and are distinguished by an elegant form and an animated physiognomy. Being constantly exposed to the wars waged by the great neighbouring potentates, they have been forced in a great measure to leave their country; and, though originally a brave and warlike people, they have now become distinguished for their peaceful character, and their willing submission to the government of every country in which they live. Devoted to commerce and manufactures, they have prospered wherever they have settled, finding their way to places inaccessible to Europeans; and their scattered colonies now extend from Hungary and Venice to Calcutta, and even to China; and from St. Petersburg and Moscow, to the deserts of Africa. In their own country, as well as elsewhere, they generally live in large families, in a state of happy unanimity, under the patriarchal rule of their oldest member; but this family attachment is found to be quite compatible with insensibility, injustice, and perfidy towards persons of a different race. Their religion is a branch of the Oriental Christian Church (see *ante*, p. 119). There are, besides all these races, a great many Greeks spread over the country, but chiefly in the western parts of Asia Minor, who are also found along the southern coasts, and in the towns of Syria and Palestine; preserving everywhere their national characteristics and religion.

Syria being successively invaded by the Persians, the Greeks, the Romans, the Saracens, the Latin Crusaders, and the Turks, presents a very mixed population. The aboriginal Syrians form but a very small proportion. Turks are found in the towns, and used to be the only civic functionaries. Many Arabs are settled throughout the country as cultivators, and many Bedwins are also to be met with. The total population of Syria is estimated at from 1,250,000 to 1,500,000, of whom two-thirds are Moslem, and the greater part of the remainder Christians. In the northern eyalet of Aleppo are hordes of *Tureomans* and *Kurds*; and the mountains between Aleppo and Damascus are occupied, in great part, by the single tribes *Ansarun*, *Druses*, *Maronites*, and *Motualis*. The *Ansarun*, called variously *Neceres*, *Noceres*, *Noçeres*, *Nassarun*, *Nassaris*, *Ensyrians*, *Anzeyrgs*, and *Ismaïlis*, occupy the mountains which extend from Antakia to the river Kébir, and are generally considered as a Mahometan sect, said to have been founded in the seventh century by one Nassar. But very little is in reality known about them or their religion; it appears, however, that they were established where they are now found, long before the Ottoman conquest; and all that can be said of their religion is, that it is a mixture of Mahometanism and idolatry. Their chief seat, and the residence of their emir, is *Masial*, or *Maszyad*, a castle, 40 miles N.E. of Tripoli. The *Druses*, about 150,000 in number, dwell among the hills and in the valleys of western Lebanon, as far south and east as the *Leitani* or *Quasmié* river. Their origin is uncertain, but they are, with some probability, believed to be the descendants of the ancient *Hurei*, a brave people, who possessed the same country in the times of the Romans, and, according to Niebuhr, the proper form of their name is *Durzi*, or *Turzi*, according to more modern authority, *Derze*, for *Duruz*. They are under the government of an emir, who resides at *Deir-el-Kamar*, House of the Moon, a town situate midway between Lebanon and the sea, about 12 miles E.N.E. of Saïde. Their religion is involved in mystery, though they are said to believe in one supreme being, who appeared for the last time incarnate in the person of Iakem, Khalif of Egypt, about A.D. 1039. This pretender to divinity was supported in his pretensions by a prophet, who came from Persia into Egypt; both the khalif and the priest perished by violence; but their doctrines survived, and their proselytes, persecuted as usual by the sect then in power, are said to have taken refuge in Lebanon. The *Druses* have found it their interest to tolerate differences of opinion in religious matters, and they have therefore united in a body, at different times, to oppose the crusaders, the sultans of Aleppo, the Mamelukes, and the Ottomans. After the Ottoman conquest of Syria, the *Druses* often descended from the mountains to harass the conquerors; but after the middle of the 16th century they became subject to the Porte, and, for the payment of yearly tribute, were allowed to maintain an almost undisturbed independence. They are in general fierce, restless, and enterprising, and their bravery even approaches to rashness. In time of extremity they can muster 20,000 men, horse and foot, armed with firelocks, the larger proportion being cavalry. The *Druses*, who compose two-thirds of this force, are a stout and well-made people, with a cheerful and rather reckless expression on their round faces, which are in general beardless, and rather fair. They wear their hair beneath the light Syrian turban, for in Lebanon neither the faith nor the customs of the Turks have ever been very fashionable. Some of them entertain very peculiar notions respecting religion; but as a body

they are said to be quite indifferent to it, following the Maronites or the Turks just as they find it convenient. On the mountain their emir is a Christian; when he visits the towns on the coast, he is a believer in the Prophet; he resides in a large and costly palace called *Beteddin*, close by Deir-el-Kamar. The Druse women wear tautooras, or horns, on the head, supporting a sort of veil, which gives them a very singular appearance. The Fellahs of the Ledja, south of Damascus, are also Druses; and to the east of Sanamein is a ridge of hills, called *Jebel ul Droos*, or the mountain of the Druses, the inhabitants of which are here governed by a prince of their own, independent of the emir beshir.

The Maronites occupy the hill country between Beyrout and Tripoli, called *Kesrawan*, *Kerrouan*, or, improperly, *Castraban*, and live in villages and hamlets round the convent of *Kannobin*, the seat of their patriarch. Being divided into various tribes, each cultivates his own little territory. They live peaceably and frugally in the bosom of their families, and beneath their humble roof the Christian traveller meets with a kind and hospitable welcome. The sound of bells and the pomp of processions attest the full liberty of conscience here enjoyed by the Christians. Two hundred monasteries rigorously adhere to the rules of St. Anthony, and numerous hermits have taken up their abodes in the grottoes and caverns of Lebanon. The Maronites derive their name from Maron, a saint of the fifth century, whose proselytes, having been stigmatised as heretics, sought refuge in the Kesrawan. After long braving the Saracen and the Turkish power, they were reduced at last by Sultan Murad III. in 1558, who penetrated into their country, compelled them to acknowledge his supremacy, and to pay a yearly tribute. In every other respect they remained uncontrolled. They have been received into the communion of the Roman church, which, however, according to its usual custom with heathen converts, still connives at their retaining some of their old opinions and practices, and particularly at the marriage of their priests. Their devotion, superstitious as it is, is fervent and steady, and throws an agreeable interest over their little territory, surrounded as it is by the darkness of Islam. Their numbers are about 150,000. The Maronites recognise no distinctions of rank, and have scarcely any form of government; the villages form so many little communities, and settle peacefully among themselves the disputes which elsewhere afford such a handle to governors to plunder and oppress their people. In personal quarrels, however, they exercise the barbaric right of vengeance, their religion having failed to impress upon them the most essential part of its morality, the forgiveness of injuries. They are all armed, and, when their strength is called out, can muster 35,000 men. Their monks cultivate the ground, and practise all the necessary handicraft trades. The priests are supported by the bounty of their flocks, which they are obliged to eke out by the cultivation of land, or the prosecution of a trade; even the bishops have only revenues equal to about £60 sterling a-year. But for this poverty the clergy are compensated by the great respect paid to them by the people, who kiss their hands whenever they meet them.

The *Moutoualis* or *Metualis*, are Shiabs, or heterodox Mussulmen, who worship the Khalif Ali and his descendants, while they curse Abubekr, Omar, and Othman. They formerly occupied the valley El-Bekaa, and sometimes rendered themselves very formidable to the Turks. They are supposed to be ancient Syrians, though, as a distinct sect, their name does not occur before the 18th century. Their name signifies *Sectaries of Ali*. The Moutoualis are now very much reduced, and are chiefly to be found in Eastern Lebanon, and among the Maronites. Their Emir resides at Baalbec; but the lower part of the valley is occupied by Turks.

The Arabic language predominates over the whole country; and the old Syrian tongue is spoken only in a few districts, chiefly in the neighbourhood of Damascus and Lebanon. The Arab and Turkish part of the people are Mussulmen. Of the Christian sects the most numerous are those of the Greek church; the Jacobites have also many adherents; and there are besides some European Christians, Armenians, Nestorians, and Jews. In fact, no country presents a greater assemblage of different creeds.

GOVERNMENT.—See TURKEY IN EUROPE.

PRODUCTIVE INDUSTRY.—Throughout the vast regions of Ottoman Asia agriculture is in the most wretched state, with the exception only of a few small districts, and the neighbourhood of the large towns. Manufacturing industry is a little more flourishing, particularly in the larger towns. It may even be said, that in dyeing cotton, silk, wool, and skins, the Turks surpass, or at least equal the most perfect European specimens of the same kind. But, generally speaking, there seems to be a complete stagnation of industry, enterprise, and energy. The principal arts and manufactures of Asiatic Turkey are: The silk stuffs of Aleppo, Damascus, Mardin, Baghdad, and Brusa; the cotton stuffs of Mosul, Damascus, Aleppo, Guzel-hisar, Diyarbekr, Smyrna, and Manissa; the cloth of Brusa, Tokat, Amasia, Trebizond, Rizah, Mardin, Baghdad, and Diyarbekr; the ordinary cloth of Khanak-kalesi, Guzel-hisar, and Hillah; the camlets and shawls of Angora; the carpets of Brusa, Kara-hisar, Pergamo, Aleppo, Damascus; the leather of Konieh, Kaisariyah, Kuskin, Diyarbekr, Orfa; the saddles of Aintab; the bridles of Uillah; the tobacco of Latakia; the opium of Kara-hisar; the stoneware of Khanak-kalesi and Hillah; the soaps of Damascus, Baghdad, and Aleppo; the cutlery of Damascus; the copper utensils of Tokat and Erzroum, and the glass of Mardin and Hebron.

COMMERCE.—Few countries in the world are better adapted than Ottoman Asia for being the centre of an immense commerce. Accordingly, from the highest antiquity, and during all the middle ages, this country was the seat of the greatest commerce in the world; but from want of safety to traders, of great roads, of navigable canals, and encouragement on the part of the government, its present commerce is scarcely the shadow of what it was in former times. The central position, nevertheless, of these fine provinces between Europe, Asia, and Africa, the rich productions of their soil, the numerous products of the industry of some of their great towns, and the caravans of Damascus and Baghdad which convoy to Mecca the pilgrims of Europe and Eastern Asia, contribute still to give great activity to their commercial relations. The internal commerce, which is the most considerable, is carried on by caravans, as in other parts of Asia. Erzroum, Kara-hisar, Tokat, Angora, Brusa, Smyrna, Bussrah, Baghdad, Diyarbekr, Aleppo, Mosul, and Damascus, are the principal resort of the caravans from Persia, Arabia, and Europe. The maritime commerce is carried on almost entirely by Europeans except only at Bussrah; the English, the French, the Dutch, the Russians, and the Austrians, have the greatest share of it. Smyrna, Latakia, Tripoli, Acre, and Beyrout, are the principal places in the Levant; Trebizond is the principal mart on the Black Sea. The Armenians, and next to them the Jews and the Greeks, are, of the native population, most given to commerce. The principal articles of export are: silk, cotton, wool, leather, tobacco, copper, camels'-hair, goats'-hair, opium, saffron, gall-nuts, turpentine, storax, raisins, figs, and other dried fruits, the wine of Cyprus, skins, turkey-leather, and other articles of native manufacture, and several manufactured articles which are imported from India, Persia, and Arabia. The principal articles of import are: silk-stuffs, cloths, needles, watches, and other hardwares, mirrors, and other glass-ware from Bohemia and Venice, paper, tin, Nuremberg wares, porcelain, colonial produce, and many other articles. Arabia, Persia, and India, furnish a great part of the precious products of their soil, and the last country sends the produce of its numerous handicrafts. (See TURKEY IN EUROPE.)

DIVISIONS.—For administrative purposes, Asiatic Turkey is divided into 20 governments called *eyalets*, which are subdivided into departments, or shires called *Sanjaks* and *livas*: some of the lat-

ter, however, being independent of the pasha, or governor of the eyalet within which they are geographically situate. Both classes of divisions are very unequal in respect of extent and population. Many wandering and mountain tribes, and, indeed, large tracts of country are only tributary; some are merely vassals, and others quite independent. The following table of these divisions is given by Balbi in his *Abrégé*, as the nearest approach he could make, with the assistance of M. Jöüannin, to the true administrative divisions of Ottoman Asia.

*Eyalets.**Chief Towns and Remarkable Places.*

L.—ASIA-MINOR, OR ANADOLI.

- ANADOLI. . . *Kutahya*, Is-nikmid or Is-mid, Brusa or Prusa, Moudania, Kidonia or Halvall, Pergamo, Sart, Smyrna, Guzel-hisar, Allah-Shehr, Ayasalouk, Antalia or Adalia, Ak-hisar, Kara-hisar, Angora, Kanghri, Kastemuni, Sinub, Boli, Bartine or Bartan, with several tribes of vassal Turcomans.
- ADANA. . . . *Adana*, Tarsous, Sis, Baïas, Anemour, Selcfkeh, Alaue or Alaia, and several Tureomans.
- CARAMANIA. . . *Konieh*, Laranda or Karaman, Ak-shehr, Ak-serai, Nikde, Gourouk, Maden, Kirshehr, Kaisariyah, Ladik.
- MARASH. . . . *Marash*, Bostan, Aintab, Malatiah, several tribes of Turcomans and Kurds.
- SIVAS. . . . *Sivas*, Tokat, Yuzgat or Ouscat, Amasia, Merzifoun, Chorun, Vizier-pasha, Unieh.
- TREBIZOND. . . *Trebizond* or *Trapesun* or *Tarabozun*, Kerasun; Lazistan, the country of the Lazis, and independent tribes, lies along the coast east of Trebizond.

II.—ARMENIA, WITH PART OF KURDISTAN AND GEORGIA.

- ERZROUM. . . *Erzroum*, Kamakh, Maden, Erzingan, Kara-hisar, Gumushkhaneh, Baibout, Toprak-kalah.
- KARS. . . . *Kars*, Ani, Ardanuji.
- VAN. . . . *Van*, Mûsh, Betlis, Khoshab, Bayazid.
- SHEHRZUR OR OTTOMAN KURDISTAN.—*Kerkuk*, Shehrzur, Erbil, Baian, Suleimaniyah.

III.—MESOPOTAMIA OR ALJEZIRA, WITH ARABIAN IRAK.

- BAGHDAD. . . *Baghdad*, Meshed-Ali, Hillah, Meshed-Husscin, Anna, Nisibin, Mardin, Bussrah, Kornah.
- DIVAREBEK. . . *Diwarbekr* or *Kara-Amid*, Maden, Siverek.
- RAKKA. . . . *Rakka*, Orfah, Bir, Tor, Khabour.
- MOSUL. . . . *Mosul*, Elkosh.

IV.—SYRIA OR ELSHAM.

- ALEPPO. . . . *Haleb* or *Aleppo*, Killis, Alexandretta or Scanderoon, Beilan, Antakia or Antioch, Shogr or Jesr-shogr.
- DAMASCUS. . . *Damascus*, Hamah, Homs, Tadmor or Palmyra, Jerusalem, Bethlehem, El Khalil or Hebron, Rayah or Jericho, Nablous or Sichein, Gaza, Ramlah, Jaffa.
- ACRE. . . . *Acre* or *Akka*, Beyrout, Sidon or Saïde, Sour or Tyre, Nazareth or Nazra, Tabbariah.
- TRIPOLI. . . *Tripoli* or *Tarabolous*, Latakia.

Cities and Towns in Asia Minor and Armenia.

SMYRNA (*Iemir* of the Turks) lat. 38° 29' N., long. 27° 11' E., is situate at the bottom or eastern extremity of the gulf of the same name, and is built in the form of an amphitheatre, on the slope of a hill, the top of which is crowned with a ruinous castle. Without being beautiful, Smyrna presents an agreeable appearance, and contains some well-built houses, which belong chiefly to the Franks, and form a pretty quarter of the town. The streets are narrow and dirty, with the exception of those which are covered. To its position Smyrna owes the rank which it holds among the most important trading places in the world. The extent and safety of its road for shipping, and the facility of its communications with the interior, have made it the general emporium of the Levant. The trade in dry fruit is immense. Smyrna now forms a small eyalet, governed by a pasha of three tails, and has a population of about 130,000, of whom 10,000 are Jews of Spanish origin. The Frank quarter is inhabited principally by the English, French, Dutch, and Italian merchants, with their families and servants, whose persons and property are exempt from Turkish rule; and in civil, commercial, or criminal matters, they recognise no other judges than their own consuls. In the magnificent casino, which was built by subscription, are found all the principal periodical publications of Europe, and in the theatre an amateur company plays Italian comedies. There is also a Greek college; and a gazette is published in French. The summer heat is very great; the thermometer in July, in a cool room with the shutters closed, varies from 78° to 83°, and in the shade out of doors, from 84° to 94°; but the heat is generally tempered by a fine westerly breeze called the *inbat*, which continues from mid-day till sunset. Occasionally, however, hot winds blow from the south and burn up the country. In the immediate neighbourhood are the pretty village of *Bournabat*, where most of the Franks have their country houses, and the villages of *Bouja* and *Sedi-Keui*, remarkable for their fine plains and numerous population.

Manisa (*Magnisia*), 25 miles N. E. of Smyrna, is a large town, with a flourishing trade and extensive plantations of saffron. It also contains a ruined fortress, and the tombs of Sultan Murad II. and his family. Population 100,000. *Fukia*, 25 miles N. W. from Smyrna, a flourishing town with a good harbour, built on the site of the ancient *Phocæa*, so renowned for its colonies in Spain and Gaul, among which the most distinguished was Massilia (Marseilles). *Tourla*, a small town, 20 miles W. by S. of Smyrna, built near the site of the ancient *Clazomenæ*, still contains traces of the mound formed by Alexander the Great. *Chesmech*, *Chisme* or *Tchesme*, 40 miles W. by S. of Smyrna, a small town situate on a bay, where the Turkish fleet was destroyed by the Russians in 1770. *Ayasalouk*, (Moon-town) 40 miles S. by E. of Smyrna, a miserable Turkish village, represents the ancient *Ephesus*, the remains of which are at a little distance, and consist of shapeless ruins and stone walls. The harbour is now only a pestilential marsh. *Scala-nova*, 45 miles S. by E. of Smyrna, a flourishing commercial town with a harbour, contained, before the Greek revolution, 20,000 inhabitants. *Palatia*, near the mouth of the Meander, a wretched assemblage of huts, appears to represent *Miletus*, one of the most flourishing commercial cities of antiquity. The ruins of its vast theatre are still to be seen. It is situated upon a braekish lake, connected with the Meander by a channel two miles long. *Guzel-hisar* (*Tralles*), 64 miles S. E. by S. of Smyrna, is a flourishing trading town, with cotton manufactures, and 30,000 inhabitants. *Tirch* or *Tirra*, 47 miles S. E. of Smyrna, a modern town, is nearly as large as Smyrna, though less populous. *Cassaba* or *Durgutli*, 35 miles E. of Smyrna, is a large town, with about 6000 houses. *Sart* (*Sardes*), 50 miles E., is a miserable village inhabited by a few Turks, on the

site of the splendid capital of the Lydian kings. The principal ruins consist of those of the great church, the temple of Cybele, and the tomb of Alyattes, the father of Cræsus, which consists of a conical hill of earth 200 feet high and 4000 round the base. Similar monuments of smaller size are found at a little distance. *Ak-hisar* (ancient *Thyatira*), 60 miles N.E. of Smyrna, is a town of 1740 houses, situate in a fertile plain, and surrounded by groves of delicious gardens. *Allah-Shehr* or *Alu-Shehr* (ancient *Philadelphia*), 85 miles E. of Smyrna, is said to contain more than a dozen of Christian churches, and the bulk of its population is Christian. *Pergamo* or *Bergma*, 48 miles N., is a large and still flourishing town in the valley of the *Cicus* (*Grimakli*), although only the shadow of the ancient residence of the kings of Pergamus. Its magnificent temple of *Æsculapius*, its celebrated library, inferior only to that of Alexandria, and the invention of parchment (*charta pergumena*), give a distinguished place in history to this ancient city. *Hatirali*, named *Kidonia* by the Greeks, on the gulf of *Adramyti*, founded towards the end of the 18th century, became in a short time one of the most industrious, commercial, and polished cities of Asia Minor. It possessed numerous manufactories, a fine college, a library, a printing press, beautiful churches, 3000 houses, and 36,000 inhabitants, all of which disappeared in the late war between the Greeks and the Turks. Since 1821 *Kidonia* has been only a heap of ruins.

BRUSA, or **PRUSA**, lat. $40^{\circ} 9' 30''$, long. $29^{\circ} 4' 45''$, 63 miles in a straight line S. by E. of Constantinople, is situate in a fine plain 20 miles in length, behind which, to the south, rise the snowy tops of Olympus. The ordinary houses are of wood, the streets very narrow but clean and well-paved, and altogether it is a very fine city. It is overlooked by an old castle situate on a rocky and picturesque eminence, and is surrounded by extensive suburbs. The most remarkable buildings are the *Ouloujami*, or principal mosque, a large building, which dates from the Ottoman conquest of the city; the mosques of the Sultan Orkhan, with his tomb, and a well-frequented college; and those of the Sultans Othman, Murad, and Bayazid. The city contains also a number of fine khans, built with stone, magnificent baths, and beautiful fountains. Formerly the capital of the kings of Bithynia, it was afterwards the capital of the Ottoman empire till the taking of Adrianople. Population 100,000. The adjoining plain is covered for miles with mulberry trees, which supply abundant food for the silk-worms that furnish the staple produce of the place. The adjoining mountains abound in the finest pasturage, timber, underwood for fuel, and springs of the purest water, which is profusely supplied to every part of the city. From the foot of Olympus there issue mineral waters, with a strong sulphureous odour, and of the emperature of 167° to 190° Fahrenheit, which are conducted into baths for the use of the citizens.

Moudania, 17 miles N.W. of Brusa, a town on the gulf to which it gives its name, serves as the port of Brusa. *Is-nik* or *Sneek*, a wretched pile of huts, which stand upon the site of *Nicaea*, the ancient metropolis of Bithynia, is celebrated for the first general council held there by the Christians in A.D. 325. Its thick walls, its towers, and gates are still in good preservation; 37 miles N.E. *Is-nikmid* or *Is-mid*, 62 miles N.E., the ancient *Nicomedia*, an early residence of the kings of Bithynia, was made the capital of the Roman empire by Diocletian. No vestiges of its former magnificence remain. It contains about 700 families, and has the appearance of a modern town. *Aboulont* (*Apollonia*), situate on an islet in the lake to which it gives its name, contains 2000 inhabitants, who are chiefly fishermen, and live almost entirely upon the produce of the rich fishery of the lake, which is of considerable size; 20 miles W. of Brusa. *Mikhalch*, a large straggling town of 1500 houses, 36 miles W. of Brusa. The south coast of the Sea of Marmora is overspread with celebrated ruins, among which the principal are those of *Cyzicus* (now *Balkis*), one of the finest and most flourishing cities of Asia. Its remains are still to be seen not far from *Peramo*, a miserable village on the east side of the Peninsula, formerly the island of *Cyzicus*. *Poungar-bashi* or *Bournar-bashi*, south-east from the Dardanelles, a village supposed to occupy, or at least to be near to, the site of the ancient *Troja* or *Ilium*. There are no remains of the city, but on a neighbouring rock believed to be *Pergamus* (the citadel), are the ruins of buildings in irregular polygons, a cistern cut in the rock, and three heroic tombs, or barrows. Some marble pillars and other remains at *Chiblack* point out the site of *New Ilium*, built by Alexander the Great, ruined by Syria, and rebuilt by Julius Cæsar. *Shemil*, another village with antiquities, marks the site of *Alexandria-Troas*, a city entirely ruined and deserted, but whose ruins still attest its ancient magnificence.

KUTAHYA (*Cotyæum*), 180 miles E.N.E. of Smyrna, 80 S.E. of Brusa, a large town, built in a picturesque situation, on the slope of Mount Pursak, and watered by the river Pursak, is considered the capital of Anadoli. Among its buildings the only one remarkable is an old mosque of singular architecture. Population 50,000. In the immediate neighbourhood is *Tunshali*, a place with famous warm baths. *Sidi-Gazi*, 30 miles E. by S. of Kutahya, a ruined village, is remarkable for its fine mosque, and still more for a Phrygian monument in its neighbourhood, visited by Colonel Leake, who, inferring from the words "To King Midas" cut upon its side, believes this tomb cut in the rock and covered with sculptures like those of Mycene, may be attributed to one of the Phrygian kings of the dynasty of Midas. If this be the case, it must have been formed between 570 and 740 years B.C. *Esc-shehr*, a small town 30 miles N.E., the ancient *Doryleum*, and important for its warm baths. *Turbot*, a small village, where the road begins to ascend the *Domatan-tagh*, a high mountain upon which there has been long established an hospice like that of the Great St. Bernard, to assist travellers wandering in the snow; for which purpose large dogs are kept. *Azani*, a wretched village 70 miles S.E. of Brusa, deserves attention on account of its magnificent ruins of a great Hellenic city, and of a temple of Jupiter, which is said to be equal to the most remarkable Greek buildings yet remaining. *Kara-hisar* called also *Afoun-kara-hisar* (Opium Black Castle), 54 miles S.S.E. of Kutahya, so called from the immense quantity of opium (*afium*) which is collected in its neighbourhood, and to which, as well as to its woollen manufactures, it owes its flourishing condition. Population about 60,000.

KONIEH (*Iconium*), lat. $37^{\circ} 56'$, long. $32^{\circ} 45'$, 300 miles E. by S. of Smyrna, is a large town, in a rich and well-watered plain. Among its numerous mosques is remarked that of Selim, built on the model of Saint Sophia. Here is also the convent of the Mewleviys, founded by Jelaeddin Rumi in the 13th century, and the chief of all the establishments of the same kind in the empire. Konieh still possesses considerable trade and manufactures, and numerous medreses or colleges. The great flat plain to the east is dry in summer, but is flooded and impassable in winter. Population about 30,000. *Lazik-yehi-karaman* or *Yuragan Ladik* (ancient *Laodicea*), is a small town 25 miles N. by W. of Konieh. *Karaman* or *Laranda*, 60 miles S.S.E. of Konieh, a large commercial town, near the ruins of *Laranda*, which have supplied materials for its buildings. *Al-shehr* (White Castle), 72 miles W.N.W., a flourishing city, is the see of an archbishop, with 15,000 houses. The medrese or college of Bayazid, and the principal mosque, are remarkable buildings. *Eregli* (*Heraclea*), a small town, 85 miles E. by S. of Konieh, near a large swampy lake, which appears to be a continuation of that of Konieh, and emits its waters through a tunnel, in the limestone ridge which bounds the plain to the south.

TOKAT (Armenian *Etlogia*, Greek *Eudokia*), lat. $39^{\circ} 53'$, long. $36^{\circ} 50'$, on a branch of the Kizil-Irmak, is a large town, with narrow but well-paved streets. It stands at the mouth of a long, steep, narrow, rocky defile, which widens a little on approaching the city, on the bank of a small stream, but so surrounded on three sides by lofty mountains, that the heat concentrated in the narrow valley sometimes becomes intolerable. The valley for about three miles above the town is filled with gardens and vineyards, and a number of rills of water run through it. The town is not esteemed healthy, autumnal fevers being very prevalent. Population about 30,000. As a commercial mart the import

tance of Tokat has passed away. *Kaisariyah*, 160 miles E.N.E. from *Konktr*, the ancient *Vazaca*, capital of Cappadocia, afterwards called *Cesarea*, in honour of the Emperor Tiberius, is situate at the foot of the mighty and constantly snow-capt Mount *Arjish*, 4200 feet above the level of the sea. It is surrounded by a wall quite dilapidated, and has a castle within on the same level as the city; but neither of them could offer any resistance to cannon. It contains 8000 houses, 5000 Turkish, 2500 Armenian, and 500 Greek. The villages in the neighbourhood are large and populous, and the Christian inhabitants here display their riches and luxury in their country houses more than in any other part of Turkey. *Kaisariyah* is the principal commercial mart in the central part of Asia Minor; the inhabitants are remarkable for their activity and enterprise, and the natives are found assiduously following their pursuits in the remotest corners of the empire. The climate is warm in summer, and not severe in winter, and still it is not reckoned very healthy. The products of a warm climate, as melons, figs, pomegranates, and grapes are yielded; but the plain is neither fertile nor well cultivated, except merely around the town. The bottom of the mountain is covered with gardens, which produce fruits, and the yellow berry used in dyeing, for which *Kaisariyah* is so celebrated. The ruins of a more ancient town, destroyed by an earthquake, are close by. *Yuzgat*, 96 miles N. by W. from *Kaisariyah*, grew into importance under the fostering care of the *Chapwaan Oglu* family, who fixed their residence here; and from an insignificant village it became a considerable and flourishing town. It is a neat, clean, walled town, situate in a narrow valley, overlooked on all sides by rising grounds. N.W. from *Yuzgat* about 20 miles, is *Boghas-keui*, a village, near which are the remains of an ancient town, supposed to be *Tatium*.

South-east of Tokat lies the extensive eyalet or pashalic of *Sivas*, the capital of which is *Sivas*, the ancient *Sebaste* (so called in honour of the Roman Emperor Augustus, whose Latin title *Augustus*, the Greeks rendered in their own tongue *Sebastos*), 50 miles S. by E. of Tokat, situate in a plain, from 4 to 6 miles in breadth by 16 or 20 in length, watered by the *Kizil-Irmak*, and noted for grain of superior quality. The climate is severe, though remarkably healthy. The town covers a large area, within which are many ruins. It contains about 5000 Turkish, and 1200 Armenian families; and its position is very favourable for an important commercial city. The access from the Black Sea is easy, and has been facilitated by a military road. The city is situate in the centre of a district abounding in the first necessities of life, and of a country which would require extensive supplies. The route by *Sivas* is the best to reach *Malatiah*, *Kharput*, and *Diyaarbekr*. The bazaars are extensive, and the khans numerous, and both are well supplied with goods. *Egin*, situate in a deep valley on the right bank of the *Kara-su*, or Western Euphrates, about 115 miles E. by S. of *Sivas*, contains 2700 houses, of which 2000 are occupied by Mahometans, the rest by Armenians; among whom the goitre is a frequent disease. *Arab-gir*, 30 miles first S. then S.W. from *Egin*, 15 caravan days (about 270 miles) from Aleppo, and only 11 (198 miles) from Trebizond. The town is situate in the midst of a forest of fruit trees, and contains about 6000 houses, of which 4800 belong to Mahometans, and 1200 to Armenians. The latter are principally engaged in manufacturing cotton goods from British yarn, and there are about 1000 looms at work. The place is, in consequence, in a thriving condition, and is one of the most interesting towns in the interior as regards Trebizond. The climate is severe, and much snow falls in winter; but the summers are cool. *Keban-Maden*, 20 miles S. from *Arab-gir*, is situate in a ravine, near the Euphrates, in the neighbourhood of an argentiferous lead-mine, in which the greater part of its inhabitants, 400 or 500 families, are engaged. The mine produces annually about 1000 pounds of silver, and 195,000 pounds of lead. *Kharput*, 30 miles S.E. of *Keban-Maden*, is situate on an eminence at the termination of a range of mountains, overlooking an extensive, beautiful, and productive plain, and contains 1720 families. *Malatiah*, 105 miles S.E. of *Sivas*, with *Aspusi*, 6 miles distant S.W. among the hills, may be considered as one town, containing 8923 families, who used to spend the seven summer months at *Aspusi*, and the five winter months at *Malatiah*; but now confine themselves chiefly to the former, while *Malatiah* is, in consequence, nearly deserted.

TREBIZOND (*Traperus*), lat. $41^{\circ} 1'$, long. $39^{\circ} 40' E.$, on the southern coast of the Black Sea, has been a place of importance since its foundation by the Greeks in ages beyond the reach of authentic records. The town is built on the slope of a hill facing the sea, part of it being surrounded by a castellated and lofty wall, and is in the shape of a parallelogram (*trapezoid*), whence it derives its name. On each side of the walled portion of the city is a deep ravine, filled with trees and gardens, and both ravines are crossed by long bridges. Overlooking the city is a citadel, which is rather dilapidated and neglected, and is commanded by neighbouring heights. There is no harbour for ships; but a small open bay at the east end of the town is used as an anchorage during the summer. After the autumnal equinox the Turkish and European vessels resort to *Platana*, an open roadstead 7 miles W. of Trebizond; but British vessels anchor at all seasons at Trebizond, and the anchorage there, even in winter, appears to be quite as secure as that of *Platana*. The city contains between 25,000 and 35,000 inhabitants, of whom between 3500 and 4000 are Greeks, from 1500 to 2000 Armenians, and the remainder Mahometans. Its present importance depends almost solely on its being the most convenient port of debarkation for merchandise destined for Armenia and Persia. *Kara-hisar*, 85 miles S.W. of Trebizond, contains 2500 houses, and has a considerable trade with the coast and the interior. *Kerasus* (anc. *Cerasus*), is the port on the Black Sea with which its communications are most active, and is distant about 60 miles N. by W. The town is built around an old castle on the top of the isolated hill. Near the town are extensive mines of rock alum, from which it takes the distinctive appellation of *Shebh-khaneh* (alum-office, or alum works.) *Niksar*, the ancient *Neo-Cesarea*, 70 miles W. of *Kara-hisar*, is situate amidst a forest of fruit trees, on the east side of a very extensive and remarkably rich plain, watered by the *Char-Shaumbah*. *Gumish-Khaneh* (place of silver), on the river *Kharshut*, 40 miles S. by W. of Trebizond, a town which has grown up amidst the mines of argentiferous lead in the neighbourhood. These mines were once rich in silver, but the produce is now very small, and the people are, in consequence, reduced to great poverty. The whole district abounds in ores of copper and lead; but few mines are worked, and those which are in operation produce little from the ruinous system of management pursued. *Treboli*, a town, with copper mines, at the mouth of the *Kharshut*, 50 miles W. of Trebizond. *Sarmentah*, *Rizah*, *Atenah*, *Khopah*, are places on the coast east of Trebizond, each consisting only of a street of shops, with one or more coffee-houses, and a khan or two. The inhabitants live in cottages scattered singly over the country. *Rizah* is an important and fertile district, with the most extensive bazaar on the coast, and is famous for the manufacture of a cloth, Mr. Brant calls it *linen*, made of hemp, and used throughout Turkey for shirts. *Unik* (*Enoc*), 130 miles W. from Trebizond, on the coast, a dirty town, built of wood, but occupying a most beautiful situation, and carrying on a thriving trade in cotton-stuffs, fruit, and wine.

Amasia, the ancient metropolis of Pontus, the birth-place of Mithridates, and of Strabo the geographer, stands on the west bank of the *Jekil-Irmak*, at its confluence with the *Chekr*, 60 miles from the sea. *Chorum*, 40 miles W. of *Amasia*, is a large town, situate in the midst of an extensive plain, through which a small stream flows southward to the *Jekil-Irmak*. It is inhabited by bigoted Mussulmans; there is scarcely a Greek or Armenian in the town, and, owing perhaps to its isolated position, a Frank was never seen in it before it was visited by Mr. W. T. Hamilton in October 1836. *Murshivan* or *Merzifoun*, 30 miles W.N.W. from *Amasia*, is a town of 4000 houses, according to M. Fontanier, and possesses rich copper mines. *Samsouca* (*Amisus*), on the coast, midway between the *Kizil-Irmak* and the *Jekil-Irmak*. Population about 2000. *Sinuh* (*Sinope*), a very ancient Milesian colony, and afterwards capital of the kingdom of Pontus, still contains about 5000 inhabitants, and

carries on an export trade in rice, fruit, and hides. *Kostamuni*, 70 miles S.W. by W. of Sinub, called also *Kostamboul*, is a large Turkish town with 42,000 inhabitants, and a great trade in wool, which is said to be as good as that of Angora. *Boli* or *Zafaran Boli*, 150 miles E. by S. of Constantinople, is a large town with 15,000 inhabitants, and flourishing manufactures of leather and cotton stuffs. *Angora* or *Enguri* (anc. *Amura*), 80 miles S.E. of Boli, and 2750 feet above the level of the sea, is a large town with 50,000 inhabitants, celebrated for its silky-haired goats, cats, rabbits, and dogs; and for the carpets made from the goat-wool. The quantity of wool annually exported amounts, it is said, to 1,250,000 lbs.; but of this less than a half is of the more valuable fleece.—(*Ainsworth, Jour. R. Geog. Soc.*, IX. 275.) Among other antiquities, Angora contains the remains of the *Augustæum*, or temple of Augustus Cæsar, with an account of his life inscribed on the portal. In A.D. 1402, a great battle was fought near Angora, between Bayazid-İlderim, the Ottoman Sultan, and Tamerlane, or Tīmūr the Tartar. *Eregri* or *Erekli*, or *Benderegli* (anc. *Heraclea*), on the coast, north by west of Boli, is a small sea-port town with 500 houses.

In the south-west and south parts of Asia Minor are: *Bidrûn* (*Halicarnassus*), a small town in a romantic situation, defended by a good castle, with a harbour and dockyards, where frigates and smaller vessels are built for the Turkish navy. *Krio*, near the cape so called, is remarkable for the ruins of the ancient *Cnidus*, one of the principal towns of Doris, where Venus had several temples, one of which contained the famous statue called the Cnidian Venus, a masterpiece of Praxiteles. *Marmoritza*, *Marmorice*, *Mermoris*, or *Mermeregheh*, a small town near the ancient *Phycus*, with one of the finest harbours in the Mediterranean, to the north of Rhodes. *Karagatch*, a little to the eastward, is a still finer bay, better suited for vessels of a large class, and of more easy access. *Makri* or *Macri* (*Telmisus*), a small town, near a very fine bay, not far from the magnificent ruins of the ancient Lycian city *Patara*, which was very flourishing when its celebrated oracle of Apollo attracted visitors; but is now deserted except by a few shepherds. There are the ruins of temples, a theatre in good preservation, part of the walls, and one of the gates. *Mais* or *Castellorizo*, a singular town, built on an insulated limestone rock, 800 feet high, to the east of Patara, with a fine harbour, and 8000 inhabitants, mostly Greeks. *Adalia* or *Satalia*, a large and flourishing commercial town, with a magnificent triumphal arch, erected in honour of the Emperor Adrian, at the north-west corner of the gulf to which it gives its name. At *Eski-Adalia*, the name given by the Turks to the magnificent ruins of the ancient *Side*, there is a theatre, the largest and best preserved of all on this coast. *Selefkeh* (*Seleucia*), with a harbour. The ruins of the ancient city consist of immense cisterns, catacombs, a theatre, and other buildings. *Mezellou*, a miserable town on the coast, south-west of Tarsous, near the ruins of *Soli* or *Pompeopolis*, which resemble those of Antinöe in Egypt, and Jerash in Syria. *TARSOUS* (*Tarsus*), formerly the most powerful and populous city of Cilicia, the rival of Athens and Alexandria for learning, whose academy was, in Strabo's opinion, the first in the world, is still a large town, of about 30,000 inhabitants. It has been for several years the great mart for the produce of the copper mines of Asia Minor. *Adana*, on the Sihoon, situate on a gentle declivity, surrounded with groves of mulberry, peach, apricot, fig, and olive trees, and vineyards, 28 miles E. of Tarsous. Population, chiefly Turks and Turcomans, about 30,000. It is a large and gloomy town, with well-furnished bazaars. *Sis*, 100 miles N.E. of Adana, a ruinous city, is the capital of Little Armenia, a name given to this part of Cilicia in the eleventh century, from numbers of expatriated Armenians having taken refuge there. *Pais* or *Bais*, on the north-east coast of the Gulf of Scanderoon, a small town, enriched by the piracies of Kutchuk-Ali, is now reduced to a heap of ruins. *Merash* or *Marash*, 85 miles N.E. of Adana, a middle-sized town, is the capital of a pashalic.

ERZROUM, the chief town of Armenia, and the capital of an eyalet, lat. $39^{\circ}55'12''$ N., long. $41^{\circ}17' E.$, is situated in an extensive and fertile plain, 30 or 40 miles in length, and from 15 to 20 broad, and watered by the Kara-su, or Western Euphrates. On every side are found rich grain countries, in which good horses, fine mules, cattle, and sheep, are reared in great numbers. Erzurum commands the road to Persia, protects the approach from the east to Constantinople, and is now the first important place in Turkey, whether it is entered from Persia or Georgia. The Pashalic yields in rank and extent only to that of Baghdad. The population, in 1827, was estimated at 130,000; it was subsequently, in consequence of the Russian invasion, reduced to 15,000; but it fluctuates considerably, on account of the vast number of strangers who are continually arriving and departing with caravans. In 1837 the settled inhabitants were estimated at 35,000. The town is partly surrounded by an old castellated wall, and contains a citadel; but a large portion is unwallled, where are the principal khans and bazaars. There are 36 khans; the custom-house is the largest in the empire, and the city is the entrepot of a great trade. The climate is severe, on account of the elevation of the town above the sea, which is ascertained to be 6114 feet. Immediately to the east of the town, is a low range of hills, rising from 800 to 1000 feet above the plain, called the *Deveh-Boyni* or Camel's Neck, which divides the plain of Erzurum from the *Plain of Pasin*, remarkable for its fertility, and drained by the head-waters of the Aras, which flow eastward. It contains a town, *Hasan-Khaleh*, once a considerable place, but now a heap of ruins, and containing only some 30 or 40 families. *Erzingan*, 90 miles W.S.W. from Erzurum, situate at the west end of a beautiful and rich plain, contains about 3000 families or houses, of which about 800 are Armenian, and the rest are inhabited by Turks. It is governed by a Bey, in dependence upon the Pasha of Erzurum. The south side of the plain, through which runs the Kara-su, is formed by the *Dijik-dagh*, a mountain range, peopled solely by Kurds, who inhabit villages in winter and cultivate the land. They are represented as rich, pay no sort of contributions to the Sultan, omit no opportunity of levying them upon passengers, and are in the constant habit of plundering their neighbours. *Kamak*, 26 miles S.W. from Erzingan, is a singular place on the Kara-su, containing 400 Turkish and 30 Armenian houses, but without commerce or manufactures. The people live by the cultivation of the neighbouring valleys, and by conveying wood down the river, which has sufficient water in most parts to admit of its being navigated by boats, but is frequently interrupted by rocks, shoals, and rapids. From Erzingan to Kamakh, the river runs through a very narrow defile, which is strong, and contains innumerable defensive positions. *Baibout*, in a deep mountain valley, 60 miles W.N.W. of Erzurum, on the high road to Trebizond, is composed of a few paved streets, shaded by the pent-houses of the bazaar, which is an open space, surrounded by coffee-rooms, and in the middle of which the horses are tied. It contains six mosques, and a population of 500 families. *Kars*, 100 miles N.E. by E. of Erzurum, the capital of an eyalet, and governed by a Pasha of two tails, was formerly a large town, containing from 6000 to 8000 families, but is now little better than a heap of ruins, and contains only from 1500 to 2000 families. The climate is very severe; but the fertile plains in the vicinity produce abundant crops of excellent wheat, and various other grains. About 40 miles E. by S. of Kars are the ruins of *Ani*, once the capital of Armenia, surrounded by walls of a soft red sand-stone, still perfect, and having a fresh and finished appearance. The walls are about six miles in circuit, and contain the remains of many magnificent structures; the whole surface of the enclosure is indeed covered with broken columns and capitals of exquisite workmanship. *Batun*, near the mouth of the Joruk, in the eyalet of Kars, has the appearance of a newly-settled colony. It is well sheltered, and its bay is capable of containing a large number of ships; but it is an unhealthy station, and the people who venture to reside there from July to October are exposed to severe attacks of fever. *Bayazid*, the seat of an hereditary Pasha, 150 miles E. by S. of Erzurum, and not far to the S.W. of Mount Macis (*Ararat*), hangs romantically on the side of a rugged precipice, which rises considerably above it. A citadel, containing a well-built mosque and the Pasha's palace, occupies a lofty projection at the top; but

the town is in a miserably ruined state. It contained in 1836 only about 190 Armenian and 300 or 400 Moslem families. The latter are nearly all Kurds; Kurdish is the common language; and indeed the whole pashalic of Bayazid forms a part of Kurdistan. *Mûsh, Moosh, Mouss*, a considerable town, with 5000 inhabitants, the residence of an hereditary Pasha, about 90 miles S.E. of Erzurum, in the valley of the Murad, or Eastern Euphrates. The Armenians of Mûsh have five churches, one of which, called the church of the forty steps, is said to be 1300 years old. About 15 miles S.W. of Mûsh, is the monastery of *Changuri*, a famous place of Armenian pilgrimage. *Bedlis, Bellis*, or *Bitlis*, a well-built commercial town, in a picturesque situation at the meeting of three valleys, a few miles from the south-west corner of the lake of Van, on the banks of a stream running to the Tigris, contains about 2000 Moslem and 1000 Armenian families.—(*Journal R. Geog. Soc. Lond.* VIII. 72.) *Van*, situate near the east side of the great lake to which it gives its name, in a large plain, studded with villages and gardens, is noted as one of the bulwarks of the Ottoman empire in its contests with Persia, and is a strong and commercial city, with about 12,000 inhabitants. It appears to have been in ancient times a place of great importance; it has been always called by the Armenians *Shamiramukert* (Semiramis' town), and the people of the neighbourhood still venerate the memory of the Assyrian kings, whose names they have preserved, in connection with several localities. The citadel is built on an isolated hill, believed by some travellers to be artificial, in the interior of which there are large caverns and vaulted rooms, where remains of statues and other ancient objects are still sometimes found. But the most interesting relics are the inscriptions, in arrow-headed characters, which cover the entrance and the sides of the hill. Ruins and relics of the same kind are found not only in vicinity of the city, but in all the surrounding country. South-west of Van is *Erdemid* or *Artemid*, the ancient *Artemita*. The banks of the lake, particularly the eastern and southern sides, are very mountainous, and are partially covered with wood; the soil is fertile, and the pasturage excellent. Van is the seat of a Pasha, who is dependent on the Pasha of Erzurum.

§ Cities, Towns, &c., in Syria and Palestine.

HALEB (*Khelbon* of Ezekiel, *Chalybon* and *Berea* of the Greeks, *Aleppo* of the Franks), situate on the banks of the Koikh, in N. lat. $36^{\circ} 12'$, and E. long. $37^{\circ} 12'$, was, of all the Ottoman cities, inferior only to Constantinople and Cairo in extent, population, and wealth; while, in respect of salubrity, the elegance and solidity of its buildings, and the neatness of its streets, it was superior to both of these. It is encompassed by walls three miles in circuit; but the suburbs were so extensive, that the total circumference was estimated at seven miles, and the population at 250,000. The city stands low, with nothing in the surrounding country that can add beauty or importance to its position. It is protected by a strong castle on the top of an immense mound, of a circular form, and surrounded by a wide ditch. By two successive earthquakes in 1822, more than half the city was destroyed, and its finest buildings ruined or considerably injured; and the destruction was almost completed by another earthquake in 1830. It is very slowly recovering from these disasters; but is still a large and important city, with a population of nearly 60,000 souls. Formerly its commerce placed it in the first rank among the cities of Asia, and it was the grand emporium of Syria, Arabia, Mesopotamia, and Armenia. It is still the emporium of Northern Syria, and is connected in extensive commercial transactions with Diyarbekr and the upper parts of Anatolia, and with Merdin, Mosul, and Baghdad. Since 1832, several British merchants have established houses at Aleppo. The principal manufacture of the city is that of stuffs, which are famous throughout the East, which is still extensively carried on. They consist of silk stuffs, with gold and silver thread; silk and cotton, flowered and striped; and striped cotton only, called nankeens. There are about 4000 looms employed, and about 4800 persons, men and children, producing an yearly value of about £250,000 sterling. The chief attractions of Aleppo are its gardens, which are watered by the Koikh, and produce abundance of fruit and vegetables, among which the pistachio nuts are much celebrated. The townspeople are chiefly dependent for water on an aqueduct, attributed to St. Helena, which still brings water from a distance of several miles. Aleppo is about 60 miles from the sea on the one side, and is equally distant from the Euphrates on the other.

In the *eyalet* of Aleppo: *Scanderoon, Iskenderûn*, or *Alexandretta*, 60 miles W.N.W. of Haleb, is a small town situate in the midst of pestilential marshes, on the southern shore of a fine gulf, which penetrates 26 miles inland from Ras Khanzir, gradually diminishing in breadth from 10 miles to 7. The bay is bordered on the south and east sides by the lofty mountain ridges of Amanus, which, in some places, rise gradually from the sea, and, in others, are two or three miles inland, leaving between them and the shore small plains composed of a rich light soil. The harbour of Scanderoon consists of a fine bay running in south-east from the gulf, and protected from all winds; it is capable of containing in perfect security from 30 to 35 sail of ships. *Latakia* (anc. *Laodicea*), 90 miles S.W. by W. of Haleb, near Cape Ziaret, is a small town with a well-sheltered harbour, which has also now become one of the ports of Aleppo. *Antakia* (anc. *Antiochia*, or *Antioch the Great*), 60 miles W. of Aleppo, on the banks of the Orontes, once the proud capital of Syria, with 700,000 inhabitants, is now a ruinous town, with houses built of mud and straw, narrow dirty streets, and a population of less than 20,000. Its ancient walls, about five miles in circuit, are still mostly standing, but are in a very decayed and mouldering condition. The river, which is from 100 to 150 feet wide, and is crossed by a substantial bridge, was formerly navigable to the sea, and might easily be rendered so again, for larger vessels than the boats which are used upon it. The fall of the stream scarcely exceeds $5\frac{1}{2}$ feet a mile. *Suadeah*, a small town in a plain north from the mouth of the Orontes, near which is *Kespe*, in the ruins of the ancient *Seleucia Pieria*, the port of Antioch, where the masonry of its magnificent harbour is still in so good preservation, as to be capable of repair. *Jeboul*, 20 miles S.E., a small village in the Valley of Salt, so called from a large *sibkah*, or salt marsh, where a great quantity of salt is gathered. *Sermein*, 22 miles S.W., another small village, with numerous cisterns cut in the rock, and several caves inhabited by the natives. *Edlip*, a small town of 1000 houses, surrounded with olive trees, 30 miles S.W. *Reitha* and *Benin*, two little towns, containing ruins, 40 and 45 miles S.W. *Famiah* or *Kalat-el-Medyk*, 70 miles S.S.W., upon the Orontes, occupying the site of the ancient *Apamea*, where the kings of Syria had established their principal stud, and where they maintained 500 elephants. Its rich pasturages still attract a number of Bedwins, and the abundant fishery in the lake *El Taka*, which communicates with the Orontes, produced to the governor, at the date of Burekhardt's visit, £3000 a-year. *Hamah*, 53 miles S. by W., the *Hamath* of Scripture, and the Greek *Epiphania*, a large town on the Orontes, an industrious, commercial, and flourishing town, the mart for supplying the wants of the Arab tribes, who roam over the deserts between Syria and the Euphrates. *Ali-Bey* gives it a population of 100,000; Burekhardt, of only 30,000. *Homs*, 115 miles S. by E., the ancient *Emesa*, famous for a splendid temple of the sun, whose priest, Heliogabalus, was elected Roman emperor, A.D. 218. The plains of Homs have been the scene of two great and decisive battles; the first ending with the defeat of Zenobia, queen of Palmyra, by the Roman emperor Aurelian; and the second, 7th July 1832, when nine pashas of three tails, with their respective forces, were defeated by Ibrahim Pasha, and their army put to flight. *Palmyra*, 160 miles S.E. by S., the *Tadmor* of Scripture, a mass of splendid ruins in an oasis in the desert, the remains of a great commercial city which attained the height of its prosperity in the third century, when its queen, Zenobia, defied the arms of Rome. The present inhabitants are a few Arabs, who occupy about 30 mud huts among the ruins,

and obtain a subsistence by cultivating a few detached spots, and feeding some flocks of goats and sheep. Two small streams impregnated with sulphur run among the ruins, and are lost in the sands. In the seventh century Palmyra was still so fortified, as to stand a siege from the Kaliph Merwan, but after that period it seems to have fallen gradually to decay. *Beilan* or *Bylan*, a small town near the western entrance of the great pass, leading between Mounts Rhosus and Amanus from Aleppo to Scanderoon. From Beilan to Scanderoon the descent is very striking: the heights are lofty, picturesque, well covered with wood, and a great part of them planted with vines, disposed in the neatest order, and carefully cultivated; the summit of the pass is, by barometrical measurement, 1584 feet above the Mediterranean, and the mountain above it reaches 5337 feet. *Aintab*, 65 miles N. by E., near the source of the Koikh, is a large town, with 20,000 inhabitants, in a rich and fruitful district. *Manbij* or *Bambuch*, 56 miles E. by N., where the walls still standing attest the ancient greatness of *Mabog* or *Hierapolis* (*Holytown*), sacred to the worship of the Syrian goddess Astarte, called in Scripture the Queen of Heaven. The goddess was represented by a monstrous image, half woman, half fish, and had a magnificent temple, served by 300 priests, and filled with rich offerings, which were plundered by Crassus, the co-triumvir of Cæsar and Pompey. *Shoer*, a town on the Orontes, on the road from Aleppo to Latakia, which was destroyed by the earthquake of 1822.

TRIPOLI, lat. 34° 26', long. 35° 52', called by the Turks *Tarabolus*, is built on the declivity of a hill, about a league, or half an hour's journey, from the sea shore, near the mouth of the river Kadisha. It is one of the neatest towns in Syria, the houses being all well built of stone, and neatly fitted up within; it is surrounded by luxuriant gardens, which produce abundance of oranges and lemons. The population amounts to about 15,000; among whom are several European merchants, and consuls for France, England, and Austria. The principal article of export is the soap produced on the neighbouring mountains, of which it formerly exported 800 quintals every year, at about £80 the quintal; but its commerce has been lately on the decline. The next article of export is sponges, which are procured on the sea shore, the best being found at some depth in the sea: soap is exported to Tarsous for Anatolia and the Greek islands, as well as the alkali for making it, which is procured in the eastern deserts; the khan of the soapmakers is a large well-built edifice. The marina or port forms a little town by itself. Tripoli was formerly the seat of a Pasha, whose command extended from the river Ibrahim to Latakia, and eastward to the mountains.

In the *eyalet* of Tripoli are: *Batrun*, 15 miles S. of Tripoli, a small town of 300 or 400 houses, with a harbour for boats or small vessels. *Belmont*, 2 hours S. of Tripoli, a convent on a very high rocky mountain, of difficult ascent, which overlooks the sea. *Kanobin*, 14 miles S.E., a convent, the residence of the patriarch of the Maronites, may be considered the capital of that tribe. *Tortosa*, 30 miles N., once a very strong city, still exhibits the remains of two walls half a mile in circumference, but is now a miserable little town. Nearly opposite is the island *Ruad*, the *Arvad* of the Scriptures, the *Aradus* of the Greeks and Romans, once occupied by a Phœnician city, with houses of 5 or 6 stores, where commerce and liberty had collected an immense population. It is now a naked rock. Only a few masses of strong walls, and numerous cisterns cut in the rocks, attest its former existence. *Jebike* (*Gabala*) on the coast, 35 miles N. of Tortosa, is remarkable only for its antiquities, its tombs cut in the rocks, and its mosque of Sultan Ibrahim, which was demolished by the earthquake of 1822. *Jebail* or *Gebail*, 20 miles S. by W. of Tripoli, is the ancient *Byblos*, the chief seat of the worship of Adonis, whose beauty and tragical history occupy an important place in classic mythology. About a mile from the town flows the river *Ibrahim*, the ancient *Adonis*, the periodical reddening of whose waters, as if commemorative of the shed blood of Adonis, gave occasion to a famous Phœnician festival. Near Gebail is a fine sponge fishery. *Masiat* or *Masyad*, 40 miles N.E., a small town, the principal place of the Ansarians.

ACRE, or *AKKA*, or *ST. JOHN D'ACRE* (*Ptolemais*), lat. 32° 54', long. 35° 8', the capital of an *eyalet*, was a place of great importance in the time of the Crusades, and sustained many sieges alternately from the Saracens and Christians. It is memorable in modern history for the gallantry with which it was defended in 1799 against Buonaparte, who, after spending 61 days before it, was obliged to retreat. It was afterwards strongly fortified by Jezzar Pasha, which enabled it to endure a siege of seven months from the Egyptian army in the winter of 1831-2. Its fortifications were subsequently repaired and improved; but on 3d November 1840 the town was reduced to a heap of ruins by a three hours' bombardment from the British fleet, acting as the allies of the Sultan, and the fortress evacuated by the Egyptians. It stands at the north-east side of a fine bay, near the mouth of the river *Naamany* (*Belus*). The harbour of Acre is the best on this coast. Acre is the principal mart for the cotton of Syria, and the principal commercial nations of Europe have consuls here.

Mount Carmel, 8 or 9 miles S.W., forming the south-west side of the bay of Acre, terminates in a rocky promontory about 2000 feet high, and contains a number of grottoes once occupied by the cells and chapels of the austere order of monks called Carmelites. A very few still remain, who lead a recluse life, and are venerated even by the Mahometans, who supply their wants. The mountain bears the traces of ancient aqueducts, and of plantations of vines and olives, and on the top is a monastery built originally by the empress Helena, and recently restored in a very substantial and elegant style, chiefly at the expense of the late king of France, Charles X. At the foot of the hill, on the southern shore of the bay of Acre, is *Caipha*, a walled town, with about 3000 inhabitants. *Kaisariyah* (Greek, *Kaisareia*, Latin, *Cæsarea*), 30 miles S.S.W. of Acre, founded by Herod the Great in honour of Augustus Cæsar, and one of the finest and most magnificent cities of the East, so celebrated in the first age of Christianity, and so important during the Crusades, has now scarcely a single inhabitant; but the preservation of its walls, its harbour, and its monuments, says Count Forbin, inspires an indefinite surprise. *Nazra* (*Nazareth*), 20 miles S.E. of Acre, a mean and wretched village or town of 3000 inhabitants, contains an extensive building, the Latin convent; and the church of the Annunciation is the finest in Palestine after that of Bethlehem and the church of the Holy Sepulchre at Jerusalem. Another church contains several grottoes now converted into chapels, where popular belief places the kitchen, the bedchamber, and other parts of the house of the Virgin Mary; and not far from this, tradition shows the place where the angel Gabriel appeared to Mary, Joseph's work-shop, and the school to which our Lord went to be taught with other boys. Near Nazareth is *Caná*, a pretty little town of about 300 inhabitants, and *Mount Tabor*, the traditional scene of the Transfiguration, where within a grotto have been built three altars in memory of the three tabernacles which Peter proposed to build. Once a-year, on the day of the Transfiguration, the Latin fathers celebrate mass here. Tabor is a conical hill, nearly detached from those around it; its form is singularly regular; the summit is flat, and commands a most magnificent view. In the same neighbourhood are the reputed scenes of several other miracles, to which the monks go in procession every year to chant the gospel on the day of their commemoration. *Tabariah* (*Tiberias*), 30 miles E.S.E., a town with about 4000 inhabitants on the south-west shore of the Sea of Galilee, was nearly destroyed by an earthquake in January 1837. It was one of the four holy cities of the Jewish Talmud, and the residence for 350 years after the destruction of Jerusalem of the principal Jewish doctors, who founded there a school of great celebrity. *Safed* or *Saffad* or *Szaffad*, 27 miles E. by N. of Acre, a small, but well-built and flourishing town, of about 600 houses, was swallowed up by the earthquake of January 1837. It was one of the four holy cities of the Jews, from which they sent forth missionaries to seek out their poor brethren; it contained a college and a printing press; and very near it was Jacob's house, consisting of magnificent tombs cut in the rock, which the Turks consider as the ancient

abode of the patriarch, and the citadel, which appeared to be one of the most ancient structures in Palestine; its walls were of extraordinary thickness and strength, and are often mentioned in the wars of the crusades. *Banias*, a village of about 150 houses, supposed to be built on the site of the ancient Dan; near which one of the branches of the Jordan issues from a cavern under a precipice. *Sûr or Tyre*, 28 miles N. by E. of Acre, the queen of the sea at the dawn of profane history, the cradle of commerce, and the chief city of Phœnicia, contained in the latter half of the 18th century only about a dozen of wretched huts, which sheltered a few fishermen. It afterwards began to recover, and now forms a considerable town, is well built, and contains several mosques, churches, and bazaars. The original Tyre stood on the mainland, but that having been taken and destroyed by Nebuchadnezzar, king of Babylon, the Tyrians built a new city on a small island off the coast, where they were again besieged by Alexander the Great, who joined the island to the continent by an immense mound, which now forms an isthmus. *Sidde (Sidon)*, the mother city of Tyre, 23 miles farther north, is still a considerable town, though somewhat decayed.

Beyrout or Beirout 65 miles N.N.E. from Acre, and 48 miles S.S.W. of Tripoli, one of the ancient cities of Phœnicia (*Berytus*), is situate in a lovely plain, with fine scenery all round. It is the port of Damascus and central Syria, and has more commercial activity than any other Syrian port. Many merchants reside in Beyrout, besides the consuls and agents of the various European powers. The town and neighbourhood have been of late greatly improved. A new lazaretto has been built by Ibrahim Pasha; and valuable productive mines of coal and iron have been found in the neighbourhood, within a few miles of the town. The white houses of the town, sloping up from the sea, are encompassed by vineyards and mulberry gardens, and the numerous villas of its merchants. That singular plant, the prickly pear, is very abundant, and often composes in part the hedges of the paths and gardens, where it is an effectual guard against forbidden feet. *Antoura*, 10 miles E. of Beyrout, is a beautiful and celebrated monastery; and three hours north of it is *Larissa*, a charming monastery, built in the Italian style, in a very elevated situation; not far from which is *Bezoumar*, the finest and richest convent of Kesrouan, built upon a high mountain. *Zahlé*, 22 miles E. of Beyrout, a small town, is rapidly increasing, and is one of the places where the coal and iron have been found. *Deir-el-Kamir*, 13 miles S.E., the chief town of the Druses, consists of a large village, with 15,000 or 18,000 inhabitants, and a large *serai* or palace, which has no pretensions to elegance. *Nahar-el-Kelb (Dog River)*, which reaches the sea about 12 miles north of Beyrout, is the ancient *Lycus*, which, according to Strabo, was navigable, though very rapid. The mountains, which are here very high and steep, come down to the sea, leaving only the road between them and the bay. In the neighbourhood, the sides of the rocks are in many places covered with Greek and Latin inscriptions, and with symbolical figures, whose meaning cannot be deciphered. *Baalbec*, at the head or north end of the valley Bekaa, near the source of the Leitani, 50 miles E.N.E. of Beyrout, formerly a considerable town, is now a mere village with 200 inhabitants. It occupies the site of *Heliopolis* (Sun-town), and contains several splendid remains, the principal of which is that of the temple of Baal, or the Sun-god, a beautiful building, with a Corinthian peristyle, built in the reign of Antoninus Pius, on the site of a more ancient fabric, fragments of which are still visible. North of Baalbec is the highest part of Lebanon, and on one of the roads from Baalbec to Tripoli are the ancient cedars of *Lebanon*, which the people of the country believe to be the remains of the identical forest which furnished the timber for Solomon's temple. Only seven of the old trees remain, but there are many hundreds of young trees growing up to supply their places. An ascent of three hours from the cedars brings the traveller to the snow-capt top of Lebanon, from which there is a splendid view of the mountain regions, of the plains at their base, and the not far distant Mediterranean. Before reaching this point, however, vegetation has expired, with the exception of a few stunted cypresses, which lose their spiral form, and, throwing out their branches sideways, have the appearance of small oaks. Every year, on Transfiguration day, the Maronites, the Greeks, and the Armenians, celebrate a mass at the foot of one of the ancient cedars, on a homely altar of stone. The nearest village to the cedars is *Bahirai*, or *Bisharra*, 18 or 20 miles S.E. of Tripoli.

DAMASCUS, (EL SHAM of the Arabs), lat. 33° 29', long. 36° 34', situate in a beautiful plain, on the east side of Eastern Lebanon, watered by numerous streams which flow from the mountains eastward into the desert, where their surplus water forms a lake or marsh, called the *Bahr-el-margi*. Lake of the meadows. The plain is so extensive, that the hills which bound it to the north and south can merely be discerned from the opposite sides. Towards the north-west the mountain *Ashlooh* bounds it in the distance, and on the south-east it extends to the *Jibbel-Hauran*. The city stands on the west side of the plain, not more than two miles from the place where the river *Barrada* issues from a cleft in the mountains, is studded with mosques and minarets, and is encompassed with gardens, extending in common estimation not less than 30 miles round, which gives it the appearance of a noble city in a vast wood. The gardens are planted with fruit trees of all kinds, and are kept fresh and verdant by the waters of the Barrada, which is distributed by canals and streamlets. The city is built of brick, and its streets are narrow and gloomy, the inhabitants reserving their magnificence for their interior courts and palaces. Several of the streets have rivulets running through them, which furnish plentifully the great eastern luxury of water. The principal building is the great mosque, which was formerly a Christian church, and now possesses so peculiarly sacred a character, that Franks are rarely permitted to enter it. This cathedral is one of the finest that the zeal of the early Christians produced; the architecture, which is Corinthian, is very superior in beauty and variety to that of any other mosque in Ottoman Asia. Next to it in architectural importance is the grand khan, a large and splendid building, with a very lofty roof supported by granite pillars, and surmounted by a large dome in the centre. The inhabitants of Damascus, amounting to about 100,000, have a bad reputation in the east, where *Sham Shoumi*, "the wicked Damascus," has even passed into a proverb. Formerly they were exceedingly fanatical, but since they fell under the Egyptian yoke, they have learned to be more liberal; European merchants have settled among them, and a British consul has hoisted his national flag in this holy city. Damascus has long been the most flourishing city in Syria, a distinction which it owed to the excellent character of several successive pashas, through whose exertions the whole of the territory assumed an improved and cultivated appearance. It has lost the manufacture of sword blades, for which it was famous in the middle ages; but it still has considerable manufactures of silk and cotton; and the fruits of the neighbouring plain, dried and prepared into sweetmeats, are sent to every part of Turkey. Damascus is a place of the highest antiquity, and is the point of union for the caravans of pilgrims from the north and the east of Asia, who travel towards the Holy Land of Arabia under the guardianship of its pasha. On this account it has received the name of "the Gate of the Kaaba;" but, what is of more importance, the resort of pilgrims produces a great trade, the pilgrims being careful, and indeed being expressly allowed by the Koran, to combine traffic with the more pious object of their journey. Ophthalmia and intermittent fevers are very prevalent; the former disease is attributed to the extensive irrigation, and the latter to the exhalations of the *Bahr-el-margi*, which, in summer, becomes a pestilential swamp. It is 140 miles N.E. by N. of Jerusalem; 180 S. by W. of Aleppo, and 60 miles E. by S. of Beyrout. *Salahieh*, a considerable village north-west of the city, contains numerous villas and gardens, and is the summer retreat of the wealthy Damascans. About a day's journey to the north-east, at *Malool*, is a number of curious grottoes, inhabited by Syrian Christians.

To the south of Damascus, and east of the Jordan, are: *Lusrah*, the ancient *Pozor* or *Pozrah*, 63 miles S., celebrated for its vineyards, but now inhabited only by about fifteen families. It is, ne-

vertheless, described by Burckhardt as the largest town in the Haouran, including its ruins. *Jerash* (*Gerassa*), 80 miles S. by W., on a small stream, in a valley on the south-west side of Mount Gilcad, its quays deserted, but the traces of its ancient walls remain, inclosing three splendid temples, two amphitheatres, porticoes, baths, and hundreds of columns, which vie even with those of Palmyra.

JERUSALEM (EL KHODDES of the Arabs), lat. $31^{\circ} 48'$, long. $35^{\circ} 14'$, stands on part of four small hills, nearly surrounded by deep ravines, and is enclosed with Gothic embattled walls, about two miles and a half in circumference. The houses are heavy square masses, very low, without chimneys or windows, with terrace roofs or domes on the top, and presenting the appearance of prisons or tombs. The streets are narrow, dusty, and unpaved. The population has been variously estimated at from 20,000 to 30,000. The manufactures consist chiefly of objects accounted sacred; as shells of mother-of-pearl, considered as badges of pilgrimage, crosses and beads made of the stones of dates, of hardwood, or of black fetid limestone from the Dead Sea. These holy toys are purchased in large quantities by pilgrims and travellers. The principal support of the city is derived from the numerous pilgrims who resort to it from all parts of the east, and even from Spain, to visit the holy places. The principal and most conspicuous edifice is the mosque of Omar, built on the site of Solomon's Temple, and inferior in holiness only to the Beitullah (House of God) at Mecca. It is an octagon, standing in the middle of an oblong square area, paved with white marble. The walls are externally covered with painted tiles, adorned with arabesques and verses from the Koran in gold letters, and altogether, it is one of the finest buildings in the Mohammedan world. It stands on the east side of the city, overlooking the deep valley of Jehoshaphat. The *Church of the Holy Sepulchre*, the grand object of attraction to the Christian pilgrims, was built originally by Helena, the mother of Constantine the Great, on a site which was supposed to include the scene of the greatest events of the history of our religion, the crucifixion, the entombment, and the resurrection of our Saviour. It contained also, till recently, the tombs of Godfrey and Baldwin, the first Latin kings of Jerusalem, which, however, have now disappeared; and a rent is shewn in the natural rock, supposed to have been produced by the earthquake which happened at the crucifixion. In October 1808, the ancient church was destroyed by fire; and in its stead the present building was erected, at an expense of upwards of £200,000, by the Greeks and Armenians, whose clergy have, in consequence, usurped the principal charge of the holy places, which was formerly possessed by the Latins. Of the thousands of Christian pilgrims who annually visit Jerusalem during Lent, almost the whole are of the Greek, Armenian, and other oriental churches, with scarcely a Catholic among them. Baron Geramb states, that at the period of his pilgrimage, in 1832, there were only himself and three other Catholics among 4000 pilgrims. There are three convents, belonging respectively to the Latins, the Greeks, and the Armenians, where travellers and pilgrims are hospitably entertained. The Mount of Olives overlooks the city on the east side, on the summit of which is a mosque, built on the site of a church erected by St. Helena, and occupying the very spot from which Christ ascended. In a kind of chapel, in the centre, is to be seen the print left in the rock by the left foot of our Saviour.—(See Ceyton.) The temperature at Jerusalem is exceedingly changeable; it has happened, that in the morning the heat has been suffocating, while at night snow has fallen. The city stands about 2750 feet above the level of the sea in the midst of a hilly country which is little better than a desert.

Bethlehem, 7 miles S. W. by S. of Jerusalem, the place where our Saviour was born, is still a large village, with 3-00 inhabitants, and contains a fine church, built over the site of the place of the nativity, and visited of course by numbers of pilgrims. *El-Khalil* (*Hebron*), 20 miles S. by W., in a country less arid than that around Jerusalem, has a population of 4000 or 5000 Turks and Jews. It is a pretty cheerful-looking town, on the slope of a hill, surrounded with vineyards and olive grounds. The magnificent church built by the empress Helena on the supposed site of Abraham's tomb, has been converted into a mosque, entrance to which is allowed only to Mussulmans. *Santa Saba*, 8 or 9 miles S. E. of Jerusalem, a monastery remarkable for its situation on a height, which rises precipitously several hundred feet from the deep valley of the brook Kedron. Beside it are numerous grottoes, which are said to have been inhabited by more than 10,000 monks at the epoch when St. Saba introduced the monastic life into Palestine. In continual danger from the wild Arabs, the convent appears like a fortress, with immensely strong and lofty towers. *Jericho*, 14 miles N. E., is represented by the modern *Rajah*, a miserable village of about 50 huts, or by some ruins in its vicinity, in a hot and dirty circular plain. *Nablous*, 30 miles N. of Jerusalem, one of the most beautiful and flourishing towns in the Holy Land, stands in a bold and fertile valley, surrounded by hills and embosomed in groves and gardens. The inhabitants, about 10,000, are employed in making soap and other articles for the neighbouring country. Nablous seems to be the metropolis of a very rich and extensive district, abounding with all the necessities of life; it occupies the site of the ancient *Shechem*, which became the capital of the Samaritans after the destruction of Samaria by Shalmanaser. Its modern name is a corruption of the Greek *Neapolis*, New town. In its neighbourhood is the tomb of Joseph and the well of Jacob. *Sebasta*, 37 miles N. by W. of Jerusalem, the ancient *Samaria*, which was rebuilt by Herod the Great, and named *Sebaste*, in honour of his imperial patron, Sebastos Kaiser (Augustus Caesar), and adorned with a temple of Sebastos, and other magnificent works. Its situation is extremely beautiful and naturally strong, on a fine large insulated hill, compassed all round by a broad deep valley, which again is surrounded by four hills, cultivated in terraces to the top, sown with grain, and planted with fig trees and olive-trees. The hill of Samaria likewise rises in terraces to a height equal to any of those around it. The present village is small and poor; but on the hill in different places are remains of the ancient buildings. *Jaffa* (*Jaffa* or *Yaffa*), 40 miles N. W., formerly *Joppa*, one of the most ancient sea-ports in the world, its history stretching far back into the twilight of the early ages, is situate in a fine plain on the shore of the Mediterranean, and owes its continued celebrity and importance to its being the port of Jerusalem. As a station for vessels it is one of the worst on the coast. The present town stands on a promontory jutting into the sea, rising about 150 feet above its level, and offering on all sides picturesque and varied prospects. The interior of the town has all the appearance of a poor village. The streets are very narrow, uneven, and dirty; the inhabitants are estimated at between 4000 and 5000, of whom the greater part are Turks and Arabs; the Christians being only about 600, and consisting of Roman Catholics, Greeks, Maronites, and Armenians. The Latins, Greeks, and Armenians, have each a small convent for the reception of pilgrims. *Ramleh*, 35 miles N. W., on the road from Jerusalem to Jaffa, supposed to be the ancient *Arimathea*, is a pleasant town, situate in a fertile plain, with a population of 5000, who are principally engaged in agriculture. *Scalona*, 50 miles W. by S., an inconsiderable town, representing the ancient *Askelon* or *Ascalum*, a city of the Philistines. Askelon was of great note among the ancients for a temple of Derketo or Astarte, the Ashtaroth of scripture, who was here worshipped in the form of a mermaid, and is said to have been the mother of Semiramis. *Gaza*, 56 miles S. W., is a little town with 4000 or 5000 inhabitants.

§ Cities, Towns, and Remarkable Places, in Algezira or Mesopotamia.

DIYARBEKR or **DIARBEKR**, lat. $37^{\circ} 56'$, long. $39^{\circ} 52'$, the ancient *Amida*, is situate on the right bank of the Tigris, with intervening gardens between the river and the town. The town in its prosperity contained 40,000 families or houses, and numberless looms in constant work; it enjoyed an active trade with Baghdad in Indian, and with Aleppo in European produce, and was one of the most flourishing and wealthy cities of Asia. The plain was cultivated in every part, and covered with villages

and within three miles of the gates were several villages, each containing from 400 to 500 houses and more than one Christian church. But since the commencement of the present century, all this prosperity was destroyed by the Kurds, who plundered the caravans, and kept the city in a state of siege. The assailants were repressed by Reshid Pasha in 1837, and the communication re-opened; but since his defeat at Nezb, by the Egyptians, in 1839, the Kurds are said to have again broken loose. The climate, though excessively hot in summer, cannot be considered unhealthy, and in winter the temperature is delightful. The Tigris is not used as a channel of communication so high up, but rafts of timber are sometimes floated down from the mountains above the town.

About 36 miles north-west of Diyarbekr, is *Arghana*, situate under a lofty peak, surmounted by a large Armenian convent, which overlooks a vast plain. It contains about 600 families, but appears in a very dilapidated state. Ten miles N. by W. is the copper mine of *Arghana (Arghana-Maden)*, around which are collected 743 families, of which 270 are Greek, 173 Armenian, and 300 Turkish, the first and the last being all engaged in directing or working the mines, the Armenians are tradesmen or artisans. From the mine to the town the road lies over steep, difficult, and barren mountains. In this neighbourhood, also, the sources of the Tigris are only 10 miles distant from the waters which flow to the Murad. In the district of Diyarbekr, 24 hours' distant, is *Sert*, believed by D'Anville and Kinnear to represent the ancient *Tigranocerta*; but according to M. Saint Martin, Diyarbekr itself is the *Tigranocerta*, where Tigranes, king of Armenia, was defeated by Lucullus, 67 years a.c.

In the valley of Diyarbekr, or the upper Tigris, there are no other places of any importance. The watershed between the Euphrates and the Tigris, in this neighbourhood, is the *Karajeh-dagh*, which extends in a direction parallel to the Tigris, at no great distance from the river. Between these mountains and the Euphrates itself, lies the pashalic of *Orfa*, which contains *Orfah*, the ancient *Edessa*, 40 miles east from the Euphrates, on the banks of the little river *Daisan*, which, after joining the *Giallah*, falls into a small lake about 25 miles below the town. *Orfah* is built on parts of two hills, and in the valley between them, and is surrounded by a wall three or four miles in circuit. The streets are narrow but paved, and not dirty, the bazaars numerous and well supplied, the khans also numerous, and some few caravansaries excellent. The number of mosques with minarets, seen from without, is fifteen; but the one which is held in the highest reverence and esteem, is that of *Ibrahim-el-Khalil* (Abraham the friend), which contains a tank or pool teeming with fish, which are preserved in honour of the patriarch Abraham, this town being the supposed *Ur of the Chaldees*. The manufactures of the town are confined chiefly to articles of the first necessity, principally coarse woollen and cotton cloths. The population is estimated by Mr. Buckingham at 50,000, among whom are about 2000 Christians and 500 Jews, the rest being Mahometans. *Racca*, 85 miles S. by E. of *Orfah*, also gives name to the same pashalic, and stands on the northern or left bank of the Euphrates, where it receives the waters of the small river *Beles*, or *Belish*, or *Belejish*. *Racca* is the Greek *Nicephorium*, and was once the favourite residence of the Khalif Haroun-al-Raschid, the ruins of whose palace may still be seen. It is now a very insignificant place, containing only about 30 houses. *Haran*, the place of Abraham's sojourn, before he went into Canaan, and famous in latter times, under the name of *Charræ*, for the defeat of the Triumvir Crassus by the Parthians. At *Jouur-Khouri*, 12 miles east of *Orfah*, is an immense number of artificial caves regularly arranged, presenting the remains of a subterraneous city. *Nisibin (Nisibis)*, 120 miles E. of *Orfah*, and nearly the same distance N.W. of *Mosul*, was formerly a strong Roman fortress, and the frontier city between the Romans and the Parthians; but only the foundations of its walls remain, the interior being filled with stones and rubbish, and containing a hamlet of some thirty houses. *Dara*, 3 miles W. by S. of *Nisibin*, is another fortress, now in ruins, whose foundations may be traced more than two miles. *Merdin* or *Mardin*, 60 miles S.E. by S. of *Diyarbekr*, is the old Roman town of *Mardis*, the walls of which are still in tolerable repair. It consists of about 3000 houses, looking down from its heights of calcareous rocks on the plains below. It used to be reached by a stair more than a mile in length, cut in the rock, at the top of which is the gate, but the stair is now converted into a good road. The site of the town is so elevated, that the Turks say the inhabitants never see a bird flying over their heads.

Along the course of the Euphrates: *Bir*, on the east bank of the river, situate on a steep acclivity, contains between 1800 and 2000 houses, and is 3½ days' journey from Aleppo by caravan, lat. 36° 59', long. 38° 7'. The stream is here very wide, and so rapid, that often the ferry boats can only cross it in an oblique direction. The inhabitants are Turks, who also extend about 5 or 6 miles down the river, and are described as a peaceable people. The Arab tribes commence about 14 hours below *Bir*, where there are some ruins called *Biluhah*, on the left bank. About 8 hours below *Bir*, on the right bank, are the ruins of *Salamia*. *Giabar* is a town of about 1000 houses and tents, 35 hours below *Bir*, on the left bank, near which there is an abundant supply of bitumen. *El-Der*, supposed to be the ancient *Thapsacus*, on the right bank, contains about 1500 houses. *Karkasia (Kirkesian)* of the Greeks, *Circesium* of the Latins, *Carchemish* of the Hebrews, at the mouth of the Khabour. *Annah*, 170 miles below *Racca*, on the right bank, consists of one long, narrow, winding street, running along the narrow space between the river and the high grounds. The town contains two mosques, and about 1800 houses. *Hit*, 33° 43' N. lat., 42° 27' E. long., contains about 1500 houses, built round a long hill, which rises parallel to the right bank of the river. The houses are generally one or two storeys high, and flat-roofed; the streets are narrow, dirty, and steep. In the neighbourhood, for miles both above and below, there are numerous springs and streams of salt water and bitumen. *Felujiah*, 140 miles below *Hit*, is a castle on the left bank, with a floating bridge. At *Musseib*, 70 miles farther down, is also a bridge of boats 160 yards long. *Hillah*, a large well-built town of 10,000 inhabitants, 440 miles below *Annah*, and 460 from the Persian gulf. About two-thirds of the town are on the right bank, the rest on the left, with a bridge of boats between them, 450 feet long, the depth of water being 18 feet at the lowest season. The bazaars are good, and well supplied with meat, fish, rice, and even luxuries; the city is regularly governed, in general quiet, peaceable, and well disposed towards strangers and Franks. It is surrounded with a good wall, and the governor's house is also fortified. Below *Hillah* are the towns of *Dewanijeh*, *Lemlun*, and *Sennaueh*, the last of which is celebrated for its cotton cloths, which are much esteemed throughout the East.

Hillah is situate within the precincts of *Babylon*, and built with bricks dug from its ruins. A few shapeless mounds are all that now remain of the *glory of the Chaldees' excellency*; the majority of which lie on the left, or east bank of the Euphrates, within five miles north of *Hillah*; but the most remarkable of all the ruins is on the west side of the river, five miles south of *Hillah*. This is an oblong hill surmounted by a tower, the circumference of its base measuring exactly 722 yards, and its height to the bottom of the tower 190 feet. The tower itself is a solid mass of the finest kiln-burnt brick-masonry, 35 feet in height, making the total height of the pile 225 feet. Two distinct stages of building are discernible along the sides of the hill; the tower forms apparently part of a third, above which there may have been others, decreasing gradually in their external dimensions so as to give the entire building a pyramidal form. The whole summit and sides are furrowed into deep hollows and channels, strewn with broken bricks, stamped with three, four, six, and seven lines of writing; stones, glass, tiles, large cakes of bitumen, and petrified and vitrified substances. Around it are several mounds and ruins; it is called the *Birs Nimrod*, and is believed by many to be the identical tower of *labeled*, afterwards converted into the temple of *Bel*, and destroyed by *Xerxes*, and which *Alexander* the Great attempted to restore. But Mr. Ainsworth supposes it to represent the *Borsippa* or *Birsatta* of the Greek and Latin geographers; while Mr. Rich, Major Kennel, and others, suppose the

tower of Babel and temple of Bel to be the ruin now called the Mujelibah, on the east bank of the river, ten miles from the Birs Nimrod.

At some distance west of the Euphrates, in the neighbourhood of Hillah, are situate three places of great historic and religious fame, watered by canals from the river. *Cufa*, *Kufa*, or *Koufa*, 20 miles S. of Hillah, from which the letters of the Arabic alphabet have got the name of Cufic, was enlarged, if not built by Omar, who made it the residence of the Khalifs; but after the building of Baghdad, it fell into decay. At present there remains little more than the mosque where the Khalif Ali was murdered, a plain building held in peculiar veneration. Ali's burial-place "was concealed from the tyrants of the house of Ommijah, but in the fourth age of the *hejrah*, a tomb, a temple, a city, arose near the ruins of Cufa. Many thousands of the Shiites repose in holy ground at the feet of the vicar of God; and the desert is vivified by the numerous visits of the Persians, who esteem their devotion not less meritorious than the pilgrimage of Mecca."—(*Gibbon*, c. l.) The city of *Meshid-Ali*, 5 or 6 miles W. from Cufa, is of the size and form of the modern Jerusalem. The tomb of Ali is within a handsome mosque in the centre of the city. All the tyrants of Persia down to Nadir Shah enriched it, says Gibbon, with the spoils of the people. The dome is of copper, with a bright and massy gilding, which glitters in the sun at the distance of many miles. *Meshid-Hussein*, about 20 miles N.W. of Hillah, is built on the spot where Hussein, the eldest son of Ali, and grandson of Mahomet, was killed by the emissaries of the Khalif Yezid, A.D. 680, in the plain of *Kerbela*. The town is larger and more populous than that of Meshid-Ali, and is principally supported by the influx of Persian pilgrims, who come here to worship at the shrine of the martyred Hussein; and whose bodies are brought in great numbers to be buried in so holy a spot. Meshid-Hussein was plundered of all its treasures by the Wahabees; and the relics of Meshid-Ali were carried off by the Pasha of Baghdad, to save them from the same fate, but were never returned. Below these places, the last town on the Euphrates is *Suk-el-Sheikh* (Lord's market), 70 miles above Kornah, on the south bank of the river, which contains about 70,000 inhabitants, most of whom live in huts without the walls, which enclose only a few brick houses. It was built above a century ago by the sheikh of the Monteige Arabs; is the great resort of Bedwins from all parts of the desert; and contains several wealthy merchants, who carry on a great trade.—(*Welstead*, I. 161.)

Descending the Tigris from the valley of Diyarbekr, the first place of importance is *Mosul*, a large, ancient, gloomy-looking town, in a state of visible decay. It stands on the west bank of the river, in lat. $36^{\circ} 20'$, long. $43^{\circ} 6'$, and contains about 35,000 inhabitants, with the remains of some fine buildings. It carries on some trade, has some unimportant manufactures, and gives name to the well-known article *muslin* (*mosuline*, cloth of Mosul). Exactly opposite, on the east side of the Tigris, is the village of *Nunia*, occupying a part of the site of the ancient *Nineveh*; the only remains are mounds of earth, like those of Babylon, which are nearly a mile in circumference, but neither so high nor so perfect. About a day's ride north of Mosul, is the monastery of *Rabban-Hormuzd*, belonging to the Chaldean Christians, and the residence of their metropolitan; and about a mile nearer the city is the village of *Al Kosh*, the reputed birth-place of the Prophet Nahum, and containing his tomb. *Erbil* or *Arbil* (*Arbela*), 50 miles E. of Mosul, gives its name to the last great battle fought by Alexander the Great with Darius King of Persia. The battle, however, was not fought here, but at *Gaugamela*, nearly midway between Erbil and Mosul. The inhabitants are Kurds and Turks. Erbil was once evidently a very large town, but is now in great decay. It is built on a round flat-topped hill, about 150 feet high, surrounded by a wall enclosing about 1000 houses; and there are about 500 more at the foot of the hill. *Altun-kupri* (Golden bridge), 26 miles S. of Erbil, is a small town on an island in the Little Zab river, which is crossed here by two bridges of brick-work; and 24 miles farther south is *Kerkuk* (*Kirkuk*, *Kirkook*), a large town of 15,000 or 20,000 inhabitants, built partly on a hill like that of Erbil, and partly on the plain below. About 80 miles east of Kerkuk, is *Sulimania* or *Soolimania*, or *Suleimaniyah*, the principal town of Turkish Kurdistan, situate in a sort of ravine, and containing about 2000 families of Moslems, 130 of Jews, 9 of Chaldean Christians, and 5 of Armenians; 6 khans, 5 baths, and 5 mosques. In winter the cold is sometimes intense, especially when strong easterly winds prevail; in summer, the east wind is hot and relaxing, blowing with prodigious violence sometimes for eight or ten days in succession. *Kshaf*, at the mouth of the great Zab. *Senn*, at the mouth of the little Zab. *Tekrit*, a ruined fort near the mouth of the Toak. *Dor*, *Samara*, *Kasmeen*, a resort of pilgrims, and *Baghdad*.

BAGHDAD stands on the Tigris in N. lat. $33^{\circ} 20'$, and E. long. $44^{\circ} 24'$. It is a large, but decayed city, surrounded by an ancient embattled brick wall, about 7 miles in circumference. The city is built entirely of brick, and contains no buildings of either elegance or importance. The larger portion stands on the left bank of the river, which is crossed by a bridge of boats, 670 feet long. The desert comes up to the very walls. Baghdad is the capital of an eyalet, which includes all the country from Merdin to Bussrah; it was founded by the Kaliph Mansoor-ill-Dewaniqi, in the 139th year of the Hejrah, or A.D. 766, and continued to be the residence of his successors till A.D. 1258, when it was taken, and the Kaliphate terminated, by Holagu, the son of Jengis Khan. It came finally into the possession of the Turks, in 1638; and was recently recovered by the Sultan from the dominion of an almost independent pasha. Three miles north of the city is the mosque of *Kasmeen* or *Kasmeen*, built over the remains of the eleventh of the twelve Imams (see p. 124), and forming one of the handsomest structures in Mesopotamia; and, just without the city wall, on a sloping eminence surrounded by an extensive cemetery, is the tomb of Zobeide, the well-known wife of the Caliph Haroun-al-Rashid. The climate of Baghdad is salubrious, but, in the strictest sense of the word, excessive; the summer's heat reaching 120° , and sometimes even 140° Fahrenheit; and the winter's cold being reduced very low by the breezes from the neighbouring mountains. The cold season continues from the middle of December to the middle of February, when the warm weather begins, and gradually increases to the scorching heat of summer. From April till October the inhabitants spend the day in their *verdubs*, or underground apartments, and the nights on the roofs of their houses.

About 20 miles below Baghdad are the ruins of two ancient cities, on the opposite banks of the Tigris. *Seleucia* (*Seleukia*), built by Seleucus Nicator, king of Syria, once contained 600,000 citizens, and engrossed all the commerce and the wealth of Babylon; but time, violence, and the inundations of the river, have levelled everything. Bricks, tiles, and pottery of every colour, stones, glass, shells, compose what now remains of the once magnificent city. On the opposite, or eastern, bank of the river, are the ruins of *Ctesiphon*, built by the Parthians, within three miles of Seleucia, in order to dispeople and impoverish it. It contains one magnificent monument in a perfect state of preservation; but without an emblem to throw any light upon its history; and with no proof or character to be traced on any brick or wall. This stupendous fragment, called *Tauk-Kesra*, is built of fine furnace-burnt bricks, and measures 300 feet along the front or eastern face. It is divided by a high semicircular arch (*tauk*) of 86 feet span, which rises to the height of 103 feet, and is supported by walls 16 feet thick. All round are fragments of walls and masses of brickwork, and vast structures enumbered with heaps of earth. On account of the vicinity of these two cities, the Arabs gave them the common name of *Al Modain* (the two cities.) Ctesiphon was taken and sacked by the Arabs in A.D. 637, and the plunder obtained was immense. This event was followed by its desertion and gradual decay, and the building of Baghdad finally reduced both of these cities to insignificance.

Kornah (*Koorna*, *Kurnah*, *Corneh*), the *Apamea* of the Syrian Greeks, stands on the point of land formed by the confluence of the two great rivers. It is now an insignificant place; but extensive

ruins attest its former importance. On the west bank of the Shat-el-Arab, 48 miles below Kornah, and 86 from the sea, stands BUSSRAH (*Bussōrah, Basra, Busrah, Bozra, Balsōra, Bassōrah, Busrah*), a large commercial city. The position of the British factory, which is nearly in the centre of the town, has been determined to be in lat. $30^{\circ} 29' 30''$, long. $47^{\circ} 34' 15''$. The town is of an irregular oblong square form, surrounded by brick walls 8 or 9 miles in circumference, forming an effectual defence against the Arabs; but of the enclosed space not more than a fourth is occupied by houses, the rest being partly filled by ruins, or partly laid out in corn fields, rice grounds, date groves, and gardens. The walls and most of the houses are built of sun-dried bricks. The population has varied, at different times, from 500,000 to 50,000, of whom about one-half are Arabs, one-fourth Persians, and the other fourth a mixture of Turks, Armenians, Indians, Jews, Catholic Christians, and a few Kurds and Europeans. The situation is so highly favourable for trade, that in spite of every obstacle occasioned by a bad government, and an unsafe passage by land or water, it continues to enjoy a commerce sufficient to enrich many by its profits, and to furnish the means of subsistence to its large population. The ruins of the more ancient *Ealsora* are at the distance of 8 miles from the modern city. The country immediately surrounding the city is a desert, with a horizon as level as the sea, and is covered with water for six months in the year. The climate is excessively hot from April till October, but the heat seldom rises above 110° Fahrenheit. On the east bank of the Shat-el-Arab, and on the north side of the Hafar canal, below Bussrah, is *Mohammērah* or *Mohanra*, a small place, where the steam-vessels occasionally stop.

ARABIA.

ASTRONOMICAL POSITION.—Between 12° and 36° N. lat., and 32° and 60° E. long.

BOUNDARIES.—*South-western* :—The Red Sea. *South-eastern and Eastern* :—The Arabian Sea. *North-eastern* :—The Persian Gulf and the river Euphrates. *North-western* :—Syria and Palestine, where, however, the boundaries are not precisely defined.

DIMENSIONS.—From the Isthmus of Suez, in the north-west, to Cape Ras-al-Had in the south-east, Arabia measures 1650 miles; from Suez to the Straits of Bab-el-Mandeb, 1300; from Bab-el-Mandeb to Ras-al-Had, 1250; from Bab-el-Mandeb to Racca, on the Euphrates, 1940; and from Gaza, on the Mediterranean, to the mouth of the Shat-el-Arab, 840. The superficial area is computed at about 834,400 square English miles.

Beled-el-Arab (Arab land), and *Jezirat-el-Arab* (Arab island or peninsula) are the usual native names of the country. The Persians and Turks call it *Arabistan*. The singular word *Arab* is used as a collective noun, to designate the people; but its etymology and meaning are uncertain.

GENERAL ASPECT.—Arabia is a large peninsula, having the greater part of its boundaries washed by the sea and the Euphrates, and occupies the south-western corner of Asia. It appears to be an immense pile of naked mountains and table-lands, encircled by a belt of flat, dry, sandy ground, along the sea coasts.

The north-western portions are mountainous; the triangular peninsula formed by the fork of the Red Sea is very rugged. The ridge of Anti-Libanus, or at least a continuation of it, after skirting the Dead Sea and the Ghor, runs along the coast parallel to the Red Sea, at a distance of from 30 to 80 miles, and sometimes approaches closely to the shore. It increases in elevation as it extends southwards, and appears to be continued in a line parallel to the shore of the Indian Ocean as far as Oman. These mountains diverge into the interior in ridges, which increase in elevation as they recede from the sea; in clear weather they are visible for 60 or 70 miles, and the distant peaks have a rugged pointed outline. Between their bases and the shore extends a lowland border of varying width, called by the Arabs the *tehamah*, which is generally desert and barren, but is cultivated in a few spots. The country to the east and the north of the mountains is higher than the low country along the coast, by so much as two thirds of the height of the mountains, and appears to form an immense table-land or series of elevated deserts, sloping generally towards the Persian Gulf and the Euphrates. No part of Arabia contains rivers or large streams, in the proper sense of the word; though the coast lands are intersected by numerous ravines, called *wadies*, which contain torrents during the rainy season. The dryness of the atmosphere is so great, that it sometimes does not rain for several years in succession. It is only, therefore, those lands which are situate at the foot of hills, and can be watered artificially, that are susceptible of cultivation; and without the help of the wady-torrents, which are intercepted by dams, collected in ponds, and turned from their course upon the land, scarcely any crops could be raised. The peninsula, however, contains many well-watered spots, and wells are interspersed throughout the deserts in numerous oases.

CLIMATE.—Arabia partakes of the climate of northern Africa. The mountains of Yemen are moistened by regular showers from the middle of June till the end of September; but even then the sky is seldom overcast for 24 hours together, and during the rest of the year not a cloud is to be seen. In Oman the rainy season begins in November, and continues till February; but along the south coast it begins in February, and lasts till the middle of April. The air is everywhere generally dry, and always hot; the average temperature of the year is reckoned at 85° Fahrenheit; but during summer, particularly in the low country along the Red Sea, the heat is intense, the thermometer at Mocha rising to 98° . In the hill country of Saana, north-east of Mocha, frost is sometimes, though rarely, felt; and falls of snow take place in the interior, which, however, never lies long. The nature of the winds differs according to the tract they have passed over, so that the same wind is in different places moist or dry. The winds which blow from the deserts are naturally of the latter kind; but it is only in the northern part of the peninsula, in the deserts between the Euphrates and Syria and Mecca, that the much-dreaded *Simoom* or *Samiel*, is felt; and even that blows only during the intense summer heats. The Arabs are said to perceive its approach by its sulphureous odour, and by an unusual redness in the direction from which it comes. The only means of escaping from one of these poisonous blasts is to lie flat on the ground till it has passed over; and even the animals instinctively bow their heads, and bury their noses in the ground. The effects of the simoom on those who face it are instant suffocation, and the immediate putrefaction of the body, which is observed to be greatly swollen. In the driest tracts, near the sea, the dews are singularly copious; but the natives nevertheless sleep in the open air; and Niebuhr says that he never slept more soundly than where he found his bed all wet with dew in the morning. At night the stars shine forth with a brilliancy unknown in other regions. In the desert the cold of the night is in proportion to the heat of the day; fevers, notwithstanding, appear to be unknown; and the Bedwin who sleeps in the sand receives additional vigour and vivacity from the purity of the air which he breathes in his slumbers.

GULFS, BAYS, STRAITS.—The *Arabian Gulf* or *Red Sea* is a great inlet of the Indian Ocean, extending in a north-westerly direction between Arabia and Africa, through 18° of latitude, or from $12^{\circ} 30'$ to $30^{\circ} 10'$ N., a distance of 1,400 miles, with a breadth varying from 200 to 120, where undivided. Its northern portion is divided into two smaller gulfs, those of *Suez* and *Akaba*, which are very considerably narrower than the main sea. The Gulf of Suez extends about 200 miles in length, with a breadth varying from 10 miles to 40; the gulf of Akaba is about 100 miles long, but only $7\frac{1}{2}$ wide at its entrance, and has the appearance of a narrow deep ravine, along which the hills rise in some places perpendicularly at the distance of 200 feet from the water. It is exceedingly stormy and dangerous.

The Red Sea is full of coral reefs; and with the exception of occasional gaps, through which there are navigable channels, a continued line of these runs parallel to the shore along the whole Arabian side of the gulf. The average width, however, of the clear sea is 100 miles, and the depth almost unfathomable; and within this clear space it may be navigated at all seasons, without impediment from the reefs; only one of which, that of the *Dedalus*, is found within the whole extent. The monsoons, which blow periodically in the Indian Ocean, do not extend to the Red Sea; the wind, however, blows with equal violence from opposite quarters at the two extremities, leaving a considerable space which is subject to light breezes and calms. North-westerly winds prevail throughout the year, in the northern part of the sea; but, during June, July, and August, they attain their greatest strength, occasionally blowing home through the Straits of Bah-el-mandel, to the very limits of the south-west monsoon, and driving the water before them to such an extent, that reefs which are usually covered appear three or four feet above the surface. The duration, however, of such gales, rarely exceeds three or four days, and is usually succeeded by light breezes. In the southern portion southerly winds prevail for nine months of the year; in October, November, and December, they not unfrequently blow home to Suez, also raising the water perceptibly in that direction; but on ordinary occasions, their violence is not perceptible for more than 150 miles above Mokha. The temperature of the atmosphere, compared with that of the Persian gulf, is moderate. The north-west winds are cool and refreshing; but those from the south are damp, sultry, and unwholesome. During the prevalence of the latter in September and October, the humidity of the atmosphere is very great in the warmest days, and the heavy dew at night is particularly disagreeable. In the upper portion of the sea, during the prevalence of northerly breezes, the atmosphere is of uncommon purity, and every object can be perceived the moment it rises above the horizon. In the daytime a cloudless sky throws its deep blue tinge over the sea, which is more clear and pellucid than the tideless Mediterranean, except when the surface is agitated by the tempests which so frequently sweep over it, and raise its waters into snowy-erected waves. The nights are equally pure and clear, and though the coast of Hedjaz is said to be unhealthy, it is not found to be so at sea. The Red Sea communicates with the ocean by the Straits called *Bab-el-mundeb* (Gate of tears), which measure, between the opposite shores, 11½ geographical, or nearly 17 English statute miles across; they are divided by the island of Perim into two portions, of which the eastern is little more than 2 miles wide, and the western, 13. The soundings in the smaller strait vary from 8 to 14 fathoms; but in the middle of the other no bottom can be found with 120 fathoms. This larger strait is, however, divided by the *Jezirol-us-Sahab* or *the Brothers*, a cluster of rocky islets, extending 6 miles east and west, 10 miles south of the most southerly point of Perim. The strait is formed on the Arabian side by *Ras Bab-el-mundeb*, a prominent cape, visible from a ship's deck on a clear day at the distance of 35 miles; its highest peak, *Jebel Manhal*, rises 860 feet, and stands in lat. 12° 41' 10" N., long. 43° 32' 14" E. On the African shore *Ras Sejan*, a gloomy-looking peak 380 feet high, projects northward from the coast, with which it is connected by a swampy piece of lowland 700 yards wide. (*Journal R. Geog. Soc. Lond.* IX. 127.)

Beyond the Strait is the *Gulf of Arabia*, more commonly called the *Gulf of Aden* or the *Gulf of Bab-el-mundeb*, which extends east and west nearly 600 miles, with an almost uniform breadth of about 200. On the south coast of Arabia is the large open bay of *Curia-maria* or *Koorya-moorya*, with good soundings throughout. The *Gulf of Oman*, formerly called the *Gulf of Ormus*, extends 320 miles from S.E. to N.W., between Arabia and Persia, with a breadth varying from 200 miles at its eastern extremity, to 50 or 60 where it meets the *Persian Gulf*. The latter is a large gulf which penetrates 600 miles into the continent in a north-westerly direction from the Strait of Ormus, with a breadth varying from 230 miles to 130. Along the Arabian shore a great pearl bank extends from *Shurja*, 47 miles S.W. by W. of *Ras-el-Khaimah*, to *Biddulph's Group*, 100 miles N.N.W. up the gulf, with a breadth of 150 miles. The bottom consists of shelly sand and broken coral, and the depth of water varies from 5 fathoms to 15. The right of fishing for pearls is common to all; the fishery continues from June to September; during the rest of the year the weather is too cold. During the season, every person who can procure a boat, or a share in one, is employed. The boats are of various sizes and forms, averaging from 10 to 50 tons; Bahrein is computed to furnish of all sizes 3500; the Persian coast, 100; and the coast between Bahrein and the entrance of the gulf, 700. The annual value of the pearls obtained is estimated at £100,000 sterling; and the number of people employed is about 30,000. The heat of the atmosphere in the Persian Gulf is not surpassed by that of any other place in the world; the nights being short, neither land nor sea has time to cool; even the heat of the sun when on the horizon is sufficiently great to be disagreeable; the sailors say it rises red hot. From sunrise till about an hour before noon, when the sea-breeze sets in, the heat is almost intolerable. (*Wellstead*.) The Persian Gulf receives at its northern extremity the waters of the great rivers Euphrates, Tigris, Jerahi, and others.

CAPES.—*Ras Mohammed*, a low promontory, forms the southern extremity of the triangular peninsula of Mount Sinai. *Ras Bab-el-mundeb*, the south-western point of Arabia. *Ras-al-hud* (Flat Cape), a sandy point at the south-eastern extremity of Arabia. *Ras Musendun*, an insulated rocky point at the entrance of the Persian Gulf, is separated from the mainland by a very deep channel not more than 400 yards wide. *Ras Recran*, the most northern point of a peninsula which projects about 100 miles into the Persian Gulf, on its south side.

ISLANDS.—In the Red Sea are: *Graa* or *Jezirol Pharoun*, named also by the Arabs *Kalut-el-dier*, is a small islet at the head or northern extremity of the Gulf of Akaba, consisting of two rounded hillocks joined by a flat isthmus, the whole being encompassed by a massive wall, with square towers at the angles. The island was noted in the wars of the crusaders. (*Wellstead, Laborde*.) *Tehran* or *Tiran*, a hilly island with a high peak, is destitute of water, and inhabited only by a few fishermen. It was anciently sacred to Isis, and is one of a group which lies opposite the mouth of the Gulf of Akaba. *Jebel Teir*, a pyramidal islet, 6 miles in circumference, is 1300 feet high, and inhabited by a few fishermen. N. lat. 15½°. *Jebel Zigger* (the isle of prayer), sterile and uninhabited rocks of volcanic formation. *Sabaquien Islands*, fourteen barren rocks, pyramidal and volcanic, to the south of *Jebel Teir*. *Sughair* and *Harnish*, two large islands in a group called the *Arrow Islands*, 14 N. lat. *Perim* or *Meyan*, a small rocky island which divides the strait of Bah-el-mandeb. *Camaran* or *Kamaran*, a large island near the coast, south of Lohia, which is used as a depot for coals to supply the steam-vessels. *Abdul-Kudir* or *Palinurus Shoal*, a dangerous patch, discovered by the H.E.I.C.'s ship *Palinurus*, in 1835, 8½ miles off shore, 11° 54' 50" N. lat., 50° 45' 20" E. long. E. by N. of Makulla.

Bahrein, *Bahrein*, or *Arak*, a large island in the middle of a bay on the southern shore of the Persian Gulf, measures 27½ miles long, and 10 broad; the middle of its breadth is occupied by a range of hills, but its shores are very low, and surrounded with shoals, most of which are dry at low water. It is very fertile, and covered with plantations of date trees; it has also numerous springs of excellent water in the interior, but none near enough the harbour to be available for shipping, which are supplied from the bottom of the sea, 18 feet deep, where there is a spring of good fresh water. The chief town, named *Manama*, is a large and populous place at the northern end of the island, in 26° 14' N. lat., 50° 36' E. long., with about 40,000 inhabitants. The houses are well-built, and the town altogether is more respectable than any other in the Persian Gulf. The bazaar is well supplied with fine cattle, sheep, poultry, fish, and vegetables; an extensive trade is carried on with all the tribes along the

coast, in which upwards of 140 vessels are employed. But the principal source of its prosperity is the pearl fishery. The harbour is formed on the east side by the island of *Arad*, which is very low, and is nearly divided by the sea at high water, though the tide rises only seven feet. It contains the town of *Maharag*, about a mile east of Manama, but not nearly so populous. On the west side of Bahrein, is another small island, named *Jebel Hussein*, which is low and uninhabited. The group is surrounded by shoals and flats, one of which, named *Teigmouth Shoal*, extends 15 miles to the northward, with a breadth of 14 miles, and is in many parts dry at low water. The bay which contains these islands, extends 70 miles inland, between Ras Reecan and Ras Tanhora, but is so completely filled with shoals as to be quite unnavigable for ships of burden.

MINERALS, VEGETABLE PRODUCTIONS, AND ANIMALS.—According to Niebuhr, Arabia contains no mines of gold or silver, though the latter metal is found in small quantities among the lead of Oman. Iron mines exist in the north of Yemen. Rock salt is wrought near Lohcia, and several other places; the beds of the Red Sea and the Persian Gulf abound with coral, and on the southern shore of the latter is the great pearl bank of Bahrein. The country is rich in indigenous trees, as the Indian fig tree, the date tree, which produces the staple article of food to the desert tribes; the cocoa palm, the fan palm, and other sorts of palms and fig trees; the cornel tree, the plantain or banana, the almond, the apricot, the pear, the apple, the quince, the orange, the acacia, which produces gum-arabic, the mangostan, the papaya, the sensitive plant and other mimosas, the balsam tree, and the tamarind. There is, however, in the country, little timber fit for building, the wood being mostly of a light porous texture. Among the shrubs may be mentioned the coffee-plant, the indigo shrub, the castor-oil plant, the semma, aloe, styrax, sesamum, cotton, sugar-cane, betel, nutmeg, all sorts of melons and pumpkins, the *wars*, which yields a yellow dye, the *fouar*, which supplies a red dye, and a great variety of leguminous plants, pot-herbs, and officinal herbs. Among the odoriferous plants are lavender, marjoram, the white lily, the globe amaranth, the sea dafodil, various kinds of pinks, and other plants. Wheat, turkey-corn, and dhourra, abound in the plains of Yemen and other fertile districts; also barley, with which the Arabs feed their horses, and beans, which serve as food for their asses. Manna, answering precisely to the description given by Moses of the food of the Israelites, is produced abundantly from a little thorny shrub, in all the deserts. Arabia is distinguished for her breed of horses, the character of which is, that they are spirited, active, and of the most generous temper. Perhaps, it has been said, the genuine Arabian steed is the most compact piece of powerful and efficient mechanism in the brute creation; but the horses are generally of small size, and in no way remarkable for beauty. The Arabs pay the utmost attention to the genealogy and education of this faithful friend, which indeed is brought up as one of the family; the colts live in the tents among the children, and are treated with a familiarity and tenderness which produce gentleness and attachment. They are accustomed, says Gibbon, only to walk and to gallop; their sensations are not blunted by the incessant abuse of the spur and the whip; their powers are reserved for the moments of flight and pursuit; but no sooner do they feel the touch of the hand or the stirrup, than they dart away with the swiftness of the wind; and, if their friend be dismounted in the rapid career, they instantly stop till he has recovered his seat. There are two distinct breeds of horses: the one called *kadishi* (of unknown descent), is in no higher estimation than the common horses of Europe, and is employed to carry loads, or for draught; the other breed, called *koheli* or *kohlani* (of ancient and noble pedigree), is reserved for riding only. The best horses are bred in the Syrian deserts; they are valued more for their attachment and their amazing speed, than for their beauty. And yet the horses of Abdallah, the chief of the Wahabees, which were captured by the Turks, along with their master, and could not have been purchased at any price, are said to have had eyes and bones like those of the gazelle, the latter indeed delicate, but firm as steel. Nothing can be compared to the beauty and the gracefulness of all their motions, and none of the Turkish horses at all approach them in agility and swiftness. Horses, however, are not very numerous; the comparative scarcity of vegetable substances for their food is an insurmountable obstacle to the extensive breeding and rearing of this animal; and in some places there are many encampments without a single horse. The tribes richest in horses are those on the borders of Syria and Mesopotamia; while, on the contrary, the tribes in the southern parts of the peninsula have very few. Like their masters, the Arab horses live all the year in the open air. Next to the horse in importance is the camel, the faithful slave of the Arabs, which serves them as a beast of burden across their deserts, while its milk supplies them with the most nourishing part of their food, its hair with coverings for their tents, and its flesh with a dainty morsel on their holidays. The camels of Arabia are of the one-humped species; those of them that were trained for riding were denominated by the Greeks, from whom we have borrowed the term, dromedaries (racers), some of which are exceedingly swift; the modern dromedaries seem to be a peculiar variety of the species, generally of a lighter form than the beast of burden. The other animals found in Arabia are asses, some of which are large, and so spirited, that it has become a proverb to say of a person of great vivacity that he is as brisk as an ass. Oxen and cows with a hump, rock goats, gazelles, sheep with broad thick tails, hyenas, panthers, ounces, jackals, wolves, foxes, wild bears, hares, jerboas, and monkeys. Among the birds are eagles, falcons, sparrow-hawks, vultures, ostriches, lapwings, thrushes, pheasants, guinea-fowl, pigeons, partridges, larks, quails, plovers, and storks. Domestic poultry are very plentiful in all the fertile districts. Pelicans and other sea fowls are numerous on the coasts, which all abound with fish. There are also various kinds of serpents, lizards, and ants; and the formidable locusts are produced in myriads in the deserts. These last the Arabs dry, and roast or boil them for food; and Niebuhr states that in his time they were strung on thrads, and offered for sale in the markets of all the Arab towns, from Bah-el-mandeb to Bussrah. The practice is still continued; the mokin or red species is the fattest, and, when fried and sprinkled with salt, is considered a wholesome and nutritious food.

PEOPLE.—The Arabs are of the Caucasian, or white race of mankind, and speak various dialects of the Semitic language, which are all classed under the general name of Arabic. Their language is celebrated for its beauty and extraordinary copiousness. The people are Mahometans of the Soomee sect, excepting perhaps a few remaining Wahabees; and are all divided into the three classes of Bedwins,* husbandmen, and citizens. The modes of life of the two latter classes are not essentially different from those of people of the same classes in other countries; it is principally the Bedwins that exhibit the peculiarities of the Arab character. The stationary Arabs are somewhat above the average stature; they are robust and well formed; their skin is sun-burnt and brown, but elastic; their face is oval and copper coloured; their forehead high and broad; the eyebrows black and bushy; the eyes black, deep-seated, and quick; the nose straight, and of medium size; the mouth well defined; the teeth well set, beautiful, and white as ivory; the ear beautifully formed, and of the normal size, slightly curved forwards. In the women, the graceful outline of the limbs is especially admirable; and also the regular proportions of the hands and feet, and the elegance of their

* This word is usually spelled *Bedouins*; but as that is the French form, we have preferred the English *Bedwin*, which is nearly the same in sound, though different in spelling. The term is the corruption of the Arabic *badui*, which means an inhabitant of the desert, and is derived from the noun *badu*, an open country, a desert.

attitudes, steps, &c. The Bedwins are generally divided into tribes, which are scattered upon the confines of the cultivated regions, and along the edges or on the islands of the deserts; they live under tents, which they transport from place to place. They have generally a very strong resemblance to the settled Arabs; but their eyes are more sparkling, their features less distinct, and their stature somewhat inferior. They are also more agile; and, though slightly built, they are very strong; have lively imaginations; are haughty and independent in character; and are suspicious, dissembling, and restless, but brave and intrepid. They most religiously observe the rights of hospitality; and are especially remarkable for their profound address, and for their great intelligence. They are regarded as excellent horsemen; and they boast, not without reason, of their skill in the use of the lance and the javelin. They are also very skilful as tradesmen and artisans. The manners and customs of both classes are, however, in most respects very nearly the same. They rear sheep, camels, and horses; all speak dialects of the same language, and profess the same religion, Islam. Their mode of living is nearly the same; their food consists principally of milk, eggs, and vegetables; they eat but seldom, and consume little flesh; and in general they are very sober and temperate in drinking; and easily support all kinds of privation. The men all shave the head and allow the beard to grow; the women allow the hair to grow, and often colour it and their eyebrows with paint more or less of a deep brown, which strengthens the hair and imparts to it a beautiful black hue. They also dye with a liquor of a golden yellow colour, procured from the henna plant, the edges of the feet and hands, reaching to the points of the toes and fingers. These parts, and also the faces of the youth of the higher classes, are protected from the disfiguring effects of the small pox by means of gold leaf, which is applied at the invasion of the malady. (*Remarks on the Physical Constitution of the Arabians. By M. Larrey. Edin. New Phil. Journal XXV. 318.*) The life of a Bedwin is one continued round of idleness or amusement. When no pastime calls him abroad, he loiters in his tent, smokes his pipe, or stretches himself under the shade of a tree. He has no relish for domestic pleasures, and seldom converses with his wife and children; he values nothing so much as his horse, which he makes use of in hunting and plundering expeditions, to which the race have been addicted in all ages. The Bedwins are divided into numerous tribes, which have constant feuds with each other; and, even when they are at peace with their neighbours, they cannot rest at home, but make incursions upon distant tribes, and upon all the more civilized people who possess anything to tempt their cupidity. They are, in short, the children of nature, and exhibit a strange combination of virtues and vices. They are certainly now very much improved from their ancient condition, such as it is described in Antaq, and which is very well exhibited in the speech of the Arab ambassadors sent to Yezdegird, the last Sassanian king of Persia, to require his submission to their prophet. "Their food was green lizards; they buried their infant daughters alive; nay, some of them feasted on dead carcases and drank blood; while others slew their relations, and thought themselves great and valiant, when by such an act they became possessed of more property; they were clothed with hair garments, knew not good from evil, and made no distinction between what is lawful and what is unlawful." From this state they were raised by the religion of Mahomet; and whatever improvement their manners and customs have undergone must in fairness be ascribed to the new impulse given to their minds by that fanaticism wherewith he inspired them; to the union which he and his successors established among them, by giving them a common religion; and to the continued influence of that religion, which is pure in comparison with the idolatry by which the whole country was polluted before his time. The Arabs have been distinguished in all ages for their national independence; they have never formed part of any of the great empires; their country has never been overrun by any of those migratory hordes of Scythians, Turks, and Tartars, who have at different periods invaded and overspread all the other southern countries of Asia, overturning the existing governments, and founding new dynasties. This independence is easily accounted for; the Arabian deserts cannot easily be crossed by large bodies of men, and they contain nothing to tempt an invader. All that Arabia possesses to allure the cupidity of conquerors is to be found only in Yemen, and this province, accordingly, has been conquered and possessed by foreigners, who made their approach by the Red Sea. It is only the desert, therefore, that has maintained the much-vaunted independence of Arabia; and there everything contributes to preserve the natives from subjection. The Arabs are likewise famed for their hospitality to strangers; their generosity has also been much praised, as well as their fidelity; but they are, in fact, a nation of robbers; and late travellers, who have studied their character, declare that all the tribes, with very rare exceptions, regulate their fidelity only by their interests. They are all addicted to war, bloodshed, and cruelty, and never forget or forgive an injury. The houses in Arab towns, even when built of stone, are entirely destitute of taste; the men's apartments are in front, those of the women behind. Even the Bedwin divides his tent into two apartments by a curtain, behind which the women are concealed. In respect of personal cleanliness, they are said to observe the precepts of their religion with the most rigorous exactness. Their dress is loose, long, and flowing, wrapt round them and girded with a sash; some, however, go almost naked in hot weather, others wear drawers and slippers, but no stockings. In some parts the women wear large veils, with rings, bracelets, and necklaces, have their nails stained red, their feet and hands of a yellowish brown with an herb called *henna*, their eye-lashes darkened with antimony, and use every art to make the eyebrows large and black.

Some of the Arabs boast of their descent from Ishmael the son of Abraham; they are not, however, all Ishmaelites. According to their own traditions they are sprung from two stocks, *Kahtan* or *Joktan*, the son of Heber, of the family of Shem, and *Adnan*, the lineal descendant of Ishmael. The posterity of the former they call pure Arabs, that of the latter, mixed Arabs. The Kahtanians settled in the east and south of the peninsula, while the Ishmaelites seem to have taken possession of the north-west, along the borders of Egypt, Palestine, and Syria. Their early history is very obscure: it was only after the time of Mahomet that they acquired what may be called an historical character; for, under his successors in the civil and ecclesiastical sovereignty which he founded, the Arabs burst from their deserts like a torrent, and made themselves masters of Syria, Assyria, Persia, Egypt, North Africa, and Spain. Their sovereigns, who took the title of caliph or khalif, transferred the seat of government to Damascus, and Kufa, and latterly to Baghdad on the Tigris; and the Arabs, who followed their chief into the cities and fertile countries subject to his dominion, became a very polished people, and carried the pursuits of literature and philosophy to a high degree of excellence, while Europe was buried in the darkness of the middle ages. As the caliphate declined, the natives of the peninsula relapsed into their former state of wild independence, in which they continue at the present day.

GOVERNMENT AND PRODUCTIVE INDUSTRY.—The nature of the country keeps the Arabs divided into petty tribes, and nowhere admits of large bodies being consolidated into powerful states, and thereby acquiring a supremacy over the whole nation, and founding such a monarchical despotism as has always prevailed in the more fertile and populous countries of Asia. The Arab governments are accordingly of the simplest kind, and their princes have very limited powers. The prevailing principle of their government is patriarchal, where the hereditary chief of the tribe is the real or reputed descendant of their common ancestor. The chiefs, who are called *Sheikhs*, and the more powerful of them, *Emirs*, lead the tribe to war, administer justice, and decree peace and war, but seldom without the advice of the elders of the tribe. The *Sheikhs*, however, though the princes of in-

dependent communities, are in no respect to be compared with the European kings; for their whole mode of life is distinguished by the utmost simplicity, and they live on the most familiar terms with all their subjects. From the principle inherent in the nature of man to abuse the power with which he is invested, some of these sheikhs occasionally conduct themselves very despotically; but in such cases their impatient subjects make no scruple to depose them, and elect others in their stead; a practice which operates as a salutary check upon their despotic inclinations. The governments of the desert tribes are all of this description; but, among the settled inhabitants of the cultivated districts, very despotic princes are to be found; those of the north-west, and along the coasts of the Red Sea, have been subjected to the vigorous and despot's rule of the Pasha of Egypt and his deputies; and the Arabs in Mesopotamia and Syria also acknowledge the sovereignty of the Sultan and his pashas, but pay very little obedience to their orders when they attempt to command. There is scarcely any such thing as manufacturing industry, excepting only the commonest articles and fabrics for home consumption. But in agriculture the settled Arabs are very industrious, particularly in turning to account the scanty streams of water. In Yemen, the contrivances for this purpose are elaborate and extensive. Terraces are formed, and dams to retain the water, which is also raised from wells to irrigate the fields. In harvest the crop is pulled up by the roots, and the hay is cut down with a sickle. The commerce of the country, though much less than it was before the discovery of the passage to India by the Cape of Good Hope, is still somewhat considerable, and is carried on chiefly by the caravans which yearly arrive at Mecca from all parts of the Mahometan world. The articles of necessary use are furnished by India, those of luxury by Europe, and military arms by Persia and Ottoman Asia. The principal exports are coffee, the most important of all; pearls, dried dates, skins, horses, senna leaves, indigo, gums of various kinds, the produce of Arabia; besides benzoin, incense, and myrrh, which are brought from Africa, though they pass in commerce for the productions of Arabia. The principal articles of import, besides the three already mentioned, are stuffs, sugar, and other produce of India, steel, iron, cannons, lead, tin, cochineal, cloth, false pearls, arms, and many other productions of European industry and skill.

The well-known division of Arabia, made by the Greek and Roman geographers, was into three parts: *Petrea*,* *Felix* or *Eudaimon*, (*the Happy*), and *Deserta* (*Desert*.) *Petrea* comprised the region between Judaea and the Red Sea, and was so called from its chief town Petra, the capital of the Nabatheans. The Happy, or fortunate Arabia, comprised the south-western regions, and appears to have been so called on account of its producing, or being supposed to produce the so much coveted drugs and spices of the East. The Desert Arabia comprised all the central, eastern, and northern parts of the peninsula. But these distinctions were never known to the Arabs themselves; nor are the native writers agreed as to the proper divisions of their country; in fact, as Arabia never formed one kingdom, the division into provinces is unknown, and the boundaries of the possessions of tribes being always fluctuating, and never at any time well defined, they cannot be assumed as civil divisions. Geographers are accordingly very much at a loss to know how to divide Arabia. No two of them are agreed as to the number or the names of the provinces; but as it appears that the Arabs do attach certain names to certain ill-defined portions of their country, we shall consider it as so divided, according to the best information we can obtain. The divisions are, 1. *HEJAZ*, comprising the Petrean Arabia, and all the east coast of the Red Sea to the frontiers of Yemen. It thus includes the *Beled-el-Haram*, or Holy Land of Arabia. 2. *YEMEN*, comprising the south-west parts of the peninsula, including *Tehama*, or the low country on the Red Sea, and *Hadramaut*; or in other words, the whole of the low country along the Red Sea and the ocean, to the south of the 19th or 20th parallels of latitude. It comprises the Imamate of *Sanaa* or Yemen proper; the state of *Abou-Arish*, between Mecca and Yemen; the countries of *Kobail* or *Hashid-el-Bekir*, between Sanaa and Nedjed, inhabited by several warlike tribes, who form a kind of confederation, and furnish mercenary soldiers; the country of *Aden*, at the south-west extremity of the peninsula; and *Hadramaut*, which extends along the ocean to the east of Sanaa. 3. *OMAN* comprises the eastern angle of the peninsula, but its inland districts are very little known. 4. *LACHSA* or *Hesse*, extends to the north-west of Oman, along the south coast of the Persian Gulf, nearly as far as the Euphrates, and is divided into several small states; the population on the coast live principally by fishing and piracy. It includes also *Bahrein*, a group of islands in a bay of the Persian Gulf, celebrated as the chief seat of the pearl fishery. 5. *THE BARRIA* or *BAR-ABAD*, the interior of Arabia, comprises two principal divisions: *Nedjed*, which includes all the inland deserts, from Yemen and Oman, in the south, to the head of the Persian Gulf and the Red Sea; and the *Syrian desert*, which extends from the Euphrates to the borders of Syria and Palestine.

§ Cities, Towns, and Remarkable Places.

MECCA (Mekka or Bekka), N. lat. $21^{\circ} 36'$, E. long. $40^{\circ} 20'$, is situate in the Holy Land of Arabia, in a barren valley, surrounded by mountains, two days journey from Jiddah on the Red Sea. It is celebrated as the birth-place of Mahomet, and the cradle of the Mussulman traditions. The Arabs believe that it was at Mecca that Adam and Eve, after their fall, obtained pardon of God. It was here, also, that Ishmael and his mother took refuge, after being driven from Abraham's house by the jealousy of Sarah, and founded the illustrious tribe of the Koreish, from which Mahomet was sprung. Abraham, they also allege, visited Ishmael several times at Mecca, and built the Kaaba, which has been ever since the object of religious veneration. Mecca may be styled a handsome town; its streets are generally broader than those of eastern cities; the houses are lofty, and built of stone; and the numerous windows which face the streets give them a lively and European aspect. The city is open on every side. No trees or gardens cheer the eye; and except four or five large houses belonging to the sheriff, two medreses or colleges, and the great mosque, with some buildings and schools attached to it, Mecca has no public buildings to boast of. Neither khans, nor palaces, nor mosques, which adorn other towns of the East, are here to be seen. The streets are unpaved, filled with dust in the dry season, and with mud during the rains. There are few cisterns for collecting rain, and the well-water is brackish; the best water is brought by a stone conduit from the vicinity of Arafat, six or seven hours distant. But Mecca possesses the *Betullah* (house of God), the grand centre of the Mahometan world, which forms an oblong square, nearly in the middle of the town, 250 paces long, by 200 broad, and surrounded by a covered colonnade. The centre is occupied by the *Kaaba* or holy house, an oblong massive structure of rough stone, 18 paces in length, 14 in breadth, and from 35 to 40 feet in height, and entirely rebuilt, as it now stands, in A.D. 1627, after it had been nearly reduced to ruins by a torrent. At the north-east corner is a black stone, which appears to be a piece of lava, or black basalt, fixed in the wall, and is devoutly kissed by every pilgrim. The four sides of the Kaaba are covered with a black silk cloth which hangs down, and leaves the roof bare. This

* A vulgar error was long prevalent with respect to this word, which was supposed to be the common Greek word *petraia* (stony), and the province was accordingly supposed to have been so called on account of its very rugged, rocky, or stony nature. But in this respect it is not more stony than many other parts of the peninsula, and, historically considered, there is no reason to doubt the correct derivation of the word to be from *Petra*, the proper name of the city.

curtain or veil, called *kesoua*, is renewed annually at the time of the hadje, being brought from Cairo, where it is wrought at the expense of the Ottoman Sultan. Within the square is also the well *Zemzem*, and several other holy spots. The Meccawys are an idle and dissolute race, who, with great professions of sanctity, openly set at defiance all the moral precepts of their religion. Many of them even neglect its very forms, and, like the Bedwins, never pray at all, thinking it quite sufficient to ensure salvation that they have been born at Mecca. Their principal support is derived from the pilgrims, to whom they let their houses, and whom they supply with necessaries. Their number at one time amounted to so many as 100,000; but, after the invasion of the Wahabees, it was reduced to about 18,000. It is probably now very considerably increased. Mahomet having enjoined upon his followers that they should visit Mecca at least once in their lives, a great concourse of pilgrims takes place every year in this holy city, and, notwithstanding the decrease of religious zeal, and the increased expense of the journey, so many as 120,000 attended the hadje or festival in November 1831. — (*Lieut. Wellstead, Journal R. Geog. Soc. Lond.*, V. I. 89.) After the downfall of the Caliphate, Mecca became an independent state under its own sovereign called Sheriff, but it is now a dependency of Turkey. In the neighbourhood are several holy places, which are visited by the pilgrims; as *Mount Arafat*, six hours' journey on foot east the valley of *Mina*, and the mountain of *Hira*, which contains the cave to which Mahomet was accustomed to retire for meditation on heavenly things, and where he reported that the angel Gabriel appeared to him for the first time. *Jiddah*, the port of Mecca, 55 miles west on the Red Sea, $21^{\circ} 28' 30''$ N. lat., is a well-built town, on a slope which rises gradually from the sea, surrounded with a wall 3000 paces in circuit, but in the midst of a desert; there being within the town no gardens or vegetation of any kind, excepting a few date-trees near one of the mosques; and, even on the outside of the town, the whole country is a barren desert, covered on the sea-shore with a saline earth, and higher up with sand. The people are almost exclusively foreigners, and are engaged in commerce. Their number has been variously estimated at from 5000 to 40,000. The streets are airy, the houses lofty, and well built of coral. About 70 miles east of Mecca is *Tauf* or *Taief*, a small town in the midst of a sandy plain, surrounded by hills, which is supplied with water from two copious wells, and celebrated all over Arabia for its beautiful gardens.

MEDINA, about 250 miles N. by W. of Mecca, situate in a low plain close to the mountains which run parallel with the Red Sea, is a small town surrounded by a good wall, which has always made it be considered as the principal fortress of the Hedjaz. It was formerly called *Yathreb*, and received its present name of *Medinat-al-nebi* (prophet's-town), from the circumstance of its having become the residence of Mahomet after his flight from Mecca, and of his burial. Without the town are extensive suburbs. The great object of attraction is the mosque which contains the tomb of Mahomet; it is smaller than the Beitullah of Mecca, but built on a similar plan, forming an open square, surrounded with colonnades, and having a small building in the centre. Near the south-east corner stands the famous tombs, wherein are deposited the remains of Mahomet, and the first two caliphs, Abubekr and Omar. In the neighbourhood of the city are *Mount Ohud*, where the prophet suffered a bloody defeat from the Meccawys; and the *wells of Beder*, where he gained his first victory over them. *Yumbo*, a small town on the Red Sea, with a capacious harbour, the best on the coast, is considered the port of Medina, from which it is distant about 100 miles S.W. It is situate on a low sandy spot, which is utterly destitute of vegetation. The population is very fluctuating, but is estimated by Lieutenant Wellstead at 2000. No ships resort to the harbour, and its trade is carried on by boats. Lat. $24^{\circ} 3' 35''$ N.

In that portion of the Hedjaz which corresponds with the ancient Arabia Petræa, are several places of remarkable interest. *Petra*, the ancient capital of the Nabatheans, is now deserted, but its site still exhibits many splendid remains of the architectural taste and the wealth of its inhabitants. It is situate in a small valley, called *Wady Mousa*, surrounded with precipices, about 64 miles from the head of the Gulf of Akaba. A little to the north-west is *Mount Hor*, where Aaron was buried, and where there is now a mosque containing his tomb. *Mount Sinai* and *Mount Horeb*, or *Jebel Katerin*, and *Jebel Mousa*, are situate in the southern part of the triangular peninsula formed by the forks or branches of the Red Sea, in a gloomy wilderness, consisting of long ranges of rugged rocks, intersected by deep valleys, at the bottom of which are found the only traces of verdure. According to Dr. Robinson, in his Biblical Researches in Palestine, it is *Jebel Mousa* that is the *Sinai* of Moses, and it is the northern part of it, named *Horeb* by the Christians, and not the summit, which he believes to be the place from which the law was delivered; there being in front of it a plain where the people might have stood, but which cannot be seen from the top. *Jebel Katerin* (usually called *Sinai*) is situate to the south-west of *Jebel Mousa*, which it overlooks, rising 8300 feet above the level of the sea. Between the two mountains, on the flank of *Jebel Mousa*, is the convent of St. Catherine, fortified like a castle, inhabited by about thirty Greek monks, and containing a very ancient church, and also a mosque, as old as the first century of the Hejrah. It is doubtful, however, whether or not these mountains be the *Sinai* and *Horeb* of Moses: there being another hill in the neighbourhood, which, in the opinion of some travellers, better accords with the history; and the honour is also ascribed to *Jebel Serbal*, a mountain considerably to the north-west. On the west coast of the peninsula is the small seaport town of *Tor*; about eight miles from which, on the sea shore, is the *Jebel Narmono* or *Sounding Mountain*. A solid slope of the finest sand extends from the base to the top of the mountain, a height of 600 feet, at an angle of about 40° with the horizon, and is encircled by a ridge of sandstone rocks rising to a pointed pinnacle, and presenting little surface adapted for forming an echo. When sand is rolled down it produces a sound commencing in a strain like the first faint notes of an Eolian harp, or of the fingers wetted and drawn over glass, and increasing in loudness as it descends, till at the bottom it becomes almost equal to thunder. *Akaba*, a Turkish castle at the head of the gulf to which it gives its name, is supposed to be near the site of the ancient *Elath* and *Ezion-geber*, from which the fleets of Solomon sailed to Ophir. It communicates directly with the Dead Sea by the long narrow valley *El Arabah*, which was for some time supposed to have been traversed by the river Jordan before the catastrophe of Sodom and Gomorrah; but is now found to be so much higher than the valley of the Jordan as to render that supposition impossible. *Wady Araba* joins *Wady Ghor* about 12 miles south of the Dead Sea, forming there a long narrow valley or ravine 250 to 300 yards wide, which is filled with tamarisks. It widens as it extends southward; and from $30^{\circ} 15'$ N. lat. slopes to the Red Sea, forming what is properly called the *Akaba* or ascent. To the north-east of *Petra* are *Karek* or *Carack*, and *Shobek* or *Montreal*, places distinguished in the wars of the crusades; *Karek* is still a considerable town of 550 families. Between *Akaba* and *Suez* is the desert *El Ty*, or, as the Arabs call it, *Tya-beni-Israel*, the desert of the Israelites, a desolate tract covered with black stones, which Burckhardt describes as the most dreary and barren wilderness he had ever seen.

In *Yemen*: *Saana*, the capital of the Imanat of Saana, one of the most powerful states of Arabia, stands in the middle of a beautiful valley 4000 feet above the level of the sea, and is a well-built town, surrounded with brick walls and towers. It is supposed to contain 40,000 inhabitants, who carry on a great trade, chiefly in coffee, and some of its merchants are reputed to be very wealthy. It is the seat of a dynasty of Imams, which dates from the year 1626, when the Turks were expelled from Yemen. The Iman has two large palaces, with extensive gardens walled round and fortified. The city also contains 20 mosques, many of which are splendid, with richly gilt domes. There are three other towns in the valley, *Rudak*, *Wady-Dhar*, and *Jeraf*, containing altogether about 30,000 inhabitants;

lat. $15^{\circ} 21' N.$, long. $44^{\circ} 21' E.$ *Mocha* or *Mokha*, 160 miles S.W. of Saana, a decayed town with 3000 houses, on the flat sandy shore of the Red Sea, with an open roadstead, was formerly the principal sea-port of Yemen, and the place from which the coffee was exported. *Zebid*, 60 miles N. of Mocha, is a small gloomy city with 7000 inhabitants, and a garrison of 700 men. *Beit-el-Jakih*, 83 miles N. of Mocha, a large unwall'd town of 8000 inhabitants, is the frontier town of the Egyptian or Turkish government, and has a citadel of some strength. It is the emporium of all the coffee from the interior, and is reckoned the hottest town in the Tehamah. *Aden*, on the coast of the Indian Ocean, east from Bab-el-Mandeb, was once a great emporium of commerce, and has an excellent harbour; but its trade has been lost, and the town has been reduced to a heap of ruins; it contains a population of about 600 Jews, Banians, Arabs, and Somalies. It is built on a small flat, probably the bottom of a crater, surrounded by precipitous rocks, on the east side of a peninsula formed by two fine bays, in the one of which, opposite the town, is the fortified island of *Sirah*, which commands the approach. The peninsula consists chiefly of a mass of volcanic rocks, of the most rugged and fantastic forms, extending five miles east and west and three broad, and having as its most southern point, *Ras Senailah* or *Cape Aden*, in lat. $12^{\circ} 45' 10'' N.$, long. $45^{\circ} 9' E.$ The highest part of the peninsula is *Jebel Shamshan*, a rocky promontory of limestone, rising 1776 feet above the level of the sea. The peninsula bears a strong resemblance to the rock of Gibraltar, and could easily be rendered as impregnable; but its rocky masses are higher and more peaked in their outline. It is connected with the mainland by a neck of flat sandy ground only a few feet high. But both the peninsula and the mainland present the most desolate aspect; not a tree or a shrub is to be seen; and the heat is intolerable. On 5th June 1839, at six in the evening, the thermometer stood at 100° in a stone house; the place, however, is healthy. Aden has been taken possession of by the British Indian Government; the population is already increasing, and the town promises to become again as great a seat of trade as it was in the 13th century, when it contained 30,000 inhabitants. The neighbouring country abounds with honey and wax of the finest quality. *Makullah* or *Makallah*, 300 miles E. of Aden, in $14^{\circ} 31' N.$ lat. and $49^{\circ} 13' E.$ long., a sea-port town on a low projecting point under the face of a precipitous hill, is the principal trading place on the south coast of Arabia, and has a population of 4000 to 5000. Many of the houses are lofty and substantial. *Sihun*, the capital of Hadramaut is situate 160 miles distant from Makullah. *Loheia*, a town on the Red Sea, is situate in a poor country, with a shallow harbour and bad water; but exports a good deal of coffee. *Hodrida*, a town of considerable size on a sandy bay of the Red Sea, where ships are well protected. The neighbouring country is flat and sandy, and chiefly produces dates; but from the mountains, which are visible from the coast, at the distance of two days' journey, grapes, coffee, limes, and other vegetable productions are brought to the market. *Gomfudah* or *Con'udah*, is a port on the Red Sea. *Dafar* or *Zafar*, a town of Hadramaut, on the ocean, in the district of Shih-hir or Seger.

In *Oman*: *Muskat*, *Maskat*, or *Muscat*, a large town, is situate at the extremity of a small cove, in lat. $23^{\circ} 38' N.$, long. $58^{\circ} 42' E.$, in the gorge of an extensive pass, which widens as it advances into the interior. The town presents a fine appearance from the sea, but consists of narrow crowded streets filthy bazaars, and wretched huts, intermingled with low and paltry houses. The palace, however, of the Imam, the governor's house, and some others, are good and substantial. Muskat is important not only as the emporium of a very considerable trade with Arabia, Persia, and India, but also as the principal sea-port of Oman. Its imports are chiefly cloth and corn. The customs are fixed at 5 per cent. on all imported goods; but no duties of any kind are levied on exports, which consist chiefly of dates, madder, sharks' fins for China, and salted and dried fish. The returns are made principally in bullion and coffee. The population of Muskat and the adjoining town of Matareah, which is a very large collection of huts about two miles distant, is estimated at 60,000, and consists of a mixed race of Arabs, Persians, Indians, Syrians, Kurds, Affghans, Beloochees, and others, who have been attracted by the equity of the government. They are chiefly engaged in commercial and maritime pursuits; the principal body of the merchants consist of Banians, who almost exclusively monopolize the pearl trade of the Persian Gulf. The common language is Hindoostanee, or lingua franca. The trade employs 14 ships and brigs, and 500 bungalows and batties, from 60 to 400 tons; the coasting trade nearly 1200 more, from 8 to 40 or 50 tons. Muskat is the capital of a state, whose sultan, usually but erroneously styled the Imam of Muskat, claims the sovereignty of all the coast of Africa from Cape Delgado to Cape Guardafui; of the southern coast of Arabia from Aden to Ras-al-had, and thence northward as far as Bussrah; and of all the coasts and islands in the Persian Gulf, and the oceanic coasts of Persia as far as Sinde. His yearly revenue amounts to about 700,000 Spanish dollars. His only permanent military force is a small body of men accoutred like the Indian seapoys; but he can in three days collect from southern Oman 10,000 men, and can soon increase it to 30,000 by the accession of the neighbouring Bedwins. His flag now even crosses the Atlantic, and his traders have visited the ports of the United States. Muskat is considered the hottest town on the globe, being encircled by naked rocks, the sun's rays become concentrated as into a focus, and the heat is at certain seasons almost intolerable; the thermometer ranges in January and February about 50° , but in July and August generally from 90° to 115° , and has even been observed at 122° in the shade; the Arabs emphatically call it *El-Jehannum*, Hell. Very generally, however, this extreme heat is moderated, during the day, by cool and refreshing sea breezes. *Sohar*, a town of 9000 inhabitants, 140 miles W.N.W. of Muskat, carries on a considerable trade with Persia and India. There are several other large towns on the coast of Oman; but, with the exception of *Rostak*, which is large and well-built, there are none of any importance in the interior.

In *Lachsa*, the principal places are: *Ras-al-Khyma* or *Khaima* (Tent Cape), not far to the west of Ras Mussendon, a flourishing town, the residence of the sheikh of the Joasmee pirates, and the station of their fleet, which consisted at one time of 63 large vessels, and 800 barques, manned by 19,000 men. All their ships, building yards, and forts, were destroyed by the British forces from India in 1809, and a second time in 1819, but the town is again flourishing as ever. Its harbour is the best on the coast. *El-Khatif*, a fortified town situate on a bay, with about 6000 inhabitants, is the most commercial place in this part of Arabia. *Fouf*, the chief town of the country of Lachsa, with about 15,000 inhabitants, consists of a fort, surrounded by an open village, fields, and plantations of date trees. *Grain* or *Koweit*, at the north-west corner of the Persian Gulf, is a town of 10,000 inhabitants, who live by fishing and trade.

In Nedjed the only place worth mentioning is *Derreyeh* or *Deraiah*, the capital of the ephemeral empire of the Wahabees, situate at the entrance of a deep and narrow valley, which is enclosed by arid mountains. It contained 28 mosques, 30 colleges, and 2500 houses; but in 1819 it was quite deserted, and we have no information of its present condition.

PERSIA.

THIS name is applied by European geographers to the wide region which extends from the basin of the Euphrates and Tigris, eastward to the Indus; and from the Indian Ocean, northward to the borders of Turkestan and the Caspian Sea. The name Persia, however, is quite unknown to the natives; and, whatever may have been the case in former times, this country does not now form one kingdom, but is divided politically into three regions, namely, *the Kingdom of Iran or Persia proper; Afghanistan or the Kingdom of Cabul; and Beloochistan or Belûchistan.*

THE KINGDOM OF IRAN

It is situate between $25^{\circ} 40'$ and $39^{\circ} 40'$ N. lat., and 44° and 62° E. long.; and is bounded on the east by Afghanistan and Beloochistan; on the west, by the mountains of Kurdistan, the river of the Arabs, and the Persian Gulf; on the north, by Russia, the Caspian Sea, and the Türkman desert; and on the south by the Persian Gulf and the Indian Ocean. Its greatest length, from north-west to south-east, or from Ararat to beyond Cape Jask, is about 1250 miles, and its greatest breadth, from south-west to north-east, or from Bussrah to beyond Meshid in Khorassan, about 870. The superficial area is about 500,000 square English miles. The southern and south-western portions form a narrow tract of level, dry, and arid country, without rivers, lying along the shores of the Persian Gulf. The appearance of this tract is everywhere the same, a succession of sandy plains; in viewing which the eye is occasionally relieved by plantations of date trees and patches of cultivation which are found near the wells and fresh water rivulets which are thinly scattered over the barren country. It is called the *Dushtistan* or *Gurmsir*, i. e. warm region. The heat during four months in the year is scarcely supportable even by the natives, and the atmosphere is so unwholesome that strangers who fall sick seldom recover. Along the shores of the Caspian Sea there is a corresponding narrow tract, but of a different character; for though the climate is very warm, and the heat in summer scorching, yet the winters are mild and the atmosphere is always excessively moist. To the human species this is a most insalubrious region; but, under the joint influence of heat and moisture, the vegetation is most luxuriant. The sugar-cane is cultivated with success in the low countries of Ghilan and Mazanderan, while the slopes of the mountains are covered with forests of acacias, lindens, oaks, and chestnuts, and their summits with the cedar, the cypress, and various other pines. Between these two narrow lowland belts lies an extensive table-land, generally of the great height of between 2500 and 3500 feet above the level of the ocean; though at Koom it is so low as 2046 feet; and in some other places even lower. It is, generally speaking, an immense, dry, salt plain, traversed by ranges of mountains, either isolated, or connected with the frontier chains, and includes many long valleys, which are, in fact, the only cultivated and populated parts of the country. This table-land is formed on the north by the great chain of mountains which connects the Himalayas with the Caucasus; a very high limestone ridge, rising abruptly from the shores of the Caspian, where it bears the name of *Elburz*, and the deserts of Turkestan, but declining more gently towards the inland country. The western and southern boundaries are formed by the mountains of Kurdistan, Louristan, and Bukhtiari, which extend south and south-east from Armenia to the Indian Ocean, consisting of from three to seven parallel ridges, separated by long narrow valleys, and forming so many terraces rising above each other, between the Gurmsir and the Sirhood, or cool country, in the interior. From both chains arise a multitude of ramifications which cover the country like a network, stretching in all directions, and heaped upon each other as if thrown together at random; but few of them rise more than 1000 feet above their base. There are but few passes leading through these natural walls of Upper Iran, into the low countries on the south-west and the north. Those which have acquired the greatest celebrity are: the *Median Pass*, which, beginning near Baghdad, passes through the Median gates (*Pyle Medice* of the ancients), by Kermanshah, Bes-tûn, and Kungavar to Hamadan. 2. The pass called *Katal-i-dokhter* leading from Bushire to Shiraz; where the ascent is made by means of a road, most skilfully constructed, buttressed, levelled, and parapetted, so as not to alarm even the most timid, and broad enough to admit of several mules abreast. The summit is believed to be 6000 feet above the level of the sea, where there is a plain, green as an emerald in summer. Nothing, it is said, can be more striking than the change from the Gurmsir to the fine climate and rich soil of these elevated plains. Above Shiraz the road now bearing the name of *Desh-t-i-Arjan* passes through winding mountain tracks and narrow ravines till it reach the plain of Merdusht, which contains the ruins of Persepolis. The summit of this pass is not less than 7200 feet above the level of the sea. From Persepolis the road proceeds over a third range of mountains, reaching the height of 6600 feet, to the valley of Isfahan, which is itself 4140 feet above the level of the sea. From this level the mountain passes farther north, near Kohrûd, rise nearly 2000 feet higher. A third great road begins at Gambran or Benderabassi, and leads northward to Kerman over the Gebel Abad, but we are not aware that the elevation of its valleys and passes has been ascertained. Of the ancient Caspian and Hyrcanian gates (*Pyle Caspia* and *Pyle Hyrcaniae*), leading through the mountains to Mazanderan, the former, supposed to be the one that leads past Kishlac, rises to 4572 feet; and the other, by Shahrûd into the province of Astrabad, to 3411 feet. The summits of the mountain range through which they extend, do not rise above 7000 feet, except only the peak of Demavend, which reaches 14,600.

The great plains of the table-land are all to be found in the eastern part of Iran. Westward, the table-land narrows to nearly half the breadth, but increases in elevation, rising into mountain masses which become higher and higher, till in the provinces of Azerbaijan and Kurdistan, it is replaced by enormous mountains, and the high valleys which are found among their ranges. But the principal feature of this region is the great extent of its deserts, or sandy and salt plains, which form no inconsiderable portion of that long series of deserts already mentioned as extending across Africa and Asia. But, besides the characters common to them all, the deserts of Iran exhibit some peculiarities. The principal desert is the *Kureer* or *Great Salt desert*, which extends, with a very irregular outline, over a great part of the provinces of Irak and Khorassan. In some places its surface is dry, in others it is a crackling crust of earth covered with efflorescent salt. Elsewhere it is marshy, the melting of the snow occasioning an accumulation of water in the lower parts, which in summer is evaporated, and leaves a quantity of salt in the form of cakes upon a bed of mud. In other places again, sand predominates, either in the shape of heavy plains, or wave-like hillocks, easily drifted by the wind,

and at times so light and moveable as to be dangerous to travellers, who are not unfrequently buried under its heaps. There are also the deserts of Kerman, and Mekran; and even the low country along the gulf is little better than a desert.

The low shores of the Caspian Sea are exposed to oppressive heats in summer; but the winter is mild, and excessive humidity at all times pervades the atmosphere. Like tropical countries they have a rainy and a dry season; the heavy gales commence in September from the north and north-east, by which the clouds are driven against the mountains, and the rain in consequence descends in torrents, accompanied by terrific thunder storms. In the plains the rain continues till the middle of January; but among the mountains, it is converted into snow in November. The spring, from March till May, is the most pleasant and healthy season. In summer, though rain is less frequent, the atmosphere contains much moisture, and the plains are almost constantly covered with vapour and fogs, which occasion fevers and other dangerous diseases. In the central table-lands excessively hot and dry summers are succeeded by rigorously cold winters. From March till May high winds generally prevail, with frequent hail-storms. From May till September the air is serene, scarcely a cloud is to be seen; dews are unknown; but refreshing breezes prevail during the night. From September till November high winds again prevail; the atmosphere, however, still remains extremely dry; in winter snow storms are frequent, but thunder and lightning are very rare. This general character, however, of the climate is subject to local modifications. The mountainous regions of Kurdistan and Azerbaijan derive from their great elevation and their forests, a greater degree of humidity, and enjoy a more equal temperature, although the winters are sometimes exceedingly severe. Fars also, especially the valley of Shiraz, is exempt from great extremes of heat and cold, the thermometer in summer seldom rising higher than 80°, or sinking at night below 62°. In descending towards the shores of the Persian Gulf the climate and the face of nature undergo a complete change. From the mouths of the Indus to those of the Euphrates, the narrow tract of low land which lies between the mountains and the sea bears a greater resemblance in soil and climate, to Arabia than to the uplands of Persia. The country is almost an entire desert, and the summer's heat is insupportable; but the heat and dryness of the climate are the very circumstances which make it suitable for the growth of the date tree, which is almost its only vegetable product.

The table-land is entirely destitute of trees, and is chiefly covered, where there is any vegetation at all, with plants which require a saline soil. The soil is generally a hard clay, quite unproductive without irrigation, but wherever water can be obtained, the vegetation is most luxuriant. Wheat is the chief produce; barley, millet, and oats are also grown, and in Mazanderan, rice is cultivated with great care. The gardens of Iran are highly celebrated, and few countries surpass it in the variety and flavour of its fruits. It is believed to be the native country of the fig, pomegranate, mulberry, almond, peach, and apricot; it also produces oranges and lemons of great size, melons, quinces, and grapes; hemp, tobacco, opium, sesamum, rhubarb, manna, saffron, cotton, turpentine, mastic, various kinds of gums, and gall-nuts. The most remarkable vegetable production is the plant from which *asafetida* is obtained. Poppies, which produce opium, are cultivated all over the table-land, and in many places saffron is also raised. The silk-worm is extensively reared, and the annual produce of silk has been estimated at 20,000 bales of 216 lbs. each.

The animals are, horses of different breeds, some of which are considered the finest and the hand-somest in the East; camels of both the Bactrian and the Arabian species, and a mule breed produced between them, which is considered preferable to the pure breeds in respect of strength, docility, and patience; horse-ass-mules, asses, wild asses, and bees. Numerous flocks of goats and sheep form the wealth of the nomadic tribes, while antelopes, hares, zebras, foxes, and deer of various kinds afford amusement to the sportsman. Boars, bears, lions, and the smaller kinds of tigers lurk in the forests and the mountains, and hyenas and jackals infest the southern provinces. There are also tame and wild fowl of the same kinds as in Europe, with plenty of pigeons and partridges, eagles, vultures, and falcons.

Iran is not rich in mineral products. Salt is too abundant; the ground is everywhere impregnated with it. Copper is found in Mazanderan and Kerman; iron and silver in Azerbaijan; sulphur and nitre in Mount Demavend; turquoises in Khorassan; and naphtha and bitumen in Irak. Medicinal springs of various kinds are numerous; and near Maragha, in the valley of lake Urmiah, there is a spring whose petrifying quality is so remarkable, that it produces a beautiful transparent stone, called Tabriz marble, which admits of being cut into large slabs, which take a good polish and form a principal ornament in the buildings throughout the country.

PEOPLE.—The Iranee are divided into two great classes, the fixed and the erratic, the latter being called *Eilauts* or *Ilyats*. The former, called *Sheheres* by the rural tribes, are a mixed race of Turks, Tartars, Arabians, Armenians, and Georgians engrafted on the stock of the ancient Persians, and their general language is a mixture of Arabic with the ancient dialect of Fars. They are generally called *Tajiks* or *Taujiks*; and by that name only are their colonies in Afghanistan and Turkestan distinguished from the other inhabitants. They are a fine race of people; they are not tall, but it is rare to see any of them diminutive or deformed, and they are in general strong and active. Their complexion varies from a dark olive to a fairness nearly approaching the northern European. They are quick of apprehension, vivacious, and naturally polite, sociable and cheerful, but prodigal and rapacious. The higher classes are kind and indulgent masters, and the lower ranks, so far as respects the active performance of their duty, and the prompt execution of orders, are equally good servants. But there is a great difference and variety of character among the inhabitants of different cities and provinces; some being as remarkable for their courage as others are for their cowardice. The highest class, from whom the ministers of state are usually selected, are called *mirsas* (secretaries or men of business), who are often highly accomplished, but versed in deceit, and not very remarkable for strict morality. They rarely indulge in martial or athletic pursuits, nor do they assume much state. They do not wear swords, and are distinguished by a calumdaun, or instead, stuck in their girdle instead of a dagger. The merchants are numerous, and often wealthy; the shopkeepers and tradesmen are distinguished for cunning and insincerity, but are versatile, humble, and persevering. The clergy, including the expounders of the law, are a very numerous, wealthy, and powerful body; the higher ranks of whom are usually men of learning, of mild temper, and retired habits, and are very careful to preserve the respect which they enjoy, by cherishing the popular impression of their piety and humility; but nothing can be worse than the character of the lower classes of the clergy: their hypocrisy, profligacy, and want of principle, are the subjects of stories, epigrams, and endless proverbs. They are bigoted and intolerant, and are often accused of indulging the worst passions. To say, a man hates like a mollah, is to assert that he cherishes sentiments of the most inveterate hostility. The cultivators of the soil appear, in general, to be in easy circumstances. Their houses are comfortable and neat, and are well supplied with the necessities of life.

The character of the *Eilauts* or *Ilyats* is very different from that of the other class; they are generally sincere, hospitable, and brave; but rude, violent, and rapacious. Their origin is various; those that are indigenous are found principally in the hill countries of the south and west; the others are chiefly Turks and Arabs. Many of them have become inhabitants of towns and villages, and the class is therefore divided into *Shehr-nishin* (dwellers in towns), and *Sahra-nishin* (dwellers in fields). A few only adhere to their former mode of life, live during the whole year in tents, in winter keeping to the plains, and in summer seeking the pasturage of the mountains. These look upon the *Shehr-*

nishin as degenerate. The principal or most distinguished tribes are :—The *Kajar*, to which the present royal family belongs, who occupy the country around Astrabad and Teheran, with branches in Casvin and Erivan. The *Afshars*, of Turcoman origin, are found in the greatest numbers at Abivard, in Khorassan, the birth-place of Nadir Shah, the most distinguished member of their tribe, and at Kelat, his favourite stronghold. The *Laks*, a very large tribe of ancient Persian origin, and renowned as thieves, are much dispersed, but their principal seats are about Casvin, and in Fars and Mazanderan. The *Feili* are the most numerous tribe, and the most formidable, from their being all collected in one region, the western side of the mountains of Luristan, and the adjoining parts of Khuzistan; they number 100,000 houses. The *Bukhtiaris*, a mountain tribe of 100,000 houses, inhabit the high lands of Luristan, and are a brave and hardy race. On the eastern frontier are two large tribes of *Arabs* and *Kurds*, who were transplanted thither by Shah Ismail, in the sixteenth century; the former have increased to 6000 tents, and the latter to 50,000 houses, and are formidable from their numbers and bravery, and their predatory habits. The *Aimaks* or *Eimauks*, a large Affghan tribe in Khorassan; the *Baluch*, in Southern Persia; the *Khodabenechlu*, near Teheran, of Persian origin; the *Shekagi*, a Turkish tribe, in Azerbaijan; the *Memaceni* pride themselves on their antiquity, and preserve their original wildness and independence, by keeping almost constantly in the fastnesses of Fars, where they are celebrated as robbers. Most of the tribes, however, are so much dispersed, that they have lost that union which alone could render them formidable. Such of them as have become inhabitants of towns are subject to the laws and regulations of the community to which they have attached themselves. The Saltra-nishins, though taxed in various ways, and made to contribute to the military service of the state, are comparatively less molested by the government than the other subjects. Their wealth consists principally in cattle and sheep. They breed camels and horses for sale, and their sheep yield milk, which is made into *raughan* (liquid butter) and sold. Their peculiar privileges consist in liberty to range over districts from which none can dispossess them. They ascend in summer to cool regions called *yabik*, where they find pasture; in winter, they return to the lower and warmer districts, which they call *kishlak*. These regions are assigned by the government to each tribe; and whenever the appointed limits are encroached upon by other tribes, violent strife and battles ensue. The government is generally very jealous of the migrations of the tribes; and prevents them from moving from one province to another without the king's permission; but in troublous times, if they be strong enough to encounter opposition, they frequently pass from their old haunts to better localities. The existence of these migratory tribes being advantageous to the government, they are little oppressed; they are taxed at certain established rates on each head of cattle, and are called upon to serve in the king's armies. They are not compelled to labour on public works, like other subjects; and their taxes are levied by their chiefs, who transmit them to the government. In their small communities they are governed by *Beis-sefid* or elders. Their chiefs are the only hereditary nobility of Persia. — (*Some account of the Llyats, or Wandering Tribes of Persia, by James Morrier, Esq. Journal R. Geog. Soc. Lond. VII. 230.*)

Speaking generally of the Persians, says Sir John Malcolm, we may describe them as a handsome, active, and robust race of men; of lively imagination, quick apprehension, and agreeable and prepossessing manners. As a nation they may be termed brave; but their vices are still more prominent than their virtues. There being no such thing as a census in Persia, the amount of its population can only be conjectured. The fixed inhabitants are estimated by Mr. Fraser at 7,000,000 the *llyats*, by their own account, amount to nearly half a million of houses or families, or 2,500,000 individuals.

RELIGION.—The Tajiks, Ghelakis (inhabitants of Ghilan), Lours, and Baluchees, are Islamites of the Shia, or heterodox sect; the Turkish and Arab tribes, and the greater part of the Kurds, are Soonnies. Jews are met with in all the great towns; Armenians and Nestorians are also to be found, and a few Sabaeans, or star-worshippers. It has been conjectured that there are between 200,000 and 300,000 professed Sufiees, or free-thinkers. The clergy consist of various orders. The highest are *Mushteheds*, of whom there are seldom more than three or four. Next in rank is the *Sheikh-ul-Islam*, or Ruler of the Faith, who is the supreme judge of the written law, in which capacity he enjoys a salary from the government. In every mosque of consequence, and at every considerable shrine, there are at least three clergymen; the *mütülle*, who manages the temporal affairs; the *Muezzin*, who summons the people to prayers; and the *Mollah*, who conducts the ceremonies. If the establishment is rich, there are several *mollahs*, from whom is selected a *peish-numaz* (fugleman), who recites the prayers, and goes through the motions and genuflections, to guide the congregation. The *mollahs* also preach occasionally a sort of sermons on texts from the Koran. Besides these, there are in every city, and connected with all seminaries of learning, a crowd of *mollahs*, who, like the French abbés of old, live by their wits, and have little of the priestly character but the name. The character of the class, as already mentioned, is generally very indifferent. The only remains of the ancient fire-worshippers, or followers of Zoroaster, called *Guebres* or *Infidels* by the Moslems, reside chiefly at Yezd, Kerman, Shiraz, Isfahan, and Kashan; but they are very few in number, there being only about 2300 families in the whole of Persia.

EDUCATION AND LEARNING.—The Persians received their arts and sciences originally from the Arabs. The Ptolemaic system of astronomy was implicitly accepted as true, and still continues to prevail. During the reigns of the Sufavey princes the *mollahs* had acquired great power and independence. Mahomet has made no positive provision for the ministers of his religion, and has denounced priesthood in very strong and decided language. Nevertheless, during the long reigns of the house of Seif, and even earlier, the endowments of land and other property which had been made to the colleges, mosques, and other religious institutions, had become so large in the hands of the *mollahs*, that they possessed above a third of the whole revenues of the kingdom, and were therefore, as a body, powerful and formidable. During the ravages which followed the Affghan invasion and the extinction of the Sufaveys, their estates suffered considerably and fell into decay, and Nadir Shah seized the opportunity of proposing that if they would relinquish all claims to their territorial possessions he would in return allow them a fixed income out of the government treasury as pensions. Thus the literary institutions were deprived of all their estates; the colleges and public buildings which had been ruined during the revolution were never restored; and those which had withstood the political storm soon fell, from want of repair, to utter ruin. After the establishment of the present dynasty, a severe struggle took place between the regal power and the influence of the *mollahs*, who possessed at that time great authority over the minds of the people. The agreement made with Nadir Shah had served his purpose of rendering the *mollahs* completely dependent on him; but when the country again became involved in anarchy, the stipulated pensions were gradually diminished, till at length the *mollahs* were obliged to seek some other means of subsistence. They consequently allied themselves more closely than ever with the people, on whom their sole dependence rested, and by their own religious zeal, and by appealing to the superstitions of the populace, and constantly rousing their prejudices or their fears, they succeeded in obtaining the most complete ascendancy over their minds, and thereby acquired so formidable a power, that they have ever since set at defiance the authority of the kings, who are compelled to court their friendship and solicit their blessing. Futey Aly Shah, during his reign, increased their pensions, and restored the college lands as far as possible. Several colleges were built at Teheran, one by himself, and others by his nobles and relations. From the beginning of the present century Persian literature has been decidedly on the advance. A spirit of intellectual refinement is beginning to influence society, and

a general thirst for knowledge prevails among the Persians of the present generation. With the exception of some of the lowest peasantry and actual paupers, there is now scarcely a mechanic or labourer who does not send his children, especially the boys, to school; but the system of instruction is so bad, that the pupils, after four or five years' attendance, are unable to read or write. The children are first taught the Arabic alphabet, and are then required to read the Koran in its original language; and until they can do so fluently (without, however, being made to understand a word), no attempt is made to teach them their own language. From this point, however, the system is tolerably good; those whose parents can afford to keep them longer at school, and those who are intended for the university, now make a rapid progress, and on the average, become in three years respectable scholars; after which, and not till then, Arabic is taught grammatically, and then for the first time a young man begins to comprehend the meaning of the Koran. The absurdity and the mischievous effects of this system are daily becoming more and more obvious. Another event, which must necessarily have important consequences on literature, is the introduction and establishment of the printing press. The first was established at Tabriz about 25 years ago; six years later another on a larger scale was set up at Teheran; and a third has since been established at Isfahan. The books which have been printed hitherto are chiefly elementary schoolbooks, and works on theology and law. Even the girls are now much better instructed than formerly, and a father does not fear, in defiance of the Imams, to allow his daughter to learn to write, an accomplishment which those leaders of the faithful have strictly prohibited. They would indeed have forbidden women to open a book, but for the clear and unequivocal directions of the prophet himself, who exhorts all his followers, without distinction of sex or caste, to acquire knowledge, and particularly to study the Koran. The good effects of the education of women are becoming more apparent every year; the greater number of them will not now consent as formerly to be married to men whom they have not seen, and hold it no breach of filial duty to refuse obedience on such occasions.

Isfahan contains the largest and most important university. There is one also at Shiraz, and a third at Meshid. In all of these the Arabic language and literature, and the Mahometan laws and theology, are studied; but each seminary is celebrated for some particular branch or branches of learning. Accordingly Meshid is considered as the seat of natural philosophy, but in truth very little is taught there. In mathematics the students scarcely ever go beyond the elements of Euclid and the *Almagest*. The Ptolemaic system of astronomy is also studied to a limited extent, and the belief in astrology is as strong as ever; this keeps the credulous in the constant practice of algebra, which they understand tolerably well. Of geography they literally know nothing. Isfahan is the great school for metaphysics and philosophy, and the students cultivate these sciences with logic and usool (general principles of law) to singular perfection. The city contains about 30 inhabited colleges, some of them very large and flourishing, and the number of masters and students in and out of college may amount to 6000 or 7000. At Shiraz there is a curious mixture both of men and studies. There are to be found the high orthodox theologians, the Akbaras, who consider every branch of literature, excepting *fikah* and *padith* (law and traditions) as useless, and hold that whoever wastes his life in any other pursuit incurs the denunciations of the holy Imams, already recorded against such infidels. There, too, are the *Hakemi-Soolies*, or religious philosophers, who, although they consider the study of the law to be the most important, yet, according to the clear declaration of the prophet himself, that "the knowledge of anything is better than being ignorant of it," do not think it wrong to study the usool and metaphysics. Again, there are the *Soofiges*, who are divided into two great branches, the *Soofig-Molasharrifs*, or orthodox Soolies, who admit (rather reluctantly) the mission of the prophet, but not directly from above: their belief is that he was himself a Soofi, inspired by the divine spirit to guide the vulgar and organise society; but they do not consider themselves bound to obey his precepts as they stand in the Koran, some of which they explain metaphorically, and act accordingly; not believing, for instance, that an occasional glass of Shiraz wine, or food which is not injurious to the health, can hurt any one. The others are termed *Soofig-Motlacks*, or abstract philosophers, who look upon the Koran as a fine specimen of Arabic composition, but do not entertain any particular reverence for its author. The Soolies are upon the whole the most rational and intelligent of the Persian literati; they do not hesitate to study any subject, nor to discuss any point, whether intellectual or moral, with any rational being, whether infidel or Moslem. There are, and have always been, more sound and learned men among the Soolies, than among any orthodox class of the educated men in Persia; and however misrepresented and calumniated by their enemies, the superstitious Moslem, their morality is in general beyond question.

Besides these three principal universities there is another which furnishes the Persian colleges and societies with many highly orthodox mollahs, at Kerbelah, where there is a seminary for the study of law and philosophy, chiefly attended by Arabs and Persians. The arch-Mojtahed of all Persia generally resides there as head of the university, and thence sends his resalas or mandates to all parts of the kingdom, together with numerous disciples, whose high Mahometanism and *khoshky-damagh* (dryness of the brains, as the Soolies term it), baffle all description. But Sooliism is gaining ground in Persia, and those *khosh-damaghs* are not so much feared, nor are the Soolies so much abused and persecuted as formerly. The greater part of the literary men of Shiraz are Soolies, who scarcely disguise their principles, and yet are rarely molested or interfered with by the orthodox. A Soolie doctor may now sit in his *divan-khanah* (outer room), with his pupils around him, without fear of being assailed by the mollah-mob, persecuted by the fakih, or bastinadoed to death, as he probably would have been 25 years ago. The courses of study at the colleges comprise Arabic and Persian literature, logic, metaphysics, moral philosophy, theology, law, usool, and *tafsir* (commentaries on the Koran), all of which they study thoroughly. Their knowledge of mathematics is very limited; with natural philosophy they are in general but imperfectly acquainted; of geography and geology they know little; in fact they are rather a literary than a scientific people. Poetry has been in all ages, and is still, a favourite pursuit, and there is scarcely a species of composition which the Persian poets have not cultivated with success. During the reigns of the Sulavey princes Persian literature began to flourish. They spared no pains to improve the country; gave every encouragement to literature and science; and built and nobly endowed colleges in almost every city. The nobles followed their example. No sooner was a college built by the sovereign, than others were commenced by his servants, and endowed with lands or money, amply sufficient to render the students, who never pay for their education in any college, and the teachers comfortable and independent. Under Abbas the Great Isfahan became a seat of learning, and Shiraz resumed its ancient fame. The greater number of colleges were established at Isfahan, and an immense congregation of professors and students were collected there from all parts of Persia, and formed a large and brilliant university. The system of instruction, the modes of study, and the habits of the students, are excellent. Every college has a superior, who, with assistants, presides over its discipline, and manages its property, if it have any. There are no formal degrees conferred, except on the immediate ministers of religion, nor any professorship founded. The lectures are all public, and open to any person who may choose to attend them. Any man may act as a professor and give lectures, but the number of his pupils will of course depend upon his ability. There is no emolument attached to a professorship, nor do the scholars pay for instruction; public fame and honour are the only rewards. — (*History of Persian Literature by Mirza Ibrahim, of Haileybury College; published in Athenaeum 1837.*)

GOVERNMENT.—The government is an unmitigated military despotism, the country and the people being considered the property of the king, whose word is law. The nomadic tribes, however, are ruled immediately by their khans, whose authority is sometimes very limited. The civil and criminal laws are founded on the precepts of the Koran, and are administered by the Sheikh-ul-Islam and his deputies, in the sherrah courts. There is also the *Urf*, or customary law, administered by secular magistrates, of whom the king is the chief; but the respective powers and privileges of these two branches of judicature have always been matter of dispute. It is scarcely necessary to add, that in Persia, as in every other oriental country, justice is sold to the highest bidder. The governors, indeed, civil, military, and ecclesiastical, from the highest to the lowest, seem never to have entertained the idea that the administration of justice, and the preservation of the public peace, are their highest, and, in truth, their only legitimate functions. They appear rather to look upon their subjects as things made for no better purpose than to be cheated, abused, robbed, and murdered, for their amusement, and for the gratification of their appetites and passions.

The public revenues which reach the royal treasury are said by Mr. Fraser not greatly to exceed a million and a half sterling; out of which are paid the expenses of the royal family; the salaries of officers not provided for in the expenditure of the local government; and the maintenance of *gholams*, or household troops. But the greater part of the public revenues are levied and expended by the provincial governors, who form a sort of petty kings, uncontrolled in their administration, though appointed by, and amenable to, the Shahan-shahee, king of kings, when he has power to enforce his commands.

The army is principally composed of irregular troops, supplied by the nomadic tribes, and officered by their chiefs. During the reign of the late king the European discipline and tactics were introduced to a considerable extent, but without much success; though, it must be admitted, that the regular troops, and the artillery in particular, have been very serviceable in reducing the rebel chieftains of Khorassan, who had nearly become independent. Against the regular troops the rebels could not keep the field, and their fortlets have been easily demolished by the artillery. The amount of force which the kingdom can raise, there is no means of determining, though the late king is said, in various ways, when he took the field, to have made up a numerical force of 100,000 fighting men, besides double or treble the number of camp-followers. The Persians are naturally qualified to make good soldiers; they are able-bodied, and capable of enduring fatigue and long marches with little food; and they acquire military discipline more readily than Europeans; but their military organization is defective to the last degree. Besides these regular and irregular troops, the king has a class of military favourites, called *gholams* or slaves, who are Georgian or Circassian captives, intermingled with the sons of the first nobles of Iran. The situation is one of honour as well as of contingent emolument, and is eagerly sought after even by the highest ranks. This body amounts to about 3000 or 4000, who are chiefly distributed about the king's residence, and attend him in camp. They are well mounted, and armed with matchlocks or muskets, swords, and sometimes pistols, and generally carry a shield on their shoulders. Their pay varies according to their standing and estimation. They are commonly employed as messengers on confidential business, and the more experienced of them are often entrusted with affairs of high importance, in which they contrive to amass large sums by extortion. Their name is a terror to the country, and the arrival of a *gholam-e-shahee*, or king's slave, is sufficient to throw a whole district into alarm.

PRODUCTIVE INDUSTRY AND COMMERCE.—The great mass of the fixed inhabitants are engaged in agriculture and manufactures; the nomadic tribes are herdsmen and shepherds. All the Jews, and many Armenians and Arabs are engaged in commerce. Agriculture is followed in many places with much activity and intelligence, in spite of the obstacles arising from the salt impregnation of the soil, the want of rivers, the obstruction of the aqueducts, bad roads, civil and foreign wars, and the oppressions of every kind to which the people are subject from a tyrannical and rapacious government. The France have a natural talent for the mechanical arts, some of which they have carried to great perfection. They excel particularly in making sabres, in copper and brass work, perfumery, dressing of leather, pottery, silk plain and brocaded, carpets, felts, painted cloths, and shawls. Their commerce is principally carried on by land, their maritime trade being all in the hands of the English, Arabs, and Russians. Their principal port on the Persian Gulf is Bushire; and on the Caspian, Enzili-e and Balfrush. The land trade is carried on by caravans, with Turkestan, Turkey, and across Turkestan and Afghanistan, with Russia, India, and China. The principal commercial towns are Tabriz, Kermanshah, Hamadan, Cashan, Isfahan, Shiraz, Balfrush, Mashed, and Nishapore. The principal articles of exportation are pearls, silk, horses, camels, goat-skins, camel-skins, lamb-skins, sal-ammoniac, naphtha, amber, turquoises, copper, sulphur, rice, nadder, gall-nuts, saffron, raisins, dates, pistachios, opium, almonds, salep, cotton, tobacco, silk-stuffs, cotton-stuffs, shawls, cloths, carpets, felts, leather, rosewater, asafetida, hemmah, copper and steel articles, pipe-heads, &c. The importations are principally indigo, cochineal, coffee, sugar, rhubarb, drugs, furs, tin, lead, iron, porcelain, tea, diamonds, rubies, and other precious stones, ivory, cunuchs, fine cloths, and all other kinds of European merchandise. There are no roads in Persia but such as have been made by the constant passage of baggage, cattle, and travellers.

DIVISIONS.—For administrative purposes, Iran is divided into large provinces, governed by *begh-terbeghs* or great lords, who have under them *kakim* or governors of districts, and *darogas* or governors of towns; but the limits of these provinces are frequently varying, and do not always comprise the territories of the nomadic tribes. Geographers, therefore, continue to retain the ancient divisions of the country, namely, *Kurdistan*, *Azerbaijan*, *Ghilan*, *Mazandaran*, *Astrabad*, *Khorassan*, *Irak-ajemi*, *Khuzistan*, *Fars*, *Laristan*, *Kerman*, and *Seistan*. These we shall now describe separately in their order.

PERSIAN KURDISTAN or ARDEHLAN, situate to the north-west of Irak, and to the south of Azerbaijan, measuring about 160 miles in length, by 100 in breadth, is composed of a series of hills and tablelands, intersected by narrow valleys, where the villages are built in situations to protect them from the weather. The soil is good, and would yield abundance of wheat and barley; but the Kurds content themselves with raising what is necessary for their own subsistence. Tobacco is cultivated in small quantity; and the forests of oak supply abundance of timber and gall nuts. The country is inhabited by various tribes of Kurds, but the principal chief, who claims at least the nominal supremacy under the king of Persia, is the Wali of Ardehan, who resides at *Senut*, a romantic and flourishing place, in a deep secluded valley, which is filled with orchards.

AZERBAIJAN, adjoining the north-western frontier, is one of the most fertile and most productive provinces, but is high, rugged, and cold. It extends in length 275 miles from N.W. to S.E., and 240 in breadth from S.W. to N.E. Nearly the whole of it consists of a succession of lofty mountains separated by deep valleys, which are partially cultivated, and open into fertile plains. In the very centre the mountain of Sahend raises its enormous mass, like a truncated cone, to the height of 9000 feet. To the east of Tabriz, and near Ardebil, Savellan rises to 12,000 or 13,000 feet, with every appearance of having once been a volcano, though no crater is now visible, it being probably covered with the snow. To the east the province is bounded by the mountains of Talish or Massula, which separate it from Ghilan; and on the west by the high range which extends southward from Mount Maecis, and divides Azerbaijan from Turkish Kurdistan and Armenia. The western portion of the province contains the large lake of Shahee or Urumiah, which is generally about 53 miles long, and 17

where broadest; its greatest depth is generally 45 feet; but it is subject to great variations both in depth and extent at different times. The water is so salt that no fish can live in it, though the smaller classes of zoophytes are found in considerable quantity, and is so buoyant that a man can scarcely stand in a depth of three feet; and will actually float on the surface. In shoals, which are not agitated by the wind, the water forms almost a paste of salt. The lake contains 56 islands, and a large peninsula on the east side, formed of a mass of rock 40 miles in circumference, containing 12 villages, and sometimes entirely surrounded with water. (*Monteith, Journal R. Geog. Soc. Lond. III. 54.*) Several large streams of bitter brackish water flow into it from the north, and it probably contains numerous subaqueous saline springs. The lake is bordered on its west side by the rich alluvial plain of *Selmas*, which extends westward to the mountain border of Turkey, and is thickly studded with villages. In the north-east there is another fertile plain, named *Chowal-Mogam*, which contains excellent pasturage, but is infested by a dangerous kind of snakes. Azerbaijan forms the north-western portion of the great table-land, and has a general elevation of 4500 feet. The climate is healthy and temperate, though the summer heat is considerable; during winter the atmosphere is generally very clear, but the cold is intense, and is the more severely felt, in consequence of the want of fuel, the only article of which is dried cow-dung mixed with straw. During several months in winter, the country is generally covered with snow; but, nevertheless, in the plain round Lake Urumiah, the winters seem not to differ much from those of northern Italy. The principal town is *TABRIZ* (or *Tabriz*, *Tarreez*, *Tauris*, i. e. fever dispelling) a prosperous commercial town, with a large but very fluctuating population. It stands about 4500 or 5000 feet above the level of the sea, in a dry and stony plain, bordered on three sides by bare mountains of the most fantastic forms, while on the fourth side the plain extends without interruption to Lake Urumiah, which is 30 miles distant. The city is about four miles in circuit, and is surrounded by a brick wall; and the citadel, a high and massy structure of brickwork, is visible from a distance rising above the broad screen of gardens which mask the approach to the city, and which, being cultivated with great care, yield every kind of fruit in the utmost perfection and abundance. The winter cold at Tabriz is severe, and snow sometimes lies for six months without intermission. *Dilman* is a modern town of about 15,000 inhabitants, near the north-west corner of Lake Urumiah. *Ardebil*, 85 miles E. of Tabriz, is an insignificant town, which in 1837 presented the appearance of a mass of ruins, but is remarkable as the original family seat of the Sophi or Saffavean dynasty of kings, who ruled Persia during the 16th and 17th centuries, and for a fort constructed on European principles. *Maragha*, an ancient town with 15,000 inhabitants, is noted as having been the residence of Holagü Khan, who conquered Persia in the 13th century, and is supposed to have been buried there. It contained, likewise, the observatory of the celebrated astronomer Nazir-u-deen; and near it are some singular caves, with altars not unlike the Lingam of India. *Urmi* (corrupted to *Rhymia*, *Urimiah*, or *Ooroomiah*), the birth-place of Zoroaster, the founder of the ancient Magian religion, is now a well-fortified town of 20,000 inhabitants, 80 miles S.E. of Tabriz, and 12 miles W. from the great lake. *Khoi*, one of the finest towns in Persia, has 30,000 inhabitants, 80 miles W.N.W. of Tabriz. *Selmas*, N.W. from the lake, with springs of sulphureous water. *Miana* or *Mianeh*, 94 miles S.E. by E. of Tabriz, a small dirty town of 2500 inhabitants, at the passage of the Saffid-rud, on the road to Teheran, noted for a species of bug, the bite of which is said to be fatal. Near the south-eastern border of the province is a remarkable place named *Takht-i-Suleyman* (Solomon's throne), which is supposed by Major Rawlinson to be the *Ecbatana* of DeJoces, described by Herodotus, and it certainly better corresponds with that description than Hamadan. It is an almost isolated hill, rising 150 feet above the plain, and having its brow crowned by a high wall with bastions, 1330 paces in circuit. The wall encloses the ruins of a deserted city, and a very deep lake, 300 paces in circuit. (*Journal R. Geog. Soc. Lond. X. 47.*)

GHILAN, *MAZANDERAN*, and *ASTRABAD* occupy the low tract which lies between the shores of the Caspian Sea, and the table-land of Iran. This tract in its western parts, is very narrow, but in Mazanderan it expands to a width of 20 miles, between the sea and the foot of the mountains. It is marshy, covered with dense forests, and a rank vegetation, and is extremely verdant and fruitful, and more than usually populous. The staple produce of Mazanderan is rice, of Ghilan, silk; and no other produce of the soil is much regarded. The ground, when not cultivated, consists of swamps overgrown with forest trees and thorns, and particularly with bramble bushes of incredible luxuriance, and perfectly impervious. Above the narrow plain rise the mountains in two ridges, the first is clothed with forests as dense as those in the plain below, and throws forward spurs which in some places reach the coast. Beyond this range, which is traversed in all directions by the wildest and most romantic glens, the peaks and rocky masses of the Elburz are seen rising in naked grandeur, and spotted with snow even in September, their elevation being from 6000 to 9000 feet. The coast is lined with a ridge of sand-hills, from 20 to 30 feet high and 200 feet broad, behind which lies a morass of stagnant water, in many places expanding into lakes, whose banks are overgrown with alders of enormous size, plane trees, elms, ashes, poplars, and other trees adapted to a moist soil; and, in the rainy season, the country is so flooded as to exhibit the spectacle of a boundless forest in a swamp. It is, indeed, impossible to imagine a more luxuriant vegetation than that of Mazanderan. Exposed alternately to heavy rains and a powerful sun, the rich soil throws out in profuse abundance every form of vegetable life. The wind which blows from the Caspian is sometimes thick like a Scottish mist, and is in consequence called the *bad-i-kabout*, or grey wind. The Mazanderanee are a fine hardy race, of a deeper bronze complexion than the inhabitants of the northern parts of the table-land of Irak, and distinct from them both in manners and language. The language of Ghilan is a dialect of the Persian, and is that of the Talish, a small province which borders and forms a continuation of Ghilan on the north. The principal places in Ghilan are, *Resht*, *Enzileh*, *Tomen*, and *Lahijan*. *Resht*, the capital, is a busy trading town; but its population of 60,000 or 80,000 was recently reduced by cholera and other calamities, to 15,000 or 20,000. *Enzili* or *Iuzli* or *Enzilleh*, its shipping port, 12 miles distant, is a town of from 300 to 400 houses, at the east end of a sandy spit, with an excellent harbour, a good bazaar, and a population chiefly Russian. The spit, which is 15 miles long, and in some places only 150 yards wide, is divided from a similar tongue of land, called *Kazeran*, by a strait 500 yards wide, but only five feet deep; and inside, the water is usually so fresh as to be fit for drinking; about 70 streams flow into the lagoon. *Lahijan*, another considerable town in Ghilan, with 15,000 inhabitants, 35 miles E. by S. of Resht. *Sari*, the capital of Mazanderan, is a large town surrounded by a mud wall two miles in circuit, with 40,000 inhabitants. *Amol*, 40 miles west of Sari, on the river *Heraz*, 12 miles from the Caspian, has a bridge of 12 arches over the river, and the ruins of a mausoleum erected by Shah Abbas the Great to his maternal ancestor Meer Buzurg, king of Sari and Amol, in 1378. *Balfarush* or *Balfarush*, once a flourishing commercial town between Amol and Sari, on the river *Bawul*, at the mouth of which is its port of *Mashed-i-Sir*. The population, in 1822, was estimated at 300,000; but before 1834, it was reduced by cholera and loss of trade to about 30,000. *Astrabad*, the capital of the small province of the same name, has a circumference of three miles, and had once a population of 40,000. *Ashruf*, 60 miles west of Astrabad, was the favourite residence of Shah Abbas the Great.

KHORASSAN or *KHORASAN*, is a large province of very fluctuating and uncertain limits, forming the north-eastern portion of Iran. The mountain range of Elburz, after passing to the south of the Caspian Sea, here spreads out into a great width, in some places extending to 200 miles, and is di-

vided into ridges with intervening valleys which communicate with each other by defiles or passes, and form an extensive aggregate of districts, many of which are well cultivated and populous. Towards the northern desert this mountain region presents a considerable declivity, called *Atak* or *Damān*, i. e. the skirt; but towards the deserts of the interior it declines less abruptly. Speaking generally, Khorassan, formerly one of the richest provinces of Iran, is now almost a wilderness, thickly strewed with the ruins of large towns, and other vestiges of former prosperity. For many years it was in a state of anarchy, and divided among petty chiefs, who by turns conciliated or defied the king of kings. It has been again reduced to obedience; but, under so mischievous a system of government as now exists in Persia, it seems to have little chance of recovering its former prosperity. *Mushed* (*Mesched* or *Meschid*), the capital, is celebrated for, and owed its prosperity to, the tomb of Reza, one of the twelve Imams, descendants of Ali (see *anté*, p. 124), which is contained in a most splendid mosque. Beside the remains of the Imam lie those also of the celebrated Caliph Haroun-al-Raschid, who died at *Tis* or *Toos*, a city now in ruins, a few miles to the north-west. Mushed is, in consequence, the resort of great numbers of pilgrims, and had, not many years ago, a population of about 100,000; but, when visited by Mr. Fraser in 1834, it was nearly depopulated; the few remaining inhabitants were reduced to poverty; thousands of beggars at the point of starvation annoyed the traveller; and even the mosque itself, shorn of its glories, was falling to ruin. *Kabūchan*, 100 miles N.W. of Mushed, is a large town of 15,000 inhabitants, and is the seat of the most powerful of the Kurdish chiefs of Khorassan. *Nishapur*, 90 miles E. by S. of Mushed, once a large city, now contains only 5000 inhabitants. *Kelat* or *Kūlat-Nadiri*, the stronghold of Nadir Shah, is a valley 50 or 60 miles long, by 12 or 15 wide, surrounded by mountains so steep, that a little help from art has rendered them quite impassable, the rocks being scarped into the form of a huge wall. A stream runs through the valley, and its entrance and outlet, the only points of access, are fortified by walls and towers which are deemed impregnable. The valley contains a number of villages, and 2000 families. *Mere* or *Meru-Shah-Jehan*, once a famous city of Khorassan, is now a mass of ruins, beyond the present limits of the kingdom. *Turshiz*, *Tubhus*, *Serukhs*, and *Tabas*, are all large towns, with some trade, to the south and south-east of Mushed. *Herat*, 200 miles S.E. by E. of Mushed, is a large city, with a population of about 45,000, is well fortified, and about three quarters of a mile square, or three miles in circuit. It is divided into four quarters, by four long bazaars, covered with arched brickwork, which meet in a small domed square in the centre of the city. The city contains altogether about 4000 houses, 1200 shops, 17 caravanserais, 20 baths, numerous mosques, and fine public reservoirs of water. It is, however, one of the dirtiest cities in the world. The necessities of life are plentiful and cheap; and the water and the bread of Herat are proverbial for their excellence. The climate is said to be salubrious, though the heat is excessive for two months of the year, and though in winter there is much snow. Herat is the emporium of the trade between Persia and India. For many years it belonged to the late kingdom of Cabul; but, since the downfall of that kingdom, it has been possessed by a branch of the Durrane royal family, as an independent sovereignty. It is still, however, claimed by the king of Persia as a part of Khorassan; but he was recently foiled in an attempt to make himself master of it. The town is situate in a beautiful and extensive plain, or long valley, watered by the *Hurairūd*, which runs northward to the desert, where its termination is unknown.

IRAK-AJEMI or PERSIAN IRAK, is the largest and one of the most valuable provinces of the kingdom. It forms part of the great table-land; and is almost everywhere intersected with valleys of indefinite length, but seldom exceeding 10 or 15 miles in width. The hills which border them are barren, and stretch almost invariably west and east, gradually sinking into the desert, or extending into Kerman and Khorassan. The valleys are nearly destitute of water, except after the melting of the snow, and only a small part of them is cultivated. The north-western part of the province forms an elevated plain, varied with gradual ascents and descents, and furrowed by deep valleys in which the rivers flow. *ISPAHAN* or *ISFAHAN* (the *SPAHAWN* of old travellers), the capital of Iran under the Sophi kings, and at that time a very large and splendid city with nearly a million of inhabitants, is now deserted by the court, and a great part of it is in ruins. It stands in a plain 4140 feet above the level of the sea, upon the banks of the Zeinde-rūd, which is crossed by three fine bridges, and is surrounded by a mud wall 24 miles in circuit. Nothing can exceed the fertility and beauty of the neighbouring valley, and the first view of the city is still very imposing. A nearer view however dispels the illusion; though much still remains of wealth, it not of splendour. Isfahan has still a considerable trade, and a population of about 150,000. On the south side of the river are the two suburbs of *Istifanuk* or *Little Isfahan*, and *Julfar*; the latter named after a town of Armenia, whose inhabitants were transported hither by Shah Abbas the Great. **TEHERAN** or **TEHRAN**, the modern capital of Iran, and during forty years the residence of the late king Futtey-Ali, 220 miles N. of Isfahan, is four miles in circuit, and fortified with a mud wall, towers, and a wide and deep ditch. Its only important edifice is the ark, a fortified palace or citadel. The population varies with the season from about 10,000 to 60,000. Teheran stands in a gravelly plain 3786 feet above the level of the sea, which is bordered by a high range of mountains. A gazette was commenced at Teheran in 1837, under the auspices of the Shah. About 40 miles E.N.E. of Teheran, is *Demavend* or *Denavend*, an enormous volcanic peak, rising 14,300 feet above the level of the sea. About 10 or 12 miles S.E. of Teheran are the extensive but almost obliterated remains of *Rhe* or *Rhages*, the contemporary of Nineveh and Ecbatana, the capital of the Parthian kings, and the birthplace of the great caliph Haroun-al-Raschid. *Casbin*, (*Casvin*, *Kazvin* or *Casveen*), 96 miles W.N.W. of Teheran, one of the largest and most commercial cities of Iran, is situate in a large plain or valley, 20 miles in breadth, which affords good pasturage, contains numerous villages, and is in some parts well cultivated. The town is approached through a vast extent of vineyards and orchards inclosed by high walls. The grapes of Casbin are considered the best in Iran; and its pistachio nuts are also abundant and highly esteemed. The town is inclosed by a mud wall with towers, and is said to exceed Teheran in size, though it is not so populous. It contains whole streets lying in ruins, and has no building of any note. Population about 40,000. *Sultaniah*, 60 miles W.N.W. from Casbin, is a mere village amidst the ruins of a great city. In summer, the late king and his court, accompanied by a great part of the inhabitants of Teheran, used to encamp on this plain of Sultaniah to avoid the heat of the plain of Teheran. About 70 miles E. of Teheran, on one of the mountains of the Elburz, is the fortress of *Firūz-kūh*, which is considered impregnable, and is of great importance as commanding the most accessible pass leading to Mazanderan. *Zenjan*, 90 miles W.N.W. of Casbin, is a considerable town with 8000 inhabitants, at the junction of the roads which lead from Teheran and Hamadan to Tabriz. *Hamadan*, supposed by some to be the ancient *Ecbatana*, 270 miles N.W. by N. of Isfahan, and 198 W. by S. of Teheran, stands at the base of Mount *Eleend* or *Elwand*, the ancient *Orontes*, and is merely a collection of clay-built houses, with 50,000 inhabitants. The sides of the hill abound with antiquities; but the only buildings which are entire are the tomb of the celebrated physician Avicenna, and the supposititious tomb of Esther and Mordecai. Hamadan is the centre of a considerable trade; has extensive and well furnished bazaars; and a very active and bustling population. *Kungawar* or *Kenghevar* (*Concobar*), a small town 20 miles W. by S. of Hamadan, contains the ruins of a splendid temple of a goddess, corresponding to the Greek Artemis and the Roman Diana. In the same direction, at the distance of 52 miles, is *Kermanshah*, a thriving city with 35,000 inhabitants, adorned with many handsome public buildings. It is noted for the manufacture of car-

pets; and the vicinity is celebrated for the production of wheat and superior mules. About 90 miles W. of Kermanshah, is *Kasr-i-Sherin*, a village, containing the remains of two magnificent palaces built by Khosroe-Purviz, one of the Sassanian kings, as a retreat for himself and his beloved wife Sherin; it is 115 miles N.E. of Baghdad. At *Besitan*, 20 miles E. of Kermanshah, are the remains of a large piece of sculpture on the face of a rock, supposed to represent Semiramis and her guards, but so much defaced that scarcely any outline can be traced; the figure and also an inscription of nearly 1000 lines of arrow-headed letters, exhibiting the religious vows of Darius the son of Hystaspes, after his return from the destruction of Babylon, on the revolt of its governor. *Koom* or *Kum*, a large but ruinous town, the abode of a fanatical, ignorant, and bigoted people, is rich only in shrines and priests, and contains more domes and minarets than inhabited houses. It is situate 175 miles W. by N. of Ispahan. As a place of pilgrimage it ranks next to Kerbelah and Mushed; the principal object of attraction being the tomb of Fatima, the sister of the Imam Reza. From the holiness of its saints and priests, Koom has acquired the title of *Dar-al-Murshed* (the abode of the pious). *Kashan*, 105 miles N. by W. of Ispahan, a neat, populous, and busy town, situate in a well-cultivated and fruitful country, is famous for its manufactures of silk and cotton stuffs, brocades, carpets, and copper-wares. *Yezd*, 260 miles E. of Ispahan, situate in a dry but well cultivated and fruitful oasis, nearly encircled with mountains, and connected with the fertile tracts eastward of Ispahan, by a series of small oases or islands in the desert, is one of the most prosperous commercial and manufacturing cities of Iran. It is a great mart for the interchange of commodities, between eastern and western Persia; and its own manufactures of silk and other stuffs, felts, sugar-candy, and sweetmeats, enjoy great repute, and command a ready sale. Population about 50,000, among whom are more than 3000 families of Guebres, followers of the religion of Zoroaster, an industrious and patient race, who are busily occupied in trade and agriculture. The south-western part of Irak is a mountainous region named *Louristan*, inhabited by nomadic and pastoral tribes, part of whom are now classed under the general name of *Bukhtiari*. It contains the towns of *Korambad*, *Hissar*, *Burojird*, and *Nahavend*.

KHUZISTAN, the ancient **SUSIANA**, lies along the eastern or left bank of the Tigris and Shat-el-Arab, at the head of the Persian Gulf. A large proportion of the province is little better than a forsaken waste; and the southern part of it is a desert arid country called *Chah*, which is possessed by an independent Arab tribe. The mountainous portion, however, to the north and east, contains several fertile valleys of great extent, but only partially cultivated. *Shuster*, the capital, is a well-built town, with stone houses, but narrow and dirty streets, and contained about 15,000 inhabitants before it was nearly depopulated by the plague in 1832. *Dizful*, between Shuster and Sus, is now considered the principal town of the province, and may contain about 20,000 inhabitants.—(*Jour. R. Geog. Soc.* IX. 671.) At *Sus* or *Shus*, 80 miles N.E. by N. of Kurnah, and 37 W. by S. of Shuster, are the ruins of a great city six or seven miles in circumference, which present the appearance of irregular mounds of bricks and broken pottery. *Sus* contains also a modern building called the tomb of Daniel. *Susan*, on the Kuran, 160 miles N.E. by E. of Kurnah, and 90 E. of *Sus*, also contains the ruins of a great city, and the tomb of Daniel, called *Dan-yah-Akbar*, or the Great Daniel, to distinguish it from the structure at *Sus*. Major Rawlinson is of opinion that *Susan* and not *Sus* is the *Shusan* of Scripture, though probably both places represent the *Susa* of the Greeks at different epochs.—(*Jour. R. Geog. Soc. Lond.* IX. 85, &c.) *Ahwaz*, on the banks of the Kuran, 50 miles S. by W. of Shuster, is a small, mean, and solitary town of about 1600 inhabitants, in the midst of a mass of ruins, the remains of what was a large city in the days of the Abbasside Caliphs. *Dorak*, on the banks of the Jerahi, a wretched collection of date-tree huts, surrounded by a mud wall, and containing about 8000 inhabitants, is the capital of the *Chah* district. *Haweeza* or *Haviza*, on the *Kerah* or *Kerkhah* river, 85 miles S.W. of Shuster, is a considerable town, surrounded with a fortified wall, and contains a fort or castle. *Rum-Hormuz*, the ruins of an ancient city in a beautiful valley of the same name, 60 miles long by 6 or 8 broad, watered by the Jerahi, 100 miles S.E. by E. of Shuster.

FARS or **FARSISTAN**, the original **PERSIA**, lies on the north-eastern side of the gulf, and extends towards Irak and Kerman. The northern and north-western portions of the province are rich in soil, and covered with wood and verdure, but contain scarcely a human inhabitant. The eastern portions are sandy and arid. The northern section, bordering on Irak, consists principally of rocky mountains, which enclose long narrow valleys, many of which afford excellent pasture to the herds and flocks of the wandering tribes who possess it, and even yield grain where the means of irrigation exist. The plain, which extends along the northern side of the mountainous region, has a soil strongly impregnated with salt, and contains the great lake of *Bakhtegan*, with several of smaller dimensions. It would form a portion of the great desert, were it not separated from it by a series of oases, extending east and west, between 29° and 30° N. lat., and enclosed to the north and south by two low ridges of rocky hills. This narrow tract, called the *Nirmanshir*, produces some grain, and is particularly rich in fruit, some kinds of which reach great perfection. *Shiraz*, the capital, is situate in a plain 4284 feet above the level of the sea, on the *Roknabad*, a small stream, which empties itself into a salt lake. It has never at any time been remarkable for its splendour or fine buildings, but is renowned for its vines. Shiraz contains the tombs of Sadi, the moral philosopher, and Hafiz, the lyric poet, the Anacreon of Persia, whose works contain the most glowing allusions to the pleasures of Shiraz; but all is now changed. It had been for a long time rapidly falling to decay, and its ruin was completed by an earthquake in 1823. The town is about six miles in circumference, but great part of its area is covered with ruins. The houses are generally small, and the streets narrow and dirty. The ground has been raised, and the climate changed for the worse. The population is much reduced from its former numbers. Lat. $29^{\circ} 37'$, long. $52^{\circ} 41'$; 220 miles S. by E. of Ispahan. *Kausroun* or *Kazerun*, 50 miles W. from Shiraz, is a town of some importance, in a fine and well-watered valley, 2772 feet above the level of the sea; but its walls enclose more ruins than houses, and its population is only about 3000 or 4000. *Abu-Shehr* or *Bushire*, on the gulf, the principal sea-port of Persia, in lat. $28^{\circ} 54'$, long. $50^{\circ} 52'$, 120 miles W. by S. from Shiraz; population about 10,000. The harbour and roads are capable of containing any number of small native vessels and boats; but neither in the inner harbour, where vessels under 18 feet water may lie, nor in the outer roads, is there sufficient depth for vessels to anchor at a convenient distance from the shore, nor sufficient shelter to protect them against the prevailing winds. The town is built at the end of a sandy peninsula, and, from the anchorage, has rather an imposing appearance; but is really a mean and dirty place. The water near the town is brackish, but sufficiently wholesome. Ruins of *Shapur*, 15 miles N. E. of Kausroun, once the capital of Persia, in a well-watered plain. Plain of *Merdasht*, 35 miles N.E. from Shiraz, contains the ruins of *Persepolis* or *I takhar*, the principal part of which is called *Chilminar*, or the 40 pillars; also *Takht-Jemshedd*, i.e. the throne of Jemshedd. A few miles distant are remarkable excavated hills called *Naksh-i-Roustan* and *Naksh-i-Rejid*, which are supposed to be tombs of Sassanian kings. *Murghab*, 49 miles N.N.E. from Istakhar, contains numerous ancient remains, apparently coeval with those of Persepolis, and among them a building, generally considered to be the tomb of Cyrus, but called by the natives the Mosque of Solomon's Mother. It is in perfect preservation, but the body of the great conqueror of Asia is gone. The ruins which surround it are supposed to be those of *Pasargade*. *Darabgherd*, a town with 15,000 inhabitants, 135 miles E. by S. from Shiraz; *Saza* or *Tesa*, 75 miles E. by S.; *Firozabad* or *Feruzabad* 60 miles S.; *Yezdikhast*, a considerable town on the borders of Irak, 140 miles N. by W. *Congoon*, on the coast

east of Cape Verdistan, is said to contain 6000 inhabitants, who are subjects of the Imam of Muskat and carry on a considerable trade. *Beekaban*, 130 miles W.N.W. of Shiraz, is a large town 3 miles in circumference, and said to contain 10,000 inhabitants.

LARISTAN is a small province on the northern side of the gulf near its mouth. The lower part of it is an arid desert, with a surface diversified by rocky mountains and valleys of sand and salt; but the northern region contains a number of fine valleys, which produce dates and other fruits, and also grain. *Lar*, the capital, is a town of 12,000 inhabitants, with a castle situate on a hill, and contains the finest bazaar in Persia. *Assaloo*, *Nahend*, *Shevar*, *Nackiloo*, *Jezzar*, *Cheroo*, &c. are all towns on the coast of the Persian Gulf. *Farem*, and *Forg* are inland.

KERMAN lies to the east of Fars and Laristan, having the Persian Gulf on the south, and the great deserts to the north. It is exceedingly mountainous and barren, is destitute of rivers, and but for a few springs in the hills, and the subterraneous aqueducts, the inhabitants could not exist. Water is collected with extraordinary pains, and, after all, is not more than sufficient to irrigate a very trifling portion of the soil; although snow lies on the mountain tops during the greater part of the year. In the desert part of the province, the ground is so impregnated with salt, that sometimes not a blade of grass is to be found in a stretch of 90 miles, and not a drop of water. In the whole tract there is but one green spot, where the town of *Khubbees* was built, lat. $31^{\circ} 40'$, long. $58^{\circ} 14'$, for the purpose of facilitating the trade between the northern and the southern provinces. But the town has gone to decay, and its inhabitants have become robbers. **KERMAN**, the capital, lat. $29^{\circ} 51'$, long. $56^{\circ} 13'$, 220 miles E. from Shiraz, 340 miles S.E. by E. from Ispahan, stands in the centre of a large well-cultivated plain, and has a population of 30,000. The wool of Kerman is celebrated for its fineness, and its manufactures of shawls, felts, and matchlocks, are in request all over Iran. *Gambroun*, *Gombroon*, or *Bender-Abasi*, on the shore of the Persian Gulf, once a flourishing commercial town, is now a collection of huts, inhabited by 3000 or 4000 Arabs. *Krook*, *Nuheimabad*, *Regan*, *Jumalee*, *Bumm*, *Tcheroot*, all to the south-east of Kerman, in the district of *Nürmanshir*, the most fertile part of the province, a tract or series of oases, extending east and west 90 miles by 30, where the soil, consisting of a rich black mould, and watered by mountain streams, yields an abundant produce. *Rayun*, 40 miles S.E., *Killaheirtga* 70, and *Shuhri Bababeg*, the ruins of a once splendid town, in the midst of a profusion of the most prolific fruit gardens, 105 miles W. from Kerman.

SEISTAN, in the middle of the eastern border of the kingdom, is a small province, and consists of a desert of sand and rocks, through which the river *Helmund* or *Hermund*, from Afghanistan, flows into the sea or lake of *Durrah* or *Zurrah*. This lake is about 60 miles in length by 35 in breadth, and covers an area of about 1100 square miles. The water is slightly brackish, but abounds with fish and wild fowl. In the dry season it is shallow, and overgrown with reeds. In the middle of it is a fortified island named *Koh-i-zur*, where the chiefs of Seistan used to take refuge when their country was invaded. The province is now in the possession of independent wandering tribes, whose chiefs live in fortified villages on the banks of the *Hermund*, and are frequently engaged in plundering expeditions.

ISLANDS.—*Kharak*, in the Persian Gulf, 45 miles N.W. of Bushire, in $29^{\circ} 14' 45''$ N. lat., and $50^{\circ} 19' 19''$ E. long., is five miles long and two broad, with excellent water, and contains an old Dutch fort, and a good harbour. The soil is light and productive; millet, onions, cucumbers, grapes, melons, and figs, grow in great abundance. About a third part of it is cultivated. The island was recently taken possession of by a British force from Bombay. *Kishme*, *Kishm*, or *Jism*, called also by the Arabs *Jezirah-Tauilah* or *Jezirah Diraz* (i. e. long island), is situate at the entrance of the Persian Gulf, the 50° E. long. running nearly across the middle of it. It is 54 miles long, by 20 at its greatest breadth, and is separated from the mainland of Persia by *Clarence Strait*, which is three miles wide at its narrowest part, but expands to 13, and is studded with islets. The south side of the island is occupied throughout by a range of hills; the north side consists of arid plains and deep ravines. The greater part of the surface is sterile, and has in some places a crust of salt. The northern portion, however, is somewhat fertile and populous; the total population, about 5000, are employed in fishing, cultivating the soil, and making cloth. They reside chiefly in villages and hamlets scattered along the coast. The only towns are *Kishme*, with 2000 inhabitants; *Laft*, and *Basidoh* or *Basidore*. The last named town is situate at the west end of the island, in lat. $26^{\circ} 39'$ N., and $55^{\circ} 22'$ E. long; and recently was the naval station of the Bombay squadron in the gulf, and the residence of its commodore. *Ormuz* or *Hormuz*, eastward from Kishme, near the north shore, under a lofty mountain called *Jebel Shamal* (Mount North), whose summit is clad with snow even in spring. *Ormuz* is 12 miles in circuit, nearly circular, and its appearance from seaward is broken and rugged. The surface is destitute of soil, and the conical shape and isolated positions of the numerous small hills which cover it, give it a highly volcanic aspect. The harbour on the north-east side is secure and convenient; the fort is situate on a projecting point of land, separated from the main body of the island by a moat, and is still in good condition. There are no fresh-water springs in the island. The rugged hills which line the eastern shore, are covered at one part, to a considerable distance from their bases, with a crust of salt, in some places clear as ice, and in others partially covered with a thin layer of dusky red-coloured earth, tinged with oxide of iron, with which the whole surface of the island is deeply impregnated. *Ormuz* once contained a splendid and populous city, one of the principal commercial settlements of the Portuguese, during the period of their dominion in the Indian Ocean; but the city has entirely disappeared. The island is now in possession of the Imam of Muskat, who farms it from the king of Persia, and keeps in the fort a small garrison. Population in 1827, when the island was surveyed, about 300, whose only employments were collecting salt, and fishing. *Anjur*, on the south side, and *Larek*, on the east side of Kishme, are small, sterile, volcanic-looking islands, the latter inhabited only by a few fishermen. The *Great* and the *Little Tomb* (*Tunb*), two uninhabited islands, 24 miles S. of Basidoh; the former well stocked with antelopes. Along the coast northward are the islands of *Pelior*, *Keish*, *Inderabiu*, *Busheab*, and *Kenn*.

RIVERS.—The rivers of Iran are few and unimportant. The *Kizilozun* rises in Azerbaijan, and flows through Ghilan into the south-west corner of the Caspian Sea; in the lower part of its course it takes also the name of *Suffeid rud*, or the White river. In Azerbaijan it flows in so very deep a channel that its waters cannot be used for the purposes of irrigation, and it enters Ghilan by a deep gorge, which separates the Elburz from the mountains of Massula. This is the famous *Pass of Rudbar*, about 30 miles long, through which the river dashes with incredible velocity. The *Tedjen*, in Khorassan, near Mushed, flows north-eastward into the desert, where it is lost. The *Zeinde* waters the valley of Ispahan, and flows through that city to the south-east, where it terminates in the desert. The *Kür* or *Bundemir*, in Fars, runs into Lake Bakhtegan. The *Kuran* and *Jerahi* fall into the Persian Gulf. The *Haweza* or *Kerah* or *Karazu*, is an affluent of the Shat-el-Arab. The *Diala*, in Kurdistan, is an affluent of the Tigris. The *Gourgan* and the *Attruck*, both flow into the south-eastern corner of the Caspian Sea, to the north of Astrabad. The *Murg-ab* rises from the Paropamian mountains to the north-eastward of Herat, and flows to the north-west, where it is lost, like so many others, in the Turcoman desert. The *Shur-rud*, in Kerman, flows into the Persian Gulf, opposite the island of Kishme. The names of Persian rivers sometimes terminate with the syllable *rood* or *rud*, which signifies river.

CAVES.—*Ferdistan*, in the Persian Gulf; *Bombarak* and *Gask*, on the coast of the Gulf of Oman.

AFFGHANISTAN,

The north-eastern portion of Persia, is bounded on the north by the ridges of the Himalayas and Hindoo-koh, and the Paropamisian mountains; on the south by Beloochistan; on the east by the river Indus; and on the west by Khorassan and Seistan; measures from west to east about 630 miles, and from north to south, 450; and contains an area of 240,000 square English miles.

Affghanistan is a congeries of high valleys and table-lands, which are separated by lofty mountains. The Hindoo-koh and Himalayas, which bound it on the north, appear, in some places, to form four distinct ranges, the most northerly of which is always covered with snow, though not of equal elevation throughout. In some places the range is surmounted by peaks of great height and size, which do not taper gradually to a point, but rise at once from their bases with amazing boldness and grandeur. The height of one of these peaks was ascertained by Lieutenant Macartney, in 1809, to be 20,493 feet. Koh-i-baba, a remarkable ridge with three peaks, in longitude 68° E., rises to 18,000 feet: it was crossed on the east side by Lieutenant Burnes, in 1832, by the pass of *Oma*, the summit of which is 11,000 feet high; the pass of *Hojeguk* is 12,400 feet; and beyond these lies the pass of *Kaboo*, which is 1000 feet higher. The secondary ranges decrease in elevation according to their distance from the main trunk; the tops of the highest are bare; but their sides and the whole of the lower ranges are well wooded. The minor ranges are covered with snow for several months in the year; their tops have few trees; but their sides are covered with forests of pine, oak, and wild olive. Lower down are many valleys, watered by clear streams, whose banks afford a profusion of European fruits and flowers, which grow wild, in the utmost variety, perfection, and abundance. The hills bear many pretty sorts of fern and similar plants, with several elegant shrubs; and even the rocks are rendered beautiful by the rich verdure of the mosses which cover them. This region is called the *Kohistan* or hill country. All the valleys of the range open ultimately into the great valley of the Cabul river, which extends east and west about 200 miles, and carries their waters to the Indus. The Hindoo-koh may be said to terminate westward with the Koh-i-baba, beyond which the range declines in elevation, and is lost in the Paropamisian or Ghor mountains, which extend about 350 miles east and west, with a breadth of 200, the whole space being a congeries of mountains of difficult access, and little frequented. They are so much lower than the Hindoo-koh, that no continuous line of perpetual snow can be traced among them. On the south side of the Cabul valley, to the west of Peshawar, the *Suffeid-koh* or White Hill, called also *Sprengthur*, rises to the height of 14,000 feet above the level of the sea; and is only separated by the river from the projecting offsets of the Hindoo-koh. To the south of this mountain, a range extends through several degrees of latitude, forming the eastern limit of a mountainous country which reaches to the desert of Seistan; and the western limit of the basin of the Indus, to which it descends with a rapid slope, terminating in an arid plain, called the *Damin* or Skirt. The elevation of the range is considerable, but the Suffeid-koh is the only peak which retains snow throughout the year. In lat. $31^{\circ} 39'$ it forms the lofty mountain of *Cussay Ghur*, of which the *Tukht-i-Suleiman* (Solomon's throne) is the highest peak, which rises 11,000 feet above the level of the sea. Snowlies upon it for three months, and on the neighbouring mountains for two. To the westward are two smaller parallel ranges, both lower than the most easterly or principal range, the last of which, however, is intersected by valleys which open a passage to the Indus for the waters which rise between it and the second range. The latter thus forms the watershed between the Indus and the rivers which flow westward to the desert of Seistan, and throws out several branches in that direction, which form the high valleys of Pisheen, &c. The Suleiman or eastern range is described as being composed of a hard black stone; the next, of a red stone equally hard; and the third or most westerly, of a friable grey sandstone. Their summits are all bare; the sides of the highest range are covered with pines; those of the second with olives and other trees; but the lowest is quite bare, except in the hollows, which are overspread with thickets of brushwood. Westward from these mountains, the country gradually becomes more and more bare and sterile, till at last it terminates in the deserts of Seistan and Khorassan.

In the lower portions of the eastern valleys the summer heat is sometimes as great as in the hottest parts of India; but it does not continue so long, and is compensated by a much colder winter. In the western districts of the country, where the land is higher, the heat is less excessive. In the north, the temperature is various, as might be expected from the differences of elevation and from other circumstances. The low parts are hot, the middle temperate, and the high cold; but speaking generally, the average heat of the year does not reach that of India, nor is the cold so great as that of England. The north-eastern portion of Afghanistan participates in the Indian monsoons or rainy season; but they are here greatly modified, and very different from that incessant and drenching rain which prevails in the southern provinces of Hindostan. These periodical rains diminish to the westward, and in the valley of Peshawar the monsoon only appears in some clouds and showers; in the valley of Cabul it does not extend beyond Lughnan; but in the southern mountains, called *Coond*, it forms the principal rain of the year; while, in the southern regions, it is felt as far west as the western boundary of Mekran. There are other rains or snows that fall about Christmas, which, in the greater part of the country, are of more value to husbandry. The monsoon rains are indeed less important than those of spring, which are said to come from the west. Candahar has a hot climate; no snow falls; and the little ice which forms at night on the edges of the streams melts before mid-day. To the north and east, as the country rises, the cold increases, and the communication between Cabul and Candahar is often interrupted by the snow. At Ghuznee the cold is sometimes excessive; and there are traditions of that city having been twice destroyed by falls of snow, in which all the inhabitants were buried. The prevailing winds are from the west.

Gold does not seem to be found in Afghanistan, except in the streams which flow from the Hindoo-koh. Silver is found in small quantities in the country of the Kafirs; and whole cliffs of lapis-lazuli overhang the river of Kashkar, to the north of the Euzofye country. There are also lead, antimony, iron, sulphur, rock-salt, and alum, and indications of copper. Saltpetre is made everywhere from the soil. Silver, copper, iron, lead, antimony, lapis-lazuli, and asbestos are found in the mountains around Cabul, and the sand of the Kirman river is washed for gold. The most common trees on the mountains are pine, oak, cedar, and a sort of gigantic cypress; also walnuts, wild olives, wild grapes, and barberries; in the plains are found, the mulberry, the tamarisk, the willow, the plane, and the poplar; in gardens are roses, jessamines, poppies, narcissuses, hyacinths, tuberoses, stock, and other English kinds of flowers, and many of them are found wild. Lions are very rare, if found at all; tigers are found in most of the countries to the east of the Suleiman range, and these, with leopards, are to be met with in most of the woody parts of Afghanistan. Wolves, hyenas, jackals, foxes, and hares are common everywhere; bears are found in all the woody mountains; wild boars are rare; and the wild ass appears to be confined to the Düranee country, Gurmseer, and the sandy country to the south of Candahar. Elks, and many kinds of deer are found in all the mountains; but antelopes are rare, and are confined to the plains. The wild sheep and wild goat are common in the eastern hills, which contain also porcupines, hedge-hogs, and monkeys, mungoses, ferrets, and wild dogs. The principal domestic animals are horses, ponies, asses, mules, camels, buffaloes, and humped beeves. The great

stock of the pastoral tribes consists of sheep of the broad-tailed species. The greyhounds are excellent, and are bred in great numbers among the pastoral tribes, who are very fond of hunting; pointers also are not uncommon. There are also cats, particularly a long-haired species called *Burak*, which are exported in great numbers, and everywhere called Persian cats, though they are not numerous in that country, and are never exported from it. Of birds, there are eagles, hawks, falcons, herons, cranes, storks, wild ducks, geese, swans, partridges, quails, pigeons, doves, crows, sparrows, cuckoos, magpies, and many other species. The snakes are chiefly innocent; the scorpions of Peshawar are well known for their size and venom, yet their bite is seldom or never fatal. There are no crocodiles; turtles and tortoises are common. Great flights of locusts are not of frequent occurrence. Bees are common, and mosquitoes, which are less troublesome than in India.

The origin of the Afghans, and of the name by which they are designated, is uncertain. It is only through the Persian that the name is known to the people themselves, and it is probably of modern introduction. The name they themselves give to their nation is *Pushtun*, in the plural *Pushtanneh*, whence probably the name of *Patan*, by which they are known in India. They consider themselves to be descended from Affghan the son of Irmia or Berkia, a son of Saul, king of Israel. They call themselves accordingly *Beni-Israel*, though they consider the term *Yahudee* (Jew) as one of reproach. According to the native tradition they were transplanted by Nebuchadnezzar, after the overthrow of the temple, to Ghore, a town near Bamean, and lived as Jews till the first century of the bejah, when Khaleed converted them to Islam. The Afghans have all the appearance of Jews, and many believe them to be really the descendants of the captive ten tribes of Israel, but the matter is at the best very uncertain. They are divided into a number of tribes, which possess each a distinct territory, and continue in a great measure unmixed. Each tribe has branched into several divisions, and in the more scattered tribes, these branches have separated, and are each governed by its own independent chief; they retain, however, the common name, and an idea of a community of blood and interests. This operation of subdividing is repeated so often, that the last offshoot sometimes contains but a few families, with a chief who is subordinate to the leader of the division in which it is comprehended. Each branch has its common ancestor. The chief of a tribe bears the title of khan, and is generally elected by the people, who pay some attention to primogeniture, but more to age, experience, and character. The chief of a subdivision is always elected by the people from the oldest family which it contains, except in the lowest subdivision, where the superiority is often natural, as when an old man is the head of 10 or 12 families, formed by his sons, nephews, and grandchildren. The internal government of the tribes is conducted by the khans, and assemblies of the heads of divisions called *jirgas*. The khan presides in the principal *jirga*, which is composed of the chiefs of the great branches of the tribes. Each of these presides in the *jirga* of his own division, which is formed in a similar manner of the chiefs of the subdivisions, who again hold their *jirgas*. This system of government is, however, so often deranged by circumstances, that it is seldom found in full operation; and must therefore be considered rather as the model upon which all the governments of the tribes are formed, than a correct description of any one of them. The members of the tribes are naturally attached to the tribe and its members, but their attachment is rather to the community than to the khan; and though, in the opinion which they entertain of their khan, the idea of a magistrate set up for the public good is certainly mixed with that of a patriarchal and natural superior, yet the former impression will always be found to be the strongest. Accordingly, the power of life and death is rarely possessed by a khan, and it is but seldom that his personal interests would lead a tribe to take any step inconsistent with its own honour or advantage. An assemblage of many such commonwealths composes the Affghan nation. Each tribe has its own territory; and they may be arranged geographically in the following order:—Eastern tribes,—the *Euzofzyes*, *Otmankhail*, *Turcolanees*, *Kyberees*, the tribes of the plain of Peshawar, and these of *Bungush* and *Khuttuk*, all classed under the general name of *Berdurani*, inhabit the north-eastern part of the country between the Himalayas, the Indus, the Salt range, and the Suleiman range. The tribes of *Esaukhail*, *Sheetooks*, *Bunnises*, *Dower* and *Kh-isteer*, are found in the neighbourhood of the Salt range. The *Daudukail*, *Meankhail*, *Babirs*, *Sturani*, and *Gundepir* occupy Damán. Central tribes:—*Jangées*, *Poorées*, *Jadrans*, *Fizerees*, *Minheils*, *Munakhail*, *Zimurrees*, *Sheranees*, *Spintereens*. Western tribes:—I. The *Durani* or *Dooraunees* possess a tract of country of about 400 miles in length by 120 or 140 in breadth, extending from Herat to the south-east of Candahar, where it appears to be bounded by the range of mountains called *Kojeh-Amran*, which is so high as to be covered with snow for three months in the year. To the south of *Kojeh-Amran* is *Pisheen*, a sort of valley or table-land, 80 miles from N.E. to S.W., its greatest breadth being about 40 miles, which is inhabited by the *Tora-Tereans*, who are closely connected with the Dooraunees both by descent and friendship. Their principal employment is agriculture, but a great proportion of them is occupied between Candahar and upper Sinde, in the business of carriers. II. The *Ghiljes* extend from the south-east of Candahar to the Kohistan or hill country, north of Cabul, and eastward to the heights of Jellalabad and the range of Suleiman, occupying a tract of about 350 miles in length by 150 in breadth. To the south of the *Ghiljes* are the *Caukers* or *Kaukers*, whose country forms a square of about 100 miles, extending westward from the Suleiman range, and separated from Beloochistan by the pass of Bolan. They are divided into at least 10 clans, without any chief of the whole tribe. All the tribes above mentioned possess a country of their own, but the *Nassers* live in scattered parties, wandering in summer in the western deserts of Afghanistan, and proceeding in winter, in a collected body of 30,000, with their herds and flocks, into the warm region of Damán.

After the death of Nadir Shah, in 1747, one of his principal officers, Ahmed Abdallee, a *Durani*, fought his way to Candahar, where he established a kingdom, which subsequently included all Afghanistan and Beloochistan, extending westward from the Punjab and the Indian desert, to the deserts of Khorassan and Kerman, and northward from the Indian Ocean to the river Oxus. He was succeeded by his son Timúr Shah, and the latter successively by his two sons Shah Zeman and Shujah-ul-mulk, the latter of whom was the king who received the British embassy at Peshawar in 1809. Sujah was subsequently deposed, and expelled from the country by the brothers of his hereditary vizier Futtey-khan, of the Barukziya family, who continued to rule over Afghanistan till 1840, when the kingdom was recovered for Shah Shujah by the British forces from India. In November 1841, a revolt of the Afghans took place at Cabul; the British envoy and other superior officers were assassinated, and the troops, obliged to abandon the city, mostly perished on their way to Jellalabad. Their fate was avenged by the advance of the British armies to Cabul in 1842; but the country has been subsequently abandoned.

The northern parts of Afghanistan, including the hill country of the Paropamisian range, nearly all the way from Cabul to Herat, are occupied by the *Hazarahs* or *Huzaras*, a simple people, who differ much from the Afghans. In physiognomy they more resemble the Chinese, and have square faces and small eyes. They are of Mongol or Tartar descent, and one of their tribes is now called the Tartar-Hazaras. The Huzaras were subjects of the kingdom of Cabul, but latterly they have been almost quite independent, owing their independence and their safety to the natural strength of their country. They are mostly a pastoral people, partly Soones and partly Shiabs. They derive their name from the Persian word *hazar*, a thousand, from being divided into innumerable tribes. Their subsistence depends chiefly on the produce of their flocks.

§ Cities and Towns.

CABUL, or **KABUL** or **CABOOL**, is situate in a plain at the bottom of a kind of funnel formed by a high and irregular hill of gneiss which rises 1000 feet above it, and bends round it from south-east to north-west. The city is surrounded by a lofty wall with towers and curtains and a broad ditch; and, with the exception of a suburb, stands all on the right bank of the river, which is rapid and clear, but only 30 or 40 yards wide, and is crossed by four bridges. The houses are built of sun-dried bricks and wood, but few of them are more than two storeys high. The great bazaar (*Charcuta* or *chouchut*), is an elegant arcade nearly 600 feet long and 30 broad, and divided into four equal parts. There are few such bazaars in the East, and wonder is excited by the silks, cloths, and goods arrayed along its sides, and at the quantity of dried fruits, grapes, pears, apples, quinces, melons, &c., piled up in endless profusion. Each trade has its separate bazaar. A white jelly strained from snow, called *jaledeh*, and blanchéd rhubarb, called *rhuwarh*, are great favourites with the people; and the town is famous for its cucubs or cooked meats. The population amounts to 60,000, Tajiks, Affghans, Persians, Cashmerians, Hindoos, Turks, Boloochees, Arabs, Jews, Armenians, Siaposh-kathis, and Kybarces; who all seem to converse in Persian as their mother tongue; but the Pushtoo or Affghan language is spoken in the neighbouring villages. At the foot of the eastern ridge is the *Bala-hissar*, a fortified palace, surrounded by an old brick wall; and on the eminence above it is the upper *Bala-hissar* or citadel, which overlooks the whole plain. The city stands about 6500 feet above the level of the sea; but the climate is genial. At noon in summer the sun is much hotter than in England, the thermometer generally standing at 90° or 91° ; the evenings, however, are cool, and during the night the cold is excessive. The snow lies for five months in winter, several feet deep; and the prevailing winds are from the north. Cabul is celebrated for its fruit; its gardens afford a great variety of both fruits and flowers; and the people make a species of wine not unlike Madeira. The people are passionately fond of sauntering in the gardens; and in the centre of one of these, about a mile from the city, is the tomb of the chivalrous and philosophic Sultan Baber, the founder of the Mogul empire in India. His grave is marked by two erect slabs of white marble; and in front of it is a small but chaste mosque of simple and pleasing architecture. Near it are interred the remains of his wives and children. The gardens of *Istahaf*, in the valley of Koh-daman (mountain skirt), 25 miles N. of Cabul, are famous throughout Affghanistan. At the head of the valley, on its eastern side, the face of the hill, at one particular spot, is covered with fine sand, called *Reiz-Rawan*, or the moving sand, which ascends about 250 yards up the hill, with an acclivity of 45° , and produces sounds when disturbed. The bazaar was destroyed by the British troops in 1842.

CANDAHAR or **KANDAHAR**, the western capital of Affghanistan, is situate in an extensive plain, bounded on the north and west by picturesque mountains, and watered by the river Urghand-ab. The city is of a square form, 5000 feet in circumference; is surrounded by a sun-dried mud wall 33 feet high, with towers and loop-holed battlements; and contains a citadel, consisting of an inner enclosure 200 yards square, in the northern face. Streets lined with houses of sun-dried brick, start from each of the four principal gates, and meet in the centre of the city under the vast dome of a circular bazaar, called the *Chuhar-sou*, or four ways; all of which are filled with shops, and crowded with people from morning till night. The streets, however, are excessively filthy, and mendicity is to be seen in its most loathsome and repulsive forms. The mosques are neither numerous nor splendid. The finest building in the city is the mausoleum of Ahmed Shah Abdallee, the founder of the Doo-raunee dynasty; an octagonal structure surmounted by a lofty dome. Candahar is the centre of a great trade between India and Persia; its population amounts to 60,000, of whom the greater part are Affghans. It is supposed to be one of the *Alexandrias* founded by Alexander the Great; but the present city is comparatively modern; the ruins of the older city are situate about three miles to the westward, at the foot of a range of mountains which bounds the plain in that direction. The climate is subject to great extremes; the thermometer, which sinks at night to 52° , ranges above 100° during the day, and in June and July the city is often visited by the fatal simoom from the western deserts.

GHUZNEE or **GHIZNE**, the capital of a powerful kingdom in the 12th century, is now completely in ruins; but there is a new town built at the foot of a long narrow ridge of gypsum, which rises a few hundred feet above the plain, and forms an irregular pentagon, with sides varying from 200 to 400 yards in length. The fortifications consist of a high rampart built on a scarped mound about 35 feet high, which, flanked by numerous towers, and surrounded by a fausse-braye and a deep wet-ditch. About half a mile N. of the Cabul gate is the tomb of the iconoclast conqueror of Hindostan, Sultan Mahmoud of Ghuznee, in the midst of a vast enclosure of gardens and orchards. It consists of a low and plain marble sarcophagus, in a low-roofed building; at the head of the tomb is still preserved the niche with which he demolished the idol Somnath; and the cedar-wood gates of the building are those which he carried off from Somnath's temple, in Gujrat, seven centuries ago. Not far from the tomb are two very elegant and graceful minarets of brick work, about 140 or 150 feet high, but considerably damaged. Somnath's gates have been restored to India by the British army; and Ghuznee demolished.

PESHAWER is a large town situate in a rich and extensive plain, watered by the river of Cabul, and extending westward from the Indus. The town is upwards of 5 miles in circuit, but the environs exhibit little else than a vast space covered with ruins and tombs. The gardens which stretch from the south to the west of the city present the appearance of a forest of orchards, where the plum, the fig-tree, the pear, the mulberry, the pomegranate, and the quince are cultivated. Peshawer has the appearance of a very ordinary Hindoo town, but contains about 105,000 inhabitants, consisting of Affghans, Cashmerians, and Hindoos. Peshawer, as well as the neighbouring territory between the Indus and the mountains, which form the western border of its valley, are at present in possession of the Seikhs, who have built a substantial fort on the site of the *Bala-hissar*, or royal palace of Peshawer. *Jellalabad*, 60 miles W. of Peshawer, is an insignificant place, in a healthy situation, containing 500 or 600 houses, and surrounded by a square wall. The *Kyber Pass*, between Peshawer and Jellalabad, extends about 30 miles in length, partly lined with precipices, and is completely commanded by the wild Affghan tribe of Kyberees, who either rob travellers, or make them pay for a safe passage. At *Kohat*, 24 miles S. of Peshawer, a paltry-looking town with 2000 inhabitants, the Seikhs have erected a fort on the top of a scarped rock. Near it are naphtha springs which yield five gallons a-day, and sulphur mines. Descending the Indus from Peshawer are several important places on the right or Affghan side, as: *Kalabagh*, a town romantically situate in a gorge of the great salt range, the hottest place between Attock and the sea. It has an alum work, which employs about 300 people, and produces daily about 122 maunds. *Dera-Imael-khan* is a new town well laid out, with straight and wide streets, in a country abounding with both the necessaries and the luxuries of life; 32° N. lat. The old town was swept away by the river in 1829. *Dera-Ghazi-khan* stands on the alluvial plain of the Indus, four miles from the river, 30° N. lat., and is surrounded by date groves, from the produce of which the Seikh government draws a considerable revenue. The town is admirably situate for trade. *Mittun* or *Mittunkoté*, on the right bank of the Indus, near the junction of the Punjunid, is a town of 1500 houses. *Kuetta* or *Kuetta*, a town of mud houses, surrounded by a mud wall, at the head of a fine valley, in the country of the Caukers; 170 miles S. by E. of Candahar. To the south-east of Kuetta, extends the *Pass of Bolan*, leading through the Kurklekkee hills, into Cutch-Gundava, with a steep descent, and of the most formidable description. Like the sea-beach, it is formed of loose pebbly stones and sand, and

runs in sharp angles from 150 to 200 yards in length, and gradually decreasing in width till it narrows to 20 or 30 feet, with perpendicular rocks rising like walls on each side.

Bamean (*Baumeen*), 60 miles W. N. W. of Cabul, is a singular place, situate in a valley to the north of the Hindoo-koh, on an affluent of the Oxus, and is celebrated for its colossal idols and innumerable excavations, which are found in all parts of the valley for about eight miles, and still form the houses of the greater part of its inhabitants. Altogether, they form an immense city, but none of them have any pretensions to architectural ornament. Bamean appears to be a place of very high antiquity. The gigantic idols, for which it is so famous, consist of two human figures, the one named *Silsal*, the other *Shahmana*, both of which are cut out in high relief on the face of a hill; the larger of the two is 120 feet high, and stands in a niche of 70 feet radius; the other is about half the size. Both are much mutilated, and their origin is quite unknown. The dominions of Cabul extend to the *Pass of Akrobat*, 15 miles N. of Bamean, leading through a wide belt of mountains, which are much lower than those to the south, and are free from snow when the others are covered. In the valley of Bamean are the remains of *Ghulghuleh*, a town destroyed by Zengis Khan, A.D. 1220. *Furrah*, 260 miles W. of Candahar, and 140 S. of Herat, is a town of 1000 houses, near the river to which it gives its name (*Furrah-rud*), built under a single hill in the middle of the valley. — (*Conolly*.)

The principal river of Afghanistan is the Indus, which forms its eastern border. The others are. — the *Abou-Seen*, which joins the Indus at Cabulgram; a river without a distinctive name, which joins the Indus at Attock, and conveys the collected waters of the valley of Cabul. Its principal affluents are, the *Kama*, *Kameh*, or *Kuner*, which drains the hill country of Chitral, between the Hindoo-koh and the Himalayas; the *Lundye*, *Punjcora*, and *Goorband*. The *Helmand*, *Heermund*, or *Ety-mander*, which rises at Faidaz, in the mountains of Pagman, near the Oona pass, and flows south-west and west into the Lake of Zurrah, after a course of 400 miles. Its immediate banks, and the country within half a mile or a mile of them, are everywhere fertile, and in most places well cultivated. Its principal affluents are, the *Urghundab*, *Khashrud*, *Turnuk*, *Urghessin*, *Shorundam*, and *Doree*. The *Furrah-rud*, or river of Furrah, runs into the Lake of Zurrah, after a course of 200 miles. The *Lorah*, in Pishcen and Shorabuk, is lost in the desert, after a course of 200 miles. The *Gomul* drains the high valleys above the Suleiman range, through which it forces a passage; but its water is completely absorbed by irrigation, in the *Daman*, before it reaches the Indus. The only lake in the country is the *Ab-i-Standeh* (i.e. the Still-water), about 60 miles S.E. from Ghiznee; about three or four miles in diameter in dry weather, and about twice as much after floods. Its water is salt; and it abounds in ducks and every sort of wild fowl.

BELOOCHISTAN,

The remaining division of Persia, lies between Afghanistan on the north, and the Indian Ocean on the south, extending along the latter almost 600 miles, from Cape Jask to Ras Mouzé, and comprising altogether an area of about 150,000 square English miles. The greater part of the country is mountainous, and especially its east and west divisions, which consist of two elevated table-lands. A large portion of it is entirely desert, being a continuation of the deserts of Kerman; and the sea-coast is covered by flat barren sands, which are destitute of water, and produce no other vegetation than date trees. The geology is almost totally unknown; gold, silver, iron, lead, copper, tin, sulphur, alum, nitre, rock-salt, sulphur, and naphtha, are found in different places. The climate is healthy, except in the maritime region of Mekran, where there are four seasons, two wet, one cold, and one hot; in the hill countries to the north there are also four seasons, corresponding with those of Europe. The principal vegetable productions are, the zizyphus jujuba, the timber of which resembles teak, palms, the tamarind, neem, peepul, mario, walnut, and sycamore; and fruits of almost all the kinds known in Europe. Mekran is famous for its dates, Kelat, for almonds; and melons are produced of so large a size that a man is scarcely able to lift one. Lions and tigers are rare, but both are found on the eastern border; hyenas, wolves, and jackals, are found over the whole country; there are also wild dog, which hunt in packs; leopards, wild cats, foxes, wild asses, antelopes, elks, red and moose deer, hares, mungoes, and mountain goats. Eagles, kites, and magpies, are found near Kelat; also water-fowl of various kinds, as herons, flamingos, bustards, partridges, lapwings, snipes, &c. Fish abound on the coast, where they form the principal food of both man and beast. Tortoises are common; but vermin and venomous reptiles are not so abundant as in India. The number of cattle is considerable; the sheep are of the fat-tailed kind; the cattle are chiefly of the black breed or buffaloes. The horses of Kelat and Cutch are large, strong, and bony, but vicious; but those of Mekran and Lus are small and spirit-d. Greyhounds and shepherd's dogs, of a ferocious kind, are both much valued; fowls and pigeons are the only domesticated birds. Except in Cutch-Gundava, which is fertile, well cultivated, and said to be capable of producing a sufficient supply of grain for the whole of Beloochistan, not a hundredth part of the country is cultivated. All the kinds of grain, however, which are known in India, are grown; also cotton, madder, and indigo, pulse and vegetables.

The people are almost equally divided into two distinct nations, the *Beloochees*, who are found in the west, and the *Brahoes*, who occupy the east. The former are desirous of being considered descendants of the Arabs, but do not resemble them in physical conformation, and are believed by Col. Pottinger to have been originally Seljuks. They are almost entirely a rude, nomadic, and pastoral people, living in tents, and moving from place to place with their herds and flocks. Their language is a corrupt dialect of the Persian. They are divided into three great tribes, the *Nahroochees*, the *Kinds*, and the *Murghchees* or *Murrees*, with numberless subdivisions. The Brahoes inhabit chiefly the district of Kelat, the Hala or Brahoofek mountains, and their borders; the Kinds and Murghchees occupy the country of Cutch-Gundava; the latter are also scattered over Sinde. The Brahoes are inferior in personal appearance to the Beloochees; their habits are still more unsettled, but they are not so predatory, avaricious, revengeful, and cruel. The government of Kelat, when the British army marched into Afghanistan, comprised the provinces of Jhorawan, Sarawan, Mukran or Mekran, Lus, Cutch-Gundava, Hurrund-Dazel, Mustoong, and Shal. Shal, Mustoong, and Cutch-Gundava, have now been made over by the British Government to the King of Cabul. A people called *Gewahrs*, probably of Gheber descent, are found in different places, who speak pure Persian; Hindoos are tolerated, and monopolise most of the trade of the eastern provinces. The government was nominally under the Khan of Kelat, but was really in the hands of the chiefs of the tribes. During the advance of the British army the Beloochees offered every opposition, by a continual series of predatory attacks; Kelat their capital has been in consequence taken possession of by the British troops; but, while we write, the Beloochees are said to be still in arms, and will probably not be soon subdued, as they can always have recourse to their deserts, or mountain fastnesses, where the regular warfare, for which disciplined troops are most available, cannot easily be carried on.

Cutch-Gundava, the best cultivated, and the most fertile part of the country, is properly within the limits of India, lying below the mountains which form the western border of the basin of the Indus, on the north-west frontier of Sinde. It consists chiefly of a plain, bounded by sandy deserts on the

north, south, and east, but watered by a number of streams which communicate with each other by canals. The face of the country is thus covered by water courses and streams, about four feet wide and as many deep, all having their sources in the Hala mountains. Two of these are entitled to the name of rivers, namely, the *Nauree* and the *Kauhee*, which both flow from the mountains, but are lost, or entirely absorbed, before they reach the Indus. The soil is rich and exceedingly productive; the climate is oppressively hot in summer, when the country is occasionally visited by the pestilential hot winds from the desert; and then becomes a white arid plain, presenting a cracked surface like the dry bed of a marsh. In March 1839, the thermometer, in the tents of the British officers, stood at 111°. In the rainy season the low level parts of the province are converted into a swamp of salt marshes. In winter the climate is mild, and the inhabitants of the western mountains and table-lands then resort to Cutch. The majority of the people are Jûts, but there are also a few Hindoos, who are engaged in trade. Villages are extremely numerous. The chief towns are *Gundava*, the capital, once a rich though mud-built city; but it was sacked and completely destroyed in October 1840, by the marauding Beloochees. *Dauder* and *Baugh* are also large towns of mud houses, on the road from Shikarpore in Sindh to the Bolan pass. *Dauder* contained about 2000 inhabitants, but has suffered the same fate as *Gundava*.

INDIA.

ASTRONOMICAL POSITION.—Between 7° and 35° N. latitude; and 67° and 97° East longitude.

DIMENSIONS.—The greatest length from north to south, or from the Himalayas in Cashmere to Cape Comorin, is about 1870 miles; and the greatest breadth, from the Halam mountains in Sindé to the eastern extremity of Assam, nearly along the 27° N. lat. is about 1800 miles. The superficial area comprises about 1,250,000 square English miles, with a sea-coast line of 3622 miles.

BOUNDARIES.—The natural boundaries of India are remarkably well defined. The whole of the northern frontier is formed by the gigantic range of the Himalayas; and the southern, or more properly the south-eastern and the south-western boundaries are fixed by the Indian Ocean, into which the country extends with a wedge-like point. The eastern boundary is less regular. Commencing at the head of the valley of Assam, it may be drawn along the mountains which form the southern watershed of that valley, and then, turning to the south, divide Arracan from Birmah, and terminate at Cape Negrais. The western, or north-western boundary is formed in like manner by the transverse range of mountains which commences at Ras Monzé, or Muaree, and extends northward to the Suffeid-koh, which again is separated only by the narrow bed of the Cabul river from the offsets of the Himalayas and Hindookoh. The Indus, however, has been usually considered the north-western boundary of Hindûstan; the sacred limit beyond which the Hindoos are forbidden to pass; and, in fact, the right bank of the river, and some portions even of the left, as in Sindé and above Attock, are inhabited by Beloochees and Affghans. The mountains beyond it may nevertheless be assumed as the natural geographical boundary of the region of India; for the narrow intervening strip of country has all the characteristic qualities of the Indian soil and climate; while the country on the other side of the mountains becomes at once a portion of the table-land of Iran or Eastern Persia. Nor could the free navigation of the Indus be preserved, were not both banks under the entire control of the same ruling power.

NAME.—The origin of the name of India is uncertain; it was formed by the ancient Greeks from the name of the river Indus or Sindé, which in their days was the eastern boundary of the Persian empire. Among the Brahminical Hindoos it bore anciently the general name of *Djambu-dwipa*, Island of the Djambu; and *Bharata-khanda*, the land of Bharata. The Hindoos divided it into, 1. *Ouditshya-desa*, North country; 2. *Madhya-desa*, Middle country; and 3. *Dackshina-desa*, South country. The first and the second divisions, corresponding with the modern Hindûstan, they considered as their true fatherland; beyond them every place was regarded as impure, an imputation which extended even to India itself to the south of the Vindhya mountains. In the ancient books of Zoroaster, India is called *Ferakh-khand*; and *Hindûstan*, the modern name of Northern India, or the region between the Himalayas and the Nerbuddah, is likewise Persian, being derived from the words *Hindoo*, black, and *St'han*, country, i. e. the country of the blacks; but it has for ages been adopted by the natives of all religions. Colonel Tod, however, says, that *Indu* is a name of Buddha, and that the appellation of the *Indû* or *Hindû* race is derived from the word *Induvansa*, one of the names of the descendants of Buddha, or the moon-race of India. — (*As. Jour.* December 1840, p. 234.) That portion of India, to the south of the Vindhya mountains, or the river Nerbuddah, has been generally called the *Deccan* or South Country; but the extension of this name, as well as of Hindûstan, is now considerably restricted.

GENERAL ASPECT.—The Himalayas extend along the whole of the northern and north-eastern frontier of India, with a continuous series of snowy peaks. From the crest of the passes through this chain, for 30, 40, or 50 miles southwards, the whole space is covered by immense snowcapped peaks, which are separated only by narrow intervening valleys. Another space of 30 or 40 miles is occupied by a very elevated region, consisting of mountains so lofty, as to have their summits covered with snow in winter, but embracing between their ridges high and narrow valleys, which are watered by mountain streams, and are generally inhabited and cultivated. The vegetable productions of this region are of the most remarkable stateliness, variety, and

beauty. Except at the summits of the mountains the trees are very large; and everywhere, and at all seasons, the ground is covered with the most beautiful flowers, which partly resemble those of India, but approach still more nearly to those of Europe. Along the south side again of this second region, is a lower belt of about 20 or 30 miles in breadth, covered with small hills which rise gradually towards the north, and are intersected by valleys, watered by numerous streams which have their sources among the loftier mountains, with which these hills gradually unite. The lower parts of this belt, with a portion of the adjacent plains, are the grand seat of the Salforests. In some places, particularly between the Jumnah and the Ganges, where the Sevalik hills form a belt, which rises from 1000 to 4500 feet, these low hills are separated from the mountains by fine valleys of considerable width, like the English *dales* or the Scottish *straths*; while, among the hills themselves, are many narrower valleys, resembling the *glens* of Scotland. Between this last or lowest ridge of hills, and the plains of Hindûstan, is a strip of country called *Tarai*, *Tarae*, *Tariyani*, or *Ketonee*, varying at different places from 3 to 20, or even 50 miles in breadth, and containing a few scattered small hills, and much poor high land overgrown with trees and shrubs, which are the haunt of elephants, tigers, black bears, hares, foxes, jackals, wild hogs, antelopes, and monkeys. It contains also much rich soil; but the whole district is so marshy and pestilential, that even the natives of the neighbouring country tremble to approach it; and, from April to October, the monkeys themselves, as well as the tigers and other wild denizens, and even the birds, are said to abandon this "belt of death." In Rohilcund the terai is separated from the plains by a low range of hills, crossed by numerous passes, some of which are practicable for wheel-carriages. The remainder is wholly open to the plains.

To the south of these mountainous and hilly regions, extend the great plains of Hindûstan, which are watered by the Indus, the Ganges, the Brahmapûtra, and their numerous affluents, and fall with a very gradual slope to the shores of the ocean, on the eastern and western sides of the peninsular part of India. Between the basin of the Sinde or Indus, which has been called *Sindetic India*, and the basin of the Ganges, or *Gangetic India*, is a ridge, or a series of ridges of hills, called *Aravulli*, which extend south-west and north-east more than 300 miles, with a breadth varying from about 6 to 60 miles, and a general elevation of 3600 feet. The Aravulli rise abruptly from the western desert, but fall gradually towards the east. Their general geological character is of primitive formation, and the summits of the diverging ranges west of Ajmere are quite dazzling, not with snow like the Himalayas, but with enormous masses of vitreous rose-coloured quartz. To the north of Komulmair, 25° N. lat., two of their divergent ridges form a continuous table-land, from 6 to 20 miles in width, as far as Ajmere, where it breaks up from the tabular form, and sends off numerous branches of low rocky hills through Jeypoor and Alwar, which reach the Jumnah in the vicinity of Delhi. From the south-western extremity of the Aravulli, several subordinate ranges of hills diverge to the north-east, and form a table-land, or series of high valleys at their angles, which slope towards the Jumnah. Further south, the *Vindhya Mountains* extend east and west, for about 350 miles, being separated from the Aravulli range by the valley of the river Mhye, and terminate eastward in a hilly region, which covers a large portion of Central India, and sends out branches as far as the Ganges at Chunar, Mirzapore, and Rajmahal, and even to the ocean at Balasore. The Vindhya mountains are scarcely so high as the Aravulli; but they rise very abruptly to their full elevation from the valley of the Nerbuddah, and form on their northern side the table-land of Malwah, which is about 2000 feet above the level of the sea, and slopes gently northwards; in which direction the Chumbul and other rivers carry the most of its waters to the Ganges, while a portion of them is conveyed by the Mhye to the Gulf of Cambay. Along the south side of the Vindhya mountains the long narrow valley of the river Nerbuddah extends in the same direction, beyond which is another nearly parallel ridge called the *Sautpoora Mountains*. To the south of these is the valley of the river Taptee, beyond which rises the *Chandore* and *Gawilghur ranges*, forming the northern mountain border of the table-land of the Deccan.

The southern part of India forms a large triangular promontory or peninsula, projecting into the Indian Ocean, about 900 miles farther than the coasts of the Gangetic and Sindetic plains. Along the western coast of this peninsula, a range of lofty mountains, called the *Ghauts*, extends from near the mouth of the Taptee river to the valley of Coimbatore, where they terminate with the *Nilgherries*, or *Blue Mountains*, which are the highest in the peninsula. The Ghauts rise very abruptly at the distance of about 30 or 40 miles from the coast, forming on their eastern side a table-

land, about 2000 feet above the level of the sea, rather undulating than flat; and covered with numerous smaller ranges of hills, sloping eastward in terraces to the Bay of Bengal, into which its waters descend. The northern part of the chain is less elevated than the southern, and seldom exceeds 3000 feet; between 17° and 18° N. the Mahabaleshwar hills form a table-land of about 4500 feet high; between 10° and 15° N. there are peaks of granite 5000 or 6000 feet high; in Coorg, *Podicandamale* rises to the height of 5682, and in no part of the country is there a summit lower than 5000 feet; farther south the Nilgherries reach the elevation of 8960. On the eastern side of the peninsula a similar chain, named the *Eastern Ghauts*, extends along the borders of the Lower Carnatic and the Northern Circars, but at a greater distance from the sea than the Western Ghauts; it is not so lofty, is less continuous, and is crossed by all the rivers which flow from the interior table-land. At their southern extremity the Eastern are connected with the Western Ghauts, and in the angle formed by the two chains, the table-land of Mysore, and that of the Balaghaut or Upper Carnatic, rise to the great elevation of 3000 feet above the level of the sea; the table-land of the Nilgherries reaches 7000 feet, and from these the country declines rapidly towards Coimbatore. Northwards, the Eastern Ghauts terminate in an unexplored country, where their diverging ranges seem to cover a wide extent of surface. The highest part of the chain is about the latitude of Madras, where it rises to 3000 feet. To the south of the Nilgherries, which form, as it were, the terminating nucleus of both ranges, the valley of the river Paniany forms a gap of 16 miles wide; and beyond it, to the south, rises a group of mountains clothed with stupendous forests, and intersected by lovely valleys, which extends southwards nearly 200 miles, and may be considered as a continuation of the Ghauts. Within 30 miles of Cape Comorin this groupe terminates abruptly in a bluff granite peak, about 2000 feet high, from the base of which a low range of similar rocks extends southwards to the sea. Between the Western Ghauts and the sea, there is but a narrow strip of land, and the precipitous sides of the mountains which rise above it, are generally covered with forests of the tallest trees, and with impenetrable jungle. The lowland along the east coast is very considerably different, being a broad though unequal belt of country, many parts of which consist of alluvial plains formed by the deposits of the numerous rivers which flow from the table-land of the interior. In the sea these deposits are so distributed as to form a shelving bank, upwards of 100 miles in breadth along the coasts of the peninsula, which slopes so regularly that the number of fathoms of water is a sure indication of the distance from land.

But the most remarkable region is the Great Desert, which may be said to extend from the eastern base of the Hala mountains to the western base of the Aravulli, a distance of 350 miles; and from the Ruin of Cutch northward to the Suttlej, upwards of 450 miles; comprising an area of 150,000 square miles, or about an eighth part of the surface of India. This desert is traversed in its western portion by the Indus, and in its eastern, by the Loonee; but, except along the banks of these rivers, and within the reach of artificial irrigation, it admits of cultivation only in a few places, and immediately after the rains. Between the Indus and the Loonee and the Aravulli mountains, the desert forms a continuous succession of sandhills, for a space of 450 miles in length, with a breadth varying from 50 to upwards of 100, intersected by valleys where scanty crops of grain are raised after the monsoon. The sand is a dust of the finest quality; the hills are covered with stunted shrubs and different kinds of vegetation till within a few months of the rainy season, when, in consequence of the herbage being burnt up, the sand is blown violently about by the wind, and the region is rendered almost uninhabitable. The surface has no covering of turf, nor any closely contiguous roots; but there are various kinds of plants, whose berries, leaves, or fruit are fit for food. Travelling through such a tract is difficult and disagreeable; camels and horses are the only animals which can cross it; hill and valley alternate, as if the surface had been troubled like the sea in a tempest, and left stationary in the midst of its fury. Wells, however, are scattered through the desert, and are generally found in the valleys, often in the bed of a tank, or in the hollows where the rain-water collects. They consist of small round holes, about a foot and a half in diameter, which are dug sometimes to the depth of forty or fifty fathoms, and lined with branches of trees. The rains which fall are slight and irregular, and are speedily absorbed by the thirsty sand. That portion of the desert which is destitute of wells is called *rohree*; and it would not be difficult to convert the whole region into a useless waste, by filling up the few which exist. This is not unfrequently done by some Rajpoot chief or other desperado, who, flying to the desert, fills up the wells to strengthen his position, and betakes himself to rapine and bloodshed. So far as it

has been hitherto examined, the desert lies upon a sandstone formation. Many large portions of it present the features of real solitude and desolation; but there are also numerous oases, where herdsmen pasture their flocks. In the direct line from Bhooj to Kairpūr water is abundant; and the country is traversed by low sandstone hills, which are thickly wooded. The desert is called by the natives *Thull*, *Thur*, or *Dhat*; but in the Hindoo geography it is called *Maroosthulli*, or the Region of Death. The people found in it are Bheels, and wandering tribes of Soda and other Rajpoots, Khosas, and Siudees; the first two tribes are the only permanent settlers, the others being attracted to it only after the rains, for the sake of the abundant pasture which it then produces. Of the whole surface of India it is reckoned that one third is covered by jungle or waste.

GULFS, BAYS, AND STRAITS.—The *Gulf of Cutch*, between Cutch and Gujrat. The *Gulf of Cambay*, between Gujrat and the peninsula of Kattiwar. With the exception of the Bhagwa sands on the east side, between the Nerbuddah and the Tuptee rivers, the lower part of the gulf is clear of shoals, with irregular soundings of from 8 to 30 fathoms; but the upper part is filled with extensive shoals and sandbanks, intersected by deep channels, which are frequently shifting, particularly during the rains. The tides are extremely rapid, and their rise and fall very great. The whole coast is low, is overflowed for some distance inland at high spring-tides, and is intersected by numerous small creeks and inlets. The bore of the tide sets into the gulf like an upright wall of water, with a head of 4, 5, or 6 feet, each succeeding wave always decreasing, till the whole gulf is reduced to the level of the sea without. *Bombay* is an indentation of the coast of Concan, formed by the islands of Bombay and Salsette on the west, and contains several wooded islands. The *Gulf of Manaar*, which separates the southern Carnatic from Ceylon, is too shallow for large vessels, but has a sufficient depth for sloops and the craft of the country, which, by passing this way, avoid making the circuit of Ceylon. The gulf is closed to the north by a ridge of sandbanks, stretching 30 miles across, between the islands of Manaar and Ramiseram, the formation of which is very remarkable, being only about a quarter of a mile in breadth, and consisting entirely of sand, partly above and partly below water, which has been collected apparently by the surf and the currents, and is, so far as can be ascertained, unsupported by rock. On each side, at the distance of two and a half or three miles, the sea is six fathoms deep, and quite free of obstruction. There are three principal channels across it, which are passable by dhonies and fishing boats in fine weather; but the passage being difficult and dangerous, is not commonly used. The whole distance between Ceylon and the continent is 62 miles; but the only channels safely passable even by small vessels are one of one mile in breadth, between Manaar and Ceylon, and another of only about fifty yards wide, on the west side of Ramiseram. The latter is called *Paumbaun passage*; and for several years attempts have been made by the Madras government to deepen it, so as to make it passable for the larger vessels of the country. They have so far succeeded as to form a channel for vessels of 200 tons; and it is expected that a depth of 12 or 14 feet will be ultimately reached. The ridge itself is called by Europeans *Adam's bridge* and is said by the Hindoos to have served as a bridge for their demigod Rama, when he invaded Ceylon. The channel to the northward is called *Palk's Straits*, from a Dutch commander who is said to have once passed through the bridge with a fleet. *False Bay* and *Balasore Roads*, between Point Palmyras and the Hoogly river. The whole of the east coast of India is destitute of harbours, and large ships are obliged to cast anchor at the distance of several miles from the shore, which slopes very gradually seaward.

CAPIES.—*Juggut Point*, the western point, and *Diu Head*, the southern point, of the peninsula of Kattiwar, in Gujrat. *Boria*, a remarkably high bluff headland, on the coast of Concan, lat. $17^{\circ} 20' N.$ *Ramas* or *Ramus*, a bluff headland, in lat. $15^{\circ} 10' N.$, which projects 50 far from the line of coast as to form a bay on each side. *Maundilly* or *Mount Dilly*, lat. $12^{\circ} 1' N.$, a hill separated from the coast of Malabar by salt-water creeks, and forming a bold and remarkable promontory. The bay on the south side runs three miles inland, with six fathoms water, and a fine bottom. A project is under the consideration of government to convert it into a harbour, by means of a breakwater. *Comorin*, the most southern point of India: the land at its extremity is low and flat, covered with trees, and not visible from a ship's deck for more than four or five leagues; but about half a mile inland is the mountain of Komari, 4000 feet high, quite smooth, and verdant to the very top. *Point Calimere*, the south-eastern point of the delta of the Cauvery. The *Dolphin's Nose*, at Vizagapatam, on the coast of the northern Circars, a lofty and steep promontory, rising abruptly to the height of 1000 feet above the level of the sea, which washes its base. *Point Palmyras*, the most easterly projection of the province of Cuttack. The *Sandheads*, the extremities of the sand-banks which lie between Point Palmyras and the mouth of the Hoogly river.

RIVERS.—The *Indus* is formed in Balti, or Little Thibet, by the union of two streams, the *Shayuk* and the *Sinh-kha-bab*, or river which rises from the lion's mouth. The latter is so called in reference to the Thibetan tradition, borrowed perhaps from the Hindoos, of the origin of four great rivers from the mouths of as many animals; as, the Indus from the lion's mouth; the Ganges from that of the peacock; the Sutlej from the elephant's; and the Sanpoo from that of the horse. The *Sinh-kha-bab* rises in the Kan-re, Kangri, or Kantesi mountains, the Kailasa or Cailas of the Hindoos, which skirt on the north the sacred lakes Manasarowara and Rawan-rhad, in the Chinese province of Chanthan. Flowing in a north-westerly direction, it receives at Tashigong a river from the valley of Gar-topé, and pursues its course through Ladakh and Balti, receiving in its progress a number of large streams from both sides, the principal of which are the *Zanskar* or *Lingtee*, to the westward of Leh, and the united stream of the rivers of *Pushk-yum*, *Kartse*, *Dras*, and *Shingo*, which drain the valleys to the north-east of Cashmere. The *Shayuk* has its sources in the mountains of Karakorum, between 77° and $78^{\circ} E.$ long., and about $35^{\circ} 40' N.$ lat.; it flows first for several days' journey to the south, and then turning almost at a right angle to the north-west, continues in that direction till, at Kiris, 20 miles E. of Iskardo, it meets the *Sinh-kha-bab*. From Kiris the united stream flows westward for about 100 miles, receiving in its progress the rivers of *Shigar*, *Nagar*, *Hunz*, *Gilgit*, *Yasin*, *Hassora*, and other streams, and then turns to the south, breaking through the Himalayas in $74^{\circ} E.$ long. From this it flows south-west among high mountains, where it receives the *Abu-seen*, and thence onward to Torbela, 40 miles above Attok, E.N.E., where it enters the valley of Chunch, spreading out and forming innumerable islands as far down as its confluence with the Lundy or River of Cabul, where it again enters a hilly country, and becomes so confined, that at Attok it is only 286 yards across, but very deep and rapid, with a current exceeding six miles an hour. Even when the river is lowest, the stream at the meeting of the Indus and the Lundy, and during its course through the rocks, is full of waves and eddies, and produces a sound like that of the sea; but, when it is swelled by the melting of the snow in summer, it forms a tremendous whirlpool, the roaring of which can be heard at a great distance, and which often swallows up boats, or dashes them against the rocks. The Indus itself is unnavigable above the conflu-

ence, but the *Lundye* is navigable till within 50 miles of Cabul, from which point boats may drop down to the sea, a distance of 1200 miles, but not without danger; for, besides the obstructions already mentioned, the Indus, only 200 yards above the fort of Attock, gushes over a rapid with amazing fury, but afterwards passes on in a tranquil stream. At Nilab, 10 miles below Attock, the river enters again among hills, and continues to wind through them to Karabagh or Calabagh, $33^{\circ} 7' 30''$ N. lat. The banks of the river throughout this distance are formed of hills which rise immediately from its waters in bold bluffs, or weather-worn slopes, at some places presenting mural precipices, at others rugged and broken, and casting dark shadows across the narrow river. Compressed by narrow banks, which are several hundred feet high, the sullen stream, when not obstructed, glides smoothly onward with a current of nine miles an hour, where its depth and velocity are greatest. From May till September the upward voyage through this gorge may be pronounced impracticable; but the downward voyage may be performed at all seasons, though not without risk, when the river is full. Below Karabagh it enters the rich valley of the Esau-khails in four great branches, and, except at Bukkur, where it crosses a low limestone range, is not again interrupted by hills till it reach the ocean, to which it flows first south and then south south-west, dividing into numerous streams, fertilizing a wide extent of country, and ultimately forming a delta, which presents a face of 125 miles to the sea. The inconstancy of the river in flowing through the delta is proverbial; its channels and branches are continually changing, new courses being formed, and old ones filled up, almost every season. The tide flows and ebbs with great violence, particularly near the sea, and ascends the river about 75 miles, overflowing the lower banks to a great extent. The course of the Indus is occasionally swept by terrific blasts, which, while they last, prostrate everything before them; but fortunately they give timely warning of their approach, and long before the storm bursts the careful tracker has moored his boat in some secure haven.

The principal affluent of the Indus on the right is the *Lundye* already mentioned, which is also named the *Cabul River*. Indeed, the river which joins the Indus from the westward above Attock has no distinctive name; it is formed by the streams which flow from the Himalayas, the Hindoo-koh, and the Suffeid-koh, into the valley which lies between them, the *Lundye* and the River of Cabul being perhaps the principal channels. But there is an affluent larger than any of the others, named the *Kama* or *Kameh* or *Kumar*, which forms the great drain of the elevated hill countries of Chitral and Kaffistan, situate between the Himalayas and the north-east prolongation of the Hindoo-koh, and has its remote sources near those of the Oxus. On the left the Indus receives also one great river, the *Chenab* or *Punjab*, near Mithun-kote, $28^{\circ} 54'$ N. lat. This affluent is composed of five celebrated streams, the *Vedul*, or river of *Jelum*, *Jhylum* or *Jylum* (ancient *Hydaspes*), which drains the valleys of Cashmere and Garets; the *Chenab* (*Aceines*); the *Ravee* (*Hydrates*); the *Ghara* or *Beas* (*Hyphasis*); and the *Suttley*, *Suttledge*, or *Sutudra* (*Hesudrus* or *Zaradrus*). The first four have their sources on the south side of the Himalayas; but the *Suttley* flows from the lake Rhawan-rhad, on the north side of the same chain, and its most remote source is said to be at a place named Chomik-Tongdol, where a small stream issues from the ground, and runs into Georgoo lake, about 19,000 feet above the level of the sea, and 2000 feet higher than lake Manasarowara in Undes. It flows first in a north-westerly direction, till, on the borders of Kunawar, it is joined by the *Losar* or *River of Piti*, which drains the southern districts of Ladakh, when it turns to the south, and enters India through a very deep valley between 77° and 79° E. long. At several places above Loodiana the *Suttley* is fordable, but in general is so rapid as to be scarcely passable; below Loodiana there are no fords, and the river is said to be very deep. These are all very large navigable rivers, but being studded with shifting sandbanks, they are not equally navigable at all seasons, nor for all kinds of vessels; indeed the navigation of them can be considered practicable only by the boats of the country, which are flat-bottomed, and draw little water. Steam vessels could ply if built in the same manner, but no vessel with a keel could be safely navigated on them all. There is, says Lieutenant Wood, no known river discharging even half the quantity of water which is not superior for navigable purposes to this far-famed stream, the Indus. Till recently, the navigation, such as it is, was completely obstructed by political influences; these have been now removed by the extension of the British dominion to the Indus, and steam-boats ascend that stream, the *Chenab*, and the *Suttley*, to Ferozepore and Loodiana. A survey has been made of the level between the *Suttley* and the *Jumnah*, and the ground has been found favourable for a canal between Kurnaul and Loodiana, which would complete a circuit of nearly 3000 miles of inland navigation, from the Arabian Sea to the Bay of Bengal.

The *Ganges*, which is reckoned the principal river of India, is formed by the union of two branches, the *Bhagirathy*, which is regarded as the true *Ganges*, and the *Alakanda*; the former rises from a bed of snow above Gangotri, at the height of 13,800 feet above the level of the sea, 79° E. long.; the latter rises above Badrinath, $79^{\circ} 20'$ E. long., and after having received the waters of the *Doulee*, *Pindur*, and other streams, unites with the *Bhagirathy* at Deo-prayaga. The *Bhagirathy*, or true *Ganges*, is considered peculiarly sacred, and is even worshipped as a goddess under the name of *Gunga*; the water of the river is reckoned capable of washing away all sin; and multitudes of pilgrims come from all parts of India to bathe in the stream, or have its water poured over them. It is peculiarly sacred at the confluences of five of its tributaries, four of which unite with the principal channel among the hills above Hurdwar, and the fifth, which is the *Jumnah*, at Allahabad. The united stream, or *Ganges*, then flows on to Hurdwar, where it leaves the mountains, and enters the plains of Hindûstan, with a clear, beautiful, and rather shallow stream, having already fallen 12,000 feet below the level of Gangotri. The river then flows with a winding course in a general direction south-east by east, receiving in its progress all the streams which descend the southern slopes of the Himalayas through 15° of longitude, and those collected from Central India by the *Jumnah*, the *Saone*, and others. From Hurdwar to Allahabad the *Ganges* is generally from one mile to $1\frac{1}{2}$ wide; farther down it becomes more winding, and its bed expands till it reaches its extreme width of three miles. Above Allahabad it is fordable in some places, but the navigation is never interrupted. At the distance of 500 miles from the sea the channel is 30 feet deep when the river is at the lowest; and this depth continues to the sea, where the sudden expansion of the stream deprives it of the force necessary to sweep away the bars of sand and mud which are thrown across it by the strong southerly winds, so that the principal branch cannot be entered by large vessels. About 200 miles from the sea, or 300 by the course of the river, commences the Delta of the *Ganges*. The two most westerly branches, named the *Cosimbazar* and the *Jellinghy rivers*, unite and form the *Hoogly river*, which passes Calcutta, and is the only branch commonly navigated by sea-going vessels. It is moreover considered by the Hindoos to be the *Bhagirathy* or true *Ganges*, and therefore held sacred. For the greater part of its course, from Calcutta to the sand-heads, the banks of the *Hoogly* are the most desolate that can well be imagined; and the navigation is rather intricate, owing to the frequent changes of the sand. From Jellinghy the main stream flows south-east, and throws off numerous branches, which form a labyrinth of rivers and creeks, inclosing a multitude of low islands covered with jungle, and named the *Sunderbunds*, which give an extent of 200 miles to the base, or sea-coast of the delta. In the dry season the mean rate of motion of the stream is less than three miles an hour; but in the rainy season the current runs five or six miles, and in some places even seven or eight. The *Ganges* and its branches form the great highways of Bengal and the upper provinces, along which all bulky commodities are transported, and it is said that so many as 300,000 boatsmen are employed in this traffic.

The most important affluent of the *Ganges* is the *Yamuna* or *Jumnah*, which joins it at Allahabad,

after a course of 780 miles. It rises at Jumnotri, a little to the west of Gangoutri, 10,849 feet above the level of the sea, and flows southward, nearly parallel with the Ganges, at the distance of from 50 to 75 miles. It is fordable in several places above Agra, before the beginning of October, and may be considered passable at any place above its junction with the Chambul. Its affluents on the right are: the *Hansotee*, *Bunguna*, *Chumbul*, *Kohari* and *Ashin*, *Sinde*, *Belwa*, *Cane*, *Baugy*; the *Hindan* on the left. The *Chumbul* has a course of 440 miles, rising near Maundoo in Malwah, and falling into the Jumnah 20 miles below Etawah. Its principal affluents are the *Sippa*, *Chota-Sind*, *Kally-Sind*, *Neeru*, *Parbutee*, on the right; the *Bunas* (termed *Kouarri* or the virgin), on the left. Between the Jumnah and the Sutlej are several small streams, which are very important in a military point of view. The *Khugor* or *Gagur*, and some others fall into the *Sursooty*, the termination of which was long a problem; it is lost in the desert to the east of Bhutnere; but the Hindoos believe that it proceeds under ground to join the Jumnah and the Ganges at the great prayaga of Allahabad.

The other principal affluents of the Ganges on the right, are: the *Tonsa*, the *Sone* or *Soane*, the *Burracur*, and the *Dumnooda*; on the left, the *Ramgunga*, *Goomtee*, *Tonse*, *Sarjou* or *Gogra*, *Gunduck*, *Bogmutty*, *Coosy* or *Kosah*, *Mahanada* and *Purnabulah*, *Attri* or *Teesta*; all very large rivers.

THE BRAHMAPUTRA or BURRAMPOOTER, is supposed to have its origin in a lofty mountain range somewhere near the 29° N. lat., and 97° 20' E. long. It flows westward through Assam till it reach the borders of Bengal, where it turns south, and reaches the sea, after a course of 1000 miles. In the higher part of its course it is also named *Lohit*, and, near its mouth, *Megna*. Its affluents are the *Dihong*, *Dihong*, *Dikho*, *Deesung*, *Booree-dehing*, *Noa-dehing*, *Debooro*, all in Upper Assam; the *Bonass*, *Champonatty*, *Gaddada*, *Toreesha*, and *Manshi*, from Boutan; the *Teesta*, *Atri*, *Lobnee*, and others, between it and the Ganges. The only tributary of any importance is the *Dihong*, which joins the principal stream in 27° 45' N. lat., and 95° 25' E. long. It comes from the north, and its volume of water being about three times that of the Brahmaputra, it is supposed to derive them from the San-poo of Thibet; but the difficult state of its channel, which is full of rocks and rapids, and the impossibility of travelling on its banks have hitherto prevented a survey by European officers, for more than a few miles up the stream. The late mission to Bhotan (1838) were told by intelligent natives that the San-poo is the Brahmaputra of Assam, and that, just before turning to the south, it receives a river from the eastward from China. The Brahmaputra is the largest river of India. It has a course of 400 miles through Bengal, during the last 60 of which, before its confluence with the Ganges, its width is regularly about four or five miles; and but for the freshness of its waters, it might pass for an arm of the sea. Upwards it ceases to be navigable, except for canoes, at Soonapoor, about 20 miles E. of Sudiya, in Upper Assam.

THE LOONY, LOONI, or LOONEE, has its sources in the sacred lakes of Poshkur and Ajmere, with a more remote arm from Purbutsur, in Rajpootana, and has a course of more than 300 miles S.W. through Marwar into the Rann of Cutch. It is the only channel by which the rain which falls on the western slopes of the Aravulli finds its way to the sea; but it is rather a torrent than a river; its stream is constant only during the rainy season. It has, however, pools of water in its channel, and affords an ample supply from pits or wells dug in its sandy bed.

THE SABERMUTTY and the MIYE or MAHI both flow into the head of the Gulf of Cambay; the former from Rajpootana, the latter from Malwah; but they are both great water courses rather than rivers, their streams being almost dried up within three or four months after the rains.

THE NERBUDDAH, NARBADA, NERBADDAH, NERMADDA, or NIRMADA, rises near Omercutuc, in Gundwana, 2463 feet above the level of the sea, close to the source of the Soane. It flows at first along a table-land; has a great fall near Mundlah; and then turning nearly due west, between the parallel ranges of the Vindhya and Sautpoora mountains, falls into the Gulf of Cambay. It has a course of 750 miles, with fewer windings than most Indian rivers; but it is obstructed by rocks, shallows, and cataracts. At Husseinabad the bed of the river is 900 yards wide, but much broken, and has thirteen falls within 14 miles of that town; but at Mandatta, 130 miles further down, it is not more than 190 yards wide, being confined between barren rocks, and very deep. The valley, for 300 miles above Hindia, is only from 15 to 20 miles wide, the river keeping near the Malwah side; forests of deep jungle extend on both sides, and rise to the tops of the hills.

THE TUPTEE or TAPTY rises near Beitoul, among the Injardy hills, and flows west with a very winding course of about 500 miles into the Gulf of Cambay, below Surat. Its principal affluents are the *Pounra* and the *Guirna*.

THE CARAWOTTY rises in the table-land of the Deccan, to the east of Goa, and, after a winding course, falls into the sea on the west coast, between Carwar and Shedashevaghur. In leaving the upper country it forms a tremendous cataract several hundred feet high.

THE CAUVERY rises in the hill country of Coorg, near the coast of Malabar, 4000 feet above the level of the sea, passes through Mysore, Coimbatore, and the Carnatic, and after a winding course of 450 miles falls into the sea below Tanjore by six principal mouths, which form a spacious delta. Above Trichinopoly the Cauvery divides into two branches, which form the island of Seringham. About 13 miles east these branches again approach, but the northern one is 20 feet below the level of the other, and they are prevented from uniting by a great *bund* or dam, which sends the southern branch through Tanjore in numberless channels, while the northern branch flows onward to the sea under the name of *Coleroon*. Its principal affluents are the *Henavutty*, the *Shinsha*, and the *Aravutty* in Mysore; and the *Noyel* from Coimbatore. It is navigable only for small boats. Near the island of Sivana-Samudra, 35 miles E.S.E. of Seringapatam, the river forms two cataracts of extraordinary grandeur, named *Gungana-chuki* and *Birra-chuki*, the one 460 feet, and the other 350 feet high. The volume of water in the rainy season is very great, especially in the larger fall, where it rolls in one sheet over a precipitous ledge of rock, with a fearful and stunning sound. These falls have been made easily accessible by roads and bridges, constructed by a public-spirited individual named Ram-Samy Modeliar, to whom the Rajah of Mysore gave a grant of the island, and by whom the jungle has been cleared, and the land brought into cultivation. The source of the Cauvery is a place of devotion to the pious; and the spring is fabled to have been once a nymph of exquisite beauty. At its confluence with the Kuniky, in Coorg, are three temples dedicated to the Hindoo triad.

THE PENNAR rises in Mysore, which flows first N., then E. by S. into the Bay of Bengal, below Nellore; the *Palar*, in the Carnatic, which passes Vellore and Arcot, and falls into the sea to the south of Sadras; the *Punnair*, which rises in Mysore, and falls into the sea at Cuddalore; the *Vellaur* passes Attoor, and enters the sea at Porto Novo, at the mouth of the Coleroon.

THE KRISHNA or KISTNAH rises from the western Ghauts in the table-land of Mahabaleshwar, only 30 miles from the west coast, and 4500 feet above the level of the sea, and flows S.E. into the Bay of Bengal, after a course of 650 miles. Its principal affluents are: the *Tongabudra*, formed by the *Tonga* and the *Budra*, *Wurda*, *Hugra*, and *Vedarutty*; the *Warna*; the *Gunga*; the *Gutpurba*; the *Mulpurba*; the *Dhon*, a salt-water river from Bejapore; the *Beema* or *Bima*, which has a course of 400 miles before it joins the Kistnah, receiving in its progress the *Moota-moota*, *Neera*, *Maun*, *Vail*, *Goor*, *Kokaree*, *Seana*, and *Boree*; the *Dindee*; the *Pedda Wag*; and the *Mussy*, which passes Ilydrabad.

THE GODAVERY rises in the western Ghauts, near the fort of Trimbuck, about 70 miles N.E. of Bombay, and flows S.E. into the Bay of Bengal, after a course of 850 miles. It enters the sea by two principal branches, and several smaller streams, which form good tide harbours for ships of moderate

burden. Its principal affluents are: the *Para*; the *Sindhana*; the *Manhat*; the *Manjera*; the *Doodna*; the *Ghurk-Poorna*; the *Pranheta*, formed by the *Whurda* and its affluent the *Pain-Gunga*, and the *Wye-Gunga*, with its affluents, the *Khahan*, *Heeree*, *Atora*, and *Choolbund*; and the *Solair*.

The *MAHARUNDY* rises near Conkeir in Berar, and enters the Bay of Bengal near Cuttack by many mouths. The *BERVORAH*, formed by the *Brahminy* and the *Soank*, enters the Bay of Bengal under the name of *MYPURRA*, on the north side of Point Palmyras. The *DOMRAH*, formed by the *Ryturay*, *Cogle*, *Sabandy*, and others, also falls into the Bay of Bengal, a few miles farther north. The *Subene-ka* or *Subunreeka*, rises in the district of Chuta-nagpoor, in Bahar, and falls into the Bay of Bengal, between Balasore and Injellee. It has a great fall at Hūrūrū-ghaut, near Kishenpore and Dounda in Chuta-nagpoor.

LAKES AND MORASSES.—The *Runn of Cutch* is one of the most singular features of India. It is situated between the peninsulas of Kattiwar and Cutch on the south, and the *Thur* or Great Desert on the north; being about 190 miles in length, and 90 at its greatest breadth, and containing about 6500 square miles. In the dry season it forms a desert plain interspersed with diminutive shallow lakes, long ridges of barren sand, patches of verdant pasturage, a few fields susceptible of cultivation, and extensive sheets of salt crust spread over the insidious surface, which is full of dangerous quicksands; but, during the monsoons it is covered with water, which flows into it from the Gulf of Cutch and the Loony river, and forms a dirty saline solution, which reaches up to the camels' girths in many places along the tract where it is crossed, between Bhoj and Buliari; the travellers finding rest, and their camels pasture in a little island named *Khari-caba*. After the retiring of the waters again, myriads of dead prawns, mullets, and other fish are found strewn over the surface. The ground, when uncovered with water, is nowhere fenny or swampy, but is dry and sandy; and the limits of the *Runn* are as strongly marked as those between a gravel walk and the verdant lawn which it skirts. The traveller steps at once from a soil teeming with vegetation upon the bare and sterile ground. At some seasons the mirage is very prevalent in the *Runn*. On the banks, and in the small islands of the *Runn*, the wild ass, a handsome animal, but of untameable fierceness, exists in great numbers; apes, porcupines, and vast flocks of large birds share with him the possession of this dreary and desolate region. The lakes of India are few and of small dimensions. The *Chilka lake*, on the coast of Orissa, between Cuttack and the Northern Circars, is a shallow expanse, 35 miles long by 8 in breadth, separated from the sea only by a belt of sand. *Colair lake*, in the Northern Circars, is chiefly formed by the overflowing of the rivers Kistnah and Godavery, between which it lies. It is about 47 miles in length by 14 in breadth; from the beginning of July till the end of September it is covered with water, except about 60 or 70 small islands in which the inhabitants remain; during the rest of the year it is dry and passable, and in some parts highly cultivated. *Pulicat lake*, on the coast of Carnatic, north of Madras, is about 33 miles long, and 11 broad, contains several islands, and communicates with the sea by very narrow channels. *Samber* or *Sambur lake*, in Rajpootana, 20 miles long, and $1\frac{1}{2}$ broad. After its bed is filled with the rains, the water becomes strongly impregnated with salt, which, when the waters retire, is found crystallized in large masses under a layer of mud. It supplies with that article a considerable portion of Upper India. *Deedwannah* and *Sirr*, two other small salt lakes, also in Rajpootana. *Lunar lake*, 40 miles from Saulna, in the Neermal hills, is a vast crater 500 feet deep, and 4 or 5 miles round the edge; its water is green and bitter, supersaturated with alkaline carbonate, and containing silex in solution, with a portion of iron. The mud is black, and abounds with sulphuretted hydrogen; the water, nevertheless, is clear and without smell.

GEOLOGY AND MINERAL PRODUCTIONS.—The geological arrangement of the rocks is everywhere very simple, and a great uniformity prevails throughout the whole country from Cape Comorin to the Ganges; the same formation extending in many instances uninterruptedly for several hundred miles in one direction. Primitive formations, in which granite seems to bear the principal proportion, stretch, with few interruptions, from Cape Comorin to beyond Nagpoor and Ellichpoor, occupying a great part of the Carnatic, Malabar, and Mysore, nearly the whole of the Nizam's territory, and a large portion of Berar. They are also met with in many places still further north, in Malwah, Bundelcund, the Aravulli mountains, and the neighbourhood of Delhi, and occupy altogether about three-fourths of central and peninsular India. Primitive rocks form also the main body or nucleus of the Himalayas, and some of the highest peaks seem to be composed of granite. The flanks of the sub-Himalayas are covered with beds of concretionary sandstone, conglomerate, and loam. Between the Jumnah and the Ganges, these hills, there named the *Sevalik* or *Sewalick*, rise from 1000 to 4500 feet; and in their deposits are found immense quantities of the fossil teeth and bones of the elephant, mastodon, hippopotamus, rhinoceros, elk, ox, horse, deer, of several carnivorous animals, crocodiles, gavials, and freshwater turtles, with fluviatile shells, and remains of fishes. The remains of extinct species of the monkey and the camel have also been found. The great plains of Gangetic and Sindetic India are almost entirely composed of alluvial deposits, which are in many places, as in Bengal, several hundred feet thick. A great sandstone formation, commencing at the Rajmahal hills on the Ganges, stretches westward across the basin of the Saone, and through Bundelcund to the banks of the Nerbuddah, and appears again at Neemuch and Baug. In both of these districts, and in Malwah, it is frequently covered with a thin crust of grey argillaceous limestone, nearly destitute of organic remains, the general absence of which in the secondary rocks of India is remarkable. The *Thur* or Great Desert, to the west of the Aravulli mountains, also lies, as already mentioned, on a great bed of sandstone. Tertiary rocks are found at the base of the first rise of the primitive rocks of the Himalayas, in the north-east of Bengal, where the Brahmapûtra issues from them at the passes of the Garrow hills. Various animal remains have been found among them; and nummulite limestone prevails at Sylhet. Enormous beds of trap rock or basalt have been traced all over Malwah, southward to Nagpoor, and the western confines of Hyderabad, thence to

the sea near Bankote, and northward to the Gulf of Cambay, covering an area of more than 200,000 square miles, and contributing very materially by their decomposition to the amazing fertility of that part of India.

Coal occurs extensively in the grits bounding the southern slope of the Himalayas, and in other places. The sites at present known are at Burdwan in Bengal, where the coal district extends for sixty miles along the bed of the river Damooda; at Rajmahal, Palamoo, Ridgeghur; the Towa river, Hoshungabad, Jubbulpoor, Sohagepoor, Chanda, and Mardanala, in the Nerbuddah districts; on the Mahanuddy in Cuttack; at Chirrapoongee in Sylhet; Assam; and at Sandoway and Kyook-Phyoo in Arracan. Fossil seeds carbonized have been found in Travancore; and lignite, in Kumaon, Moradabad, Cutch, and Peshawer. Coal has been traced from Burdwan to the westward across the valley of Palamow, and by Sohagepoor to Jubbulpoor, and the neighbourhood of Sak, and the Towa river, a distance of 420 miles. It is found nearly in the same latitude in Cutch, and eastward to the extremity of Assam, forming a great belt, which stretches from 69° to 93° E. long., and between 20° and 25° N. lat.; Chanda, on the Wnrda river, Cuttack and Arracan being its southern boundary, while the vale of Callinger, the river Teesta, at the base of the Sikim mountains, and Upper Assam, form its northern limits. This valuable mineral has also been found at Hurdwar and Attok. In 1837, an extensive bed of fine quality was discovered in a range of low barren hills a few miles from Chunar. Several quarries of fine marble were likewise found in the same vicinity. *Fossil salt* occurs in large quantity in the salt range of hills which crosses the bed of the Indus, extending from the Suffeid-koh to the Jhylum; salt is also produced abundantly by evaporation in the Samber and other lakes of Rajpootana, and in the Sunderbunds on the coast of Bengal; and throughout Rajpootana a saline efflorescence covers the surface, occupying the dried beds of marshes and rivulets, and in appearance exactly resembling hoar frost. The inhabitants call it *reh*, and use it for making soap, an impure sulphate of soda, and other compounds. It consists principally of carbonate of soda, with associated sulphate of soda, and chloride of sodium, and is consequently a natron. *Iron* is found in the Carnatic, and is wrought with great skill, and to a considerable extent at Porto-novo and Nagore. *Gold* and *silver* have been found in Mysore; and particles of gold occur in the beds and at the mouths of the rivers of Southern Malabar. *Tin* and *copper* have also been found. *Diamond* mines are wrought in the district of Punah in Bundelcund, in a matrix formed of conglomerate, with quartzose pebbles; also at Heera Khoond, eight miles east of Sumbulpoor; and diamonds were formerly found also in the Neela-mulla mountains, between the Kistnah and Pennair rivers, in the extinct kingdom of Golconda. Rubies, chrysolites, garnets, amethysts, catseyes, and many kinds of carnelian, jasper, and agate, rock crystal, rock salt, and beautiful felspars are likewise found in many places. *Talc* is found in great abundance in the Mahabaleshwar hills, where it is used instead of glass, being cheaper and more durable.

The soil varies with the geological character of the country. In the deltas of the rivers it consists of a rich alluvium; and in the countries overlaid by the great trap formation, a stiff clay and tenacious surface, which is highly fertile when irrigated, prevails. But for more particular information on this subject, we refer to our subsequent topographical description of the states and provinces of this interesting country.

CLIMATE.—As a great part of India is situate to the south of the Tropic of Cancer, the climate of the low countries is tropical, and the year is divided into two seasons—the wet and the dry. Owing, however, to the great and abrupt elevation of portions of its surface, this country exhibits varieties of climate corresponding in temperature to those which are met with through every degree of latitude from the equator to the poles; so that, while the plains are burnt up by intolerable heat, some of the mountains which overlook them are clothed with everlasting snow. Between these extremes the climate is delightful; and the most favoured regions of southern Europe are rivalled at least, if not surpassed, in amenity and luxuriant productiveness, by the newly explored hill countries of India. The highest degree of temperature is found in the Thur, and other sandy districts near the level of the sea, as in the Northern Circars and the Lower Carnatic, where the climate is the hottest in India. Frost is never felt in the Deccan, nor in the countries to the south of it, except on the summits of the Nilgherries; but the temperature at Hyderabad is sometimes only 6° or 8° above the freezing point. In the table-land of Malwah, or Central India, the temperature is not only mild, but the range of the thermometer is unusually small, seldom falling below 72° in the night and morning, or rising above 76° or 77° at noon. After the close of the rainy season the mornings become cooler,

but the cold weather does not commence till December; when it continues during the whole of January and part of February. During the hot season which succeeds, the parching winds from the north and west, which prevail in most parts of Hindûstan to an intense degree, are in Malwah comparatively mild and of short duration. The thermometer, however, during the day rises sometimes to 98° ; while the nights are invariably cool and refreshing. In the low countries, to the north and north-east, the climate is scarcely less hot than in the Carnatic. In the Thur, the thermometer has been seen to reach 112° ; and even in the plains of Delhi, 5° north of the tropic, and 800 feet above the level of the sea, the ground is parched in summer, and the heat becomes intolerable to Europeans. Yet there, owing to the great radiation from the sandy surface, the cold of winter is sometimes 3° or 4° below the freezing point, and the tanks are entirely frozen over. In Upper India, the climate is generally dry, but is subject to considerable changes of temperature. During three months of the year, the hot winds blow like hurricanes from a furnace; but in the cool season the precautions against cold which are common in Europe are far from being unpleasant. Bengal is free from the great alternations of heat and cold to which the upper provinces are exposed; the climate is moist and humid; the hot winds are unknown, and during the cold weather no inconvenience is suffered; but the heat and the moisture together render the temperature very oppressive during the greater part of the year. The climate of India, even in the north-western provinces, does not permit the use of woollen clothes for more than five months in the year, and sometimes not so long. The spring, or dry season, throughout Gangetic India, lasts about four months, the heat gradually increasing till in May and June the thermometer rises to 100° , and frequently to 108° and 110° . The heat is occasionally modified by terrific thunderstorms, termed northwesterners, which purify the atmosphere, refresh the soil, and give new life to the vegetation. Milder showers also occur, and partially refresh the air. In the north-western provinces a parching wind often blows from the west during the day in the hot season, which is succeeded at night by a cool breeze from the opposite quarter, and sometimes for a considerable time by easterly gales. The cold season, which follows the rains, continues from November till the middle of February, and during all that period the atmosphere is clear, and the thermometer ranges from 65° to 84° . In the Carnatic it ranges from 100° to 106° ; and the cold season is of very short duration. In the low country of the Arcot district, during the hot season, the thermometer rises to 100° in a tent, and to 120° in the sun. At Madras, the average heat is less than at Calcutta, the mean temperature being about 80° . In January, when the temperature is lowest, the thermometer ranges about 75° , and seldom rises above 91° in July. At Coimbatoor, among the hills, the temperature in the cold season varies from 31° to 59° ; in summer, it rises to 64° , 65° , or even sometimes 75° . Near Bangalore, it seldom rises above 82° , or falls below 56° . The hottest months on the west coast are April and May. At Cochin, the greatest rise of the thermometer in April is to 105° . At Bombay, it ranges during the year from 64° to 98° ; at Surat, from 59° to 96° .

The most remarkable peculiarity of the Indian climate is the periodical changes of the wind, which blows alternately for nearly half the year in opposite directions. These are termed the monsoons, and blow from the south-west and the north-east; but it is in the southern or peninsular part of India that their effects are more particularly felt. On the Malabar coast the south-west monsoon commences about the middle of April, and continues till August or September, when it gradually loses its violence, and is succeeded by light variable winds. Towards the end of October, the north-east monsoon begins on this coast, and continues till April. On the eastern coast the south-west monsoon begins in the latter part of March, or beginning of April, but is not regular or strong till June, land and sea breezes being not uncommon in March, April, and May. Even during the three following months, when this monsoon is very steady, a land breeze often blows from shore for twenty-four or forty-eight hours. In September the south-west monsoon declines, and the north-eastern commences about the middle of October; from which time till the beginning of December navigation is rendered extremely dangerous, and a tremendous surf is thrown on the coast. During the prevalence of the south-west monsoon, the coast of Malabar is deluged with rain, in consequence of the clouds which it brings with it being intercepted by the lofty range of the western Ghauts, which protect, in a great degree, both the table-land of the Deccan and the Carnatic from its influence. The rains which fall in Mysore are not more than sufficient to preserve the verdure, and in the Mah-ratta country there is seldom heavy rain for any long continuance, particularly at the commencement of the season; and the country is in consequence but ill supplied

with water. The whole west coast, indeed, and the basin of the Indus, are directly exposed to the full force of this monsoon; while the eastern provinces feel it only indirectly. The clouds which pass to the south of Cape Comorin, are carried across the Bay of Bengal, until, coming in contact with the mountains on the eastern frontier of India, they are diverted from a north-easterly to a north-westerly course, and in that direction the rain descends on Bengal and the adjoining provinces, passing along the face of the Himalayas as far as Afghanistan, where the monsoon gradually becomes weaker, and produces only occasional showers. The rainy season on the Coromandel coast, or the Lower Carnatic, as far north as the mouth of the Godavery, commences, on the contrary, with the north-east monsoon, about the middle of October; but the rains are not nearly so violent as on the west coast, and the rainy season continues only about two months, while in Malabar it usually lasts for eight. The Northern Circars have also some peculiarities of climate. To the north of the Godavery, a westerly wind, accompanied by moderate showers, begins about the middle of June; about the middle, or in the latter part of August, the rain becomes more violent and regular, and continues so till the beginning of November, when the wind shifts to the north-east, and stormy weather occurs. The temperature continues moderate, with little rain, till the middle of March, when the hot season commences; south of the Godavery the climate is somewhat different. During January and February a strong wind blows along the shore from the south; and, as sea-breezes set in every day, the temperature is moderate. In March, the west wind, blowing over a loose parched soil, produces a most oppressive degree of heat; the thermometer sometimes rising to 110° within doors, and seldom falling below 105° . On both coasts the setting in of the monsoons is generally accompanied by violent hurricanes; but storms and sudden rains are more frequent and more violent on the west coast, where the labours of the husbandman are liable to be defeated by two opposite causes, devastating floods, or protracted drought. The east coast, on the other hand, experiences more violent heat and a longer continuance of drought.

VEGETABLE PRODUCTIONS. — The more important of the vegetable productions of India are cotton, indigo, sugar-cane, cajeput oil, caoutchouc, rice, wheat, barley, pepper, ginseng, sandalwood, spikenard, and gigantic bamboos and palms. The chief rice country is Bengal, which produces a surplus for exportation; but rice of superior quality is also grown in smaller quantities elsewhere, particularly in the western provinces. The Madras territory does not produce enough for home consumption; but cultivation is extending, and the inferior kinds of grain are giving place to rice. The wheat grown in the northern and western provinces is of excellent quality, so as to be preferred, even in England, for various purposes. The barley of the north-western provinces is also good, and the Hindoos of the Himalayas distil from it a spirit which is not inferior to Irish whisky. Potatoes have been introduced into every part of India, the cultivation of them is extending rapidly; and they are much liked by the natives. In the eastern and southern provinces the fruits are principally tropical; but in the hill countries of the north-western provinces, apples, pears, grapes, walnuts, strawberries, raspberries, and other fruits peculiar to temperate climates, are now reared in abundance. The grapes of Malwah have long been celebrated; those of Kunnawar are of great variety, and are produced in sufficient abundance, if properly managed, to supply the whole of India with wine. Culinary vegetables now crowd the bazaars. The sugar-cane grows luxuriantly in most places; but the manufacture of sugar is chiefly confined to Bengal and Benares. The coffee of the southern districts of the peninsula is excellent and abundant; that of Malabar is of so superior quality as to be taken to Arabia, and re-exported as Mocha coffee; but the coffee of Tinnevely brings the highest price in the London market. Tobacco grows everywhere luxuriantly, and in many parts has an excellent aroma. Indigo is cultivated extensively in Bengal, Bahar, Oude, Allahabad, and Agra. Cotton, both of the creeper perennial and of the forest tree everywhere abounds; but, owing to improper or defective management, the quality of the material is not equal to that of North America. The East India Company, however, are now taking measures to introduce a proper system of cultivating this important plant, and no doubt is entertained that ere long it will be produced in abundance and of the first quality. Malwah and the north-western provinces seem particularly adapted for its cultivation. Hemp of the strongest quality is grown on the northern hills; and the experiment of growing flax on a large scale has been made in the district of Monghir. Opium is produced in great quantities in Malwah, and the neighbourhood of Patna, and forms a principal article of export in the trade with China. Roses are cultivated to an immense extent at Ghazipore and elsewhere, and are used for making rosewater (a sovereign remedy for all diseases with

the natives), and otto or attar, of which only the weight of a rupee is produced from 200,000 bulbs. Along the coasts of the Bay of Bengal, the coroa and areca nut palms flourish abundantly; of dyes, medicinal drugs, resins, gums, and oils, there are great varieties. Timber of all kinds is everywhere abundant; the forests are numerous and magnificent, and cover a large portion of the country. The maritime provinces produce teak, ebony, and many other species of trees; the interior produces the saul, sissor, bamboos, and rattans, with a great variety of plants which yield excellent materials for cordage. The northern and hill provinces yield at one season European grains, and at another those that are peculiar to the tropics. On the Himalayas, tropical trees entirely disappear at the height of 4000 or 5000 feet; the middle region, between 5000 and 9000, produces oaks, sycamores, elms, hornbeams, pines, barberries, roses, and honeysuckles, all of Indian species, but of European forms; and numerous saxifrages, crowfoots, geraniums, violets, gentians, primroses, and labiate plants. It is this belt also which produces the scarlet rhododendron; and, on its lower edge are found those camellias and tea-like plants which render it probable that the tea-plant itself might be cultivated in this part of India. The third and upper belt extends to an elevation unknown in any other part of the world. Trees of rhododendron and *quercus lanata* are first met with; to these succeed pines and various kinds of firs, some of which are splendid at the height of 11,000 or 11,500 feet; oaks in great variety; yews, birches, sycamores, and poplars, with roses, viburnums, and honeysuckles; above which follow patches of snow, with the Himalayan bamboo, creeping along the ground. To these succeed forests of *quercus semicarpifolia*; and the limits of vegetation are finally marked by a few starved yews and junipers, with primroses in the warmer situations, dwarf species of rhododendron, heather, and willow. The agriculture of this region is as singular as the vegetation; wheat is sometimes cultivated on the top of a mountain, and rice at its foot; maize, millet, and other small grains constitute the rain crop; capsicums, turmeric, and ginger, are grown as high as 4000 feet; wheat is cultivated as high as 10,000 feet, or even, according to Captain Webb, to the height of 12,000 feet. Cotton succeeds even at Kumaon. At Saharunpore, 30° N. lat., 77° 32' E. long., 1000 miles from the sea, and 1000 feet above its level, the East India Company have established a botanic garden, where are collected in one place, and naturalized in the open air, the various fruit and other trees of very different countries, as those of India, China, Cabul, Europe, and America. But the most remarkable vegetable production of India is the banyan tree (*ficus Indica*) the branches of which send out shoots, which fall to the ground and fix themselves there, becoming in time large trunks, and forming a grove around the parent stem. A famous banyan tree has been often mentioned as growing on an island in the Nerbuddah; and one in Mysore is said to cover an area of 100 yards in diameter. — (*Royle's Illustrations of the Botany of the Himalaya Mountains. Introduction.*)

ANIMALS.—India produces many of the most interesting forms of animal life. The elephant ranges wild in the deep forests and jungles of the eastern and southern provinces, and is domesticated throughout the peninsula, where it is still used to swell the gorgeous parade of the court, and to form the humblest of drudges. Wild elephants are particularly numerous in Assam, where they move about in large herds; and from 700 to 1000 are yearly exported from that province. Its huge rival, the rhinoceros, is also found in the thickest parts of the forests of Bengal, but has never been trained to any useful employment. The camel abounds in the sandy regions of the north-west, where it is used as the ordinary beast of burden. Deer, of many species and varieties, are found among the mountains and forests; also antelopes, wild boars, hyenas, jackals, foxes, hares, squirrels, porcupines, hedgehogs, and monkeys, the last being met with in great variety, and multiplied to a vast extent through the superstition of the Hindoos, who consider them as sacred animals. Bears abound in all the wooded mountains; wolves are also numerous in the northern provinces. The wild dogs of the Himalayas are remarkable animals, in form and colour like a fox, though larger; they hunt in packs, give tongue like dogs, have a very fine scent, and by force of numbers they are said at times to destroy the tiger. The buffalo, both wild and tame, is indigenous; one species, the *bos-arnæc*, is noted for its great size and strength; the *yak*, or Tartar ox, is numerous among the Himalayas, where they browse in herds among ice and snow, and constitute, next to corn, the chief wealth of the inhabitants; there are also several species or varieties of beeves, the most common of which is the sacred humped species. The native horse of India is a small, ill-shaped, vicious poney; but fine horses in great numbers are imported from Arabia and Turkestan, and are bred in

the studs. The sandy deserts of Western India are the haunt of the wild ass, which roams in herds along the borders of the Rann of Cutch. In Southern India asses of several varieties are tamed for domestic purposes. The rat tribe abound; one species is of enormous size and very mischievous; some of the smaller species are also very destructive. The musk rat is only about the size of a mouse; and yet when it passes through a room it fills it with a strong perfume, and whatever it passes over becomes impregnated with the taste and the smell of musk. The goat of Cashmere has long been celebrated for its fine wool; and there are also other varieties of the goat. In the country of the shawl-goats some sheep's wool of very fine quality is also produced, and no mutton is finer than that of the grain-fed sheep of the plains of India; but the native sheep are covered with hair instead of wool. Great attention has, however, of late, been paid to the introduction of improved breeds of sheep; the most decisive results have been obtained within the limits of the Bombay presidency, and, from the active measures taken to improve the fleeces, in the extensive pastoral country of the Deccan, the export trade in wool promises to be one of the most valuable and important for Bombay. But, of all the animals of India, those of the feline tribe are the most remarkable, as well for their beauty as for their size, strength, and fierceness. The lion is found chiefly in the northern provinces, near the borders of the plains, and in Kattiwar; but the tiger abounds in all the forests and jungles throughout the country, even up to the glaciers of the Himalayas, and is the grand object of pursuit with European sportsmen. Leopards, ounces, and panthers, of different varieties, are also numerous; one species of leopard, the chittah or cheetah, is employed for hunting wild deer. The ox and the cow are treated with great veneration, and are even worshipped; and cow dung is used by the devotees to adorn their persons.

The birds of India are, in many cases, both splendid and curious. Those of the parrot tribe are the most remarkable for beauty, and for the variety of species; eagles are numerous among the Himalayas, also vultures, hawks, and falcons; many other birds are common, as herons, cranes, storks, flamingoes, pea-fowl, pheasants, geese, swans, partridges, quails, pigeons, gulls, plovers, wild ducks, and the common domestic fowls; the jungle-cock of India is believed to be the original parent of the common cocks and hens of Europe.

Reptiles are numerous; serpents swarm in the gardens, and even intrude into the houses; some are comparatively harmless, but of others the bite is speedily fatal. Water snakes are so particularly numerous along the coasts, that seamen used to ascertain their approach to land by the appearance of those animals. Alligators abound in the rivers and tanks, and particularly among the creeks of the Sunderbunds, along with a great variety of amphibious animals and fishes; the shark infests the mouths of the rivers, as well as the sea-coast, and grows to an enormous size. The best and most highly flavoured fish is the mango, which appears in the lower Ganges in June, and is reckoned a delicacy at the tables of Europeans, especially in the two months during which it is in roe. Mullet is plentiful in all the rivers; and there are also many other kinds of fish which we cannot attempt even to enumerate. The natives are dexterous fishers. Oysters, as well flavoured as those of Europe, but not so large, abound on the coast of Chittagong.

The insect tribes may be said to be innumerable. The heat and the moisture of the climate give incredible activity to swarms of noxious and troublesome insects, and to others of a more showy class, whose large wings surpass in brilliancy the most splendid colours of art. Mosquitoes, moths, and ants of the most destructive kind, everywhere abound, to the intolerable annoyance of both Europeans and natives. The white ants destroy every sort of animal or vegetable substance, and the natives allege that they can even eat rupees. Clouds of locusts are also occasionally seen in the northern provinces. Among useful insects, is the silk-worm, the produce of which has long formed an article of commerce from India: the indigenous species are numerous; others have been introduced from China and Italy; and the greatest attention is now paid to the rearing and training of the worms, and to the preparation of the silk, the quantity and value of which are yearly increasing. Attempts have also been made to introduce the cochineal insect, but hitherto without the desired result; for, after a great deal of trouble and expense, the animals imported and multiplied over the country turned out to be of the wild species, and not of that which produces the finest dye. But the cactus on which they feed, will flourish in the most sterile parts of the country; and, as the experiment with the wild species was so successful, no doubt can be entertained of equal success with the *grana fina* cochineal, whenever it can be introduced. — (*Royle, Productive Resources of India.*)

PEOPLE. — Throughout the wide extent of India there is greater diversity of character and language, physiognomy, manners, customs, and occupations among the natives, than is to be found in the whole of Europe. The country contains at least thirty nations, speaking as many distinct languages, and all strangers to each other; and of each of these languages there are innumerable diversities of dialect. The inhabitants of India are in fact a very heterogeneous people; though they are generally considered as belonging to the Caucasian variety of the human race. In the form of the skull, the features of the face, and the proportions of the limbs, the Hindoos resemble Europeans more than the Persians and the Arabs; but their physical characteristics differ so much in different parts of the country, that no general picture would suit the various dissimilar races. Among the Rajpoots and northern mountaineers are often found men of gigantic stature and proportions; but, in general, the inhabitants of the plains are of shorter stature, and more slender form. They are, however, all of an agile graceful figure, and capable generally of enduring considerable fatigue. Few deformed persons are to be seen, but blindness is not uncommon. Their complexion varies from a dark olive, approaching black, to a light, transparent, beautiful brown, with still an olive tinge, like that of the natives of North Italy, or Provence; nor does this variety of colour seem to depend entirely on climate. "Of the crowd," says Heber, "by whom we were surrounded, some were black as negroes, others merely copper-coloured, and others little darker than the Tunisines, whom I had seen at Liverpool. It is not merely the difference of exposure, since this variety of tint is visible in the fishermen, who are all equally naked. Nor does it depend on caste, since very high-caste Bramins are sometimes black, while Pariahs are comparatively fair. It seems therefore to be an accidental difference, like that of light and dark complexions in Europe, though, where so much of the body is exposed to sight, it becomes more striking here than in our own country." (*Journal*, I. 9.) Their face is oval; the forehead moderately large and high; the eyes and hair black; the eyebrows finely turned; and the nose and mouth have a European cast. The women, when not exposed to the weather, or stunted by hard work, are often very beautiful. Their forms are delicate and graceful; their limbs finely covered and rounded; their features mild; their eyes dark and languishing; their hair fine and long; their complexions glowing; and their skins remarkably soft and polished.

The Brahminical Hindoos appear to have been divided, at some remote era, into four *tchadi* or *castes*, each of which had its peculiar privileges, duties, and laws. These were, 1. The *Brahmins*, priests; 2. The *Kshatryas* or *Khetris*, soldiers; 3. The *Vaisyas*, *Vice*, or *Bice*, merchants and husbandmen; 4. The *Sudras*, artisans, labourers, and servants. A notion has long been prevalent among Europeans, that the Hindoos are a race unsusceptible of improvement, in consequence of every trade and profession being confined to a particular caste, and each caste being placed within certain impassable limits or walls of separation. But this opinion is now ascertained to be very incorrect. If the fourfold division of castes ever existed entire in India, it certainly does not exist now, so far as occupations are concerned. Even before the time of their legislator Menu, more than 3000 years ago, an intermixture of the castes had taken place, and the mixed race thence arising were divided into a great number of new tribes or castes, to which, speaking generally, no employments are forbidden; and the subdivisions of these classes have further multiplied distinctions to an endless variety. "It appears, indeed," says Mr. Colebrooke, "that almost every occupation, though regularly it be the profession of a particular class, is open to most other classes; and that the limitations, far from being rigorous, do in fact reserve only the peculiar profession of the Brahmin, which consists in teaching the Vedas, and officiating at religious ceremonies." (*Asiatic Researches*, Vol. V. *As. Ann. Reg.* 1800.) We have thus the highest authority for rejecting entirely the doctrine that the whole Hindoo community is divided into four castes, whose peculiar prerogatives are kept inviolate by impassable walls of separation; and, instead of this, we find everywhere in the present day, a heterogeneous mass of people of all professions, without a single example in any particular state, or kingdom, or portion of the community, of that fourfold division of castes which has been so confidently insisted on. "I have myself," says Mr. Rickards, "seen carpenters of five or six different castes, and as many different bricklayers, employed on the same building. The same diversity may be observed among the craftsmen in dockyards, and all other great works; and those who have resided for any time in the principal commercial cities of India, must be sensible that every increasing demand for labour, in all its different branches and varieties of old and new arts, has been speedily and effectually supplied, in spite of the tremendous institution of castes; which we are

taught to believe, forms so impassable an obstacle to the advancement of Indian industry." (*India*, I. 32.) In short, the only one of the four castes which still preserves anything like a distinct existence is that of the Brahmins; but even of these, in Bengal alone, Mr. Colebrooke enumerates 168 subdivisions or families, with important distinctions among them. Even their sacred functions have been encroached upon; for the priests throughout India are not all Brahmins, nor are all the Brahmins, priests. According to the Abbe Dubois, the pontiffs and all the clergy of the sect of Siva, in Southern India, are Sudras; but the greater part of the high priests of Vishnu are Brahmins. Many of them engage in the employments of the lower castes; they are found professing almost every trade and calling, and even act as cooks in the kitchens of the despised but wealthy Sudras. Brahmins form a considerable proportion of the British Indian army; they are also usually the political and financial functionaries of the native princes; some of them engage in commerce; some are employed in the appropriate duties of their caste, in religious services at several of the temples, and in literary pursuits; but great numbers of them live by begging, it being one of their highest privileges to live by the industry of the lower classes. Whatever be their occupation they are generally an artful set of impostors. Till recently, the number of them who were respectable for knowledge was very small, while the great majority were devoted to ambition, intrigue, and sensuality; their character being disgraced by a degree of avarice, meanness, and cruelty, which inspired a stranger with no feeling towards them but one of contempt. The charity to which they give so high a place in the list of duties and virtues, has no human beings but Brahmins for its objects. Towards the other castes they cherish no feelings of humanity; but, on the contrary, claim everything from them, while they would give them nothing in return. The Brahmins, indeed, appear to have been originally foreigners in India. They have a tradition that the primitive seat of their ancestors was to the north of the Himalayas; and there we still find the most sacred of all the Hindû places of pilgrimage, the *Manas-sarowar* (lake of intellect), and the river *Brahmaputra* (son of Brahma). Tradition relates that the descent of the Brahmins into India took place by the chasm through which the Ganges flows, and which is called the *Gomukhi* (cow's mouth, or more properly, water spring). This accounts for the very holy character which is ascribed to that great river.

The rest of the Hindoo community is composed of innumerable mixed tribes, not one of which can prove itself to be genuine Kshatrya, Vaisya, or Sudra. It is certain that the professions peculiar to these castes are everywhere usurped and practised by the mixed classes; and all the castes, except that of the Brahmins, are thoroughly intermixed. A real Kshatrya prince or soldier is not to be found; that caste has indeed long since disappeared, and the Brahmins allege that it was entirely extirpated by Parasu-Rama, the sixth avatar of Vishnu. All classes and castes now exercise the profession of arms; and Brahmins, Vaisyas, Sudras, and mixed castes, perform the functions, and hold the rank of princes and rulers, which, by the laws of Menu, belong exclusively to the Kshatryas. The Nairs, for instance, who are the hereditary soldiers and rulers of Malabar, and the warlike Mahrattas, who so long dominated over Hindûstan and the Deccan, are only Sudras. In like manner all the varieties of castes follow the allotted professions of the Vaisya and the Sudra, and practise, without distinction, every branch of agriculture, commerce, handicraft, and menial service. But, though the grand fourfold division certainly no longer exists; and, though people are at liberty to practise what profession or trade they please, without legal restraint, yet they are, nevertheless, so far divided into castes, as to follow very generally and exclusively the profession of their fathers, and do not readily engage in any other, unless from necessity or great temptation. So much does this feeling prevail, that the members of different professions may almost be considered as forming so many distinct hereditary castes; but, instead of *four* only, there are *many hundreds* of such castes, often distinguished by very trivial and even ridiculous customs and practices. "In the neighbourhood of Pûna," says Mr. Elphinstone, "where they are probably not particularly numerous, there are about 150 different castes."—(*Hist. of India*.) Nor do persons of different professions or castes readily associate with each other; they are always under the superstitious dread of coming in contact with something that will pollute them; and, as they thus live much estranged, the various classes come at last, through inveterate usage, not only to lose all mutual sympathy, but to consider each other almost as beings of different races or species, having no common sympathies, feelings, rights, or privileges. These feelings, however, have been of late years considerably modified, through the prevalence of European education and intercourse; and there are unequivocal

signs that caste will ere long fall into disuse, if not into contempt, among the educated classes. It is even alleged, that, were the matter enquired into, there would scarcely be found a single Hindoo family in the whole of Bengal whose caste has not been already forfeited by a violation of its laws; though, by mutual forbearance and connivance, they give each other credit for still possessing it, and though the higher orders still sometimes shew an insolent reverence for its rules. Still, of all these various classes or castes, the greater number are considered as more or less *pure*, and consequently entitled to a certain degree of respect and attention; but, beneath the lowest of the pure castes, there is a very numerous race of outcasts, amounting, it is said, to not less than one-fifth of the whole Hindoo population, to whom the higher classes deny the rights of humanity. These are generally called in the Carnatic *pariahs*, in some places *chandals*; and, whatever may have been their origin, they exist now in the lowest and most deplorable condition. A person of pure caste is contaminated by entering a pariah's house, or eating food prepared by him; some even consider themselves polluted by the touch of a pariah. In the towns these outcasts are confined to separate quarters, and are employed in the meanest and most disgusting occupations. It is on this latter account that Europeans are ranked with pariahs by the *pure* Hindoos; for, like them, they perform indiscriminately all kinds of work, however impure; and eat, with equal indifference, all kinds of food, even that of the sacred cow. Yet even these degraded beings have, among themselves, distinctions of purity, which they observe as rigidly as the purest Brahmins. In Malabar there is a variety of outcasts called *poliars*, who are not allowed even to approach any of the higher castes. If a poliar wish to speak to any of these, he must stand at a prescribed distance, and call aloud; and when a violation of this rule occurs, the person polluted must purify himself by bathing and by reading the sacred books. Nor are even these the lowest; there is in the same province a still more degraded race, called *niadis*, who wander in small companies, and, when they see a passenger, set up a howl to warn him not to approach too near. Slavery, also, both prædial and domestic, prevailed extensively throughout India; there was no law defining the extent of a master's power over his slaves; and the prohibition of importing them by sea, from other countries, had long increased their price, without putting a stop to the traffic. The slaves are generally kept in a very wretched state; and, in some places, as Travancore, the *Merramukhul*, or children of slavery, are so degraded as to be connected in name with everything that is the most revolting, shunned as if infected with the plague, spreading alarm and indignation among the higher classes by their presence, and even defiling towns and markets by their approach. By a law, of 7th April 1843, slavery throughout India has been abolished.

For a long time it was generally believed in Europe that the Brahminical Hindoos abstained entirely from animal food; but, like the doctrine of castes, this has been found to be a most erroneous notion, for they are scarcely less carnivorous than Europeans, and even the purest Brahmins are allowed to eat mutton and venison. Any person, not excepting even a Brahmin, eats readily the flesh of whatever animal has been offered in sacrifice; while, among all the lower castes, mutton, pork, venison, fish, everything, in short, but beef and fowls, are consumed as readily as in Europe. And though intoxicating liquors are prohibited by their religious codes, the prohibition is very generally disregarded by persons of all ranks, both Hindoo and Moslem. Many of them are very fond of liquor, and drunkenness is a common vice of their chiefs. Opium is also used to a great extent; among all classes *bang*, a preparation of hemp, is as common as their rice; and the most respectable Hindoos are seldom an hour without having a large piece of betel and chunam in their mouths. "On the whole," says Captain Ogle (*As. Jour.* October 1840), "though the Indian, from the nature of his climate and constitution, can never become a drunken brawler, yet I should unserupulously average the use of intoxicating drugs amongst all classes of society to be ten times greater than among the population of Great Britain." The poor, whose means will not allow them to procure animal food, consume rice, dhall, and other cheap grains, seasoned with salt, spices, and, if possible, a little fish. On the whole, however, the Hindoos are generally considered by other writers to be an abstemious and very temperate race. The character, indeed, of the Hindoos varies in different parts of the country, as much as the characters of the nations of Europe differ from each other. The Bengalees are weak in body and timid in mind, and are, in general, marked by the accompaniments of timidity, which are fraud and servility; and they seem to deteriorate in respect of bodily strength and mental capacity, as they approach the coast. The Hindûstanees of the upper provinces, above Benares, and particularly the Rajpoots, are a race of men, speaking generally,

not more distinguished for their lofty stature, which rather exceeds that of Europeans, and their robust frame of body, than for some of the finest mental qualities. They are brave, generous, and humane; and their veracity is as remarkable as their courage. The greater proportion of the Bengal army is composed of these Hindustanees; and it is remarked that there are few corporal punishments in that army, the slightest reproach being felt as the greatest punishment. Such is the character given of the soldiers by Sir John Malcolm; and the character of those who follow civil pursuits is much the same as that of the soldiers, allowance being made for their different habits of life. The Hindoo on the coast of Coromandel is a weaker man than the Rajpoot; but even here there are among them many classes who are highly respectable. On the other side of India, the Mahrattas are much superior to the Bengalees, and even to those of the Carnatic.

Besides the Hindoos who profess the Brahminical faith, there are in India multitudes of people and numerous tribes, differing from each other in origin, religion, and habits of life; of these, as well as of the more noted of the Hindoo classes and races, we shall now endeavour to enumerate the principal.

Armenians, who, being expelled from their original country, and scattered over all the regions of south-western Asia, are also to be found in the principal cities and towns of India, following their usual employments of merchants and tradesmen.

Bantans or *Banjans* (*Paneeja*), are a numerous tribe of Hindoos settled in Gujrat, and also to be found in the principal commercial towns along the western coast of the Indian Ocean. They are all merchants and traffickers, and many of them travel to places very remote from India; where they remain for several years, till their success in trade enables them to return to their families. Many of them also finally settle in foreign countries, where they and their descendants continue to use the Gujratee language; which, indeed, may be called the grand mercantile language of the Indian marts. They are generally mild-tempered and well-behaved, and many of them have very extensive mercantile connections throughout the cities of the East.

Batties or *Bhatties*, a predatory tribe in the desert, between Rajpootana and the Indus, remarkable for carrying on their depredations on foot, and still more for the length and rapidity of their incursions; but they have been latterly reduced to order.

Bhils or *Bheels* are an interesting race, considered by some as the remnant of the aboriginal people who were driven to the hills by the Brahminical Hindoos. They are found in the hilly parts of Gujrat and Malwah, and among the hills along the Nerbuddah and the Tuptee. Their habitations are of the rudest kind, and they are in other respects barbarians; but they have been nevertheless considered by some of those best acquainted with them to be generally a better, a nobler, and a more manly race than their Hindoo conquerors. Attempts have been made to wean them from their wild and lawless life, but hitherto without much success. There are among them a great many varieties, some being more civilized than others, among whom human sacrifices still prevail to a great extent. Some of them are even said to be cannibals, and to consider it a part of their religious duties to devour occasionally a member of their own family. They do not burn their dead according to the custom of the Hindoos, but bury them in the ground. They are very expert marksmen with the bow, which in their hands is a formidable weapon. They seldom or never commit aggressions upon the Europeans in their vicinity; and have never been known to abuse the confidence placed in their honour by young officers who sometimes go among them, for a few days' sport in their wild haunts; but they are not so scrupulous with the native servants who are sent among them on any duty.

Bhanras, a sort of separatists from the Newars in Nepal, who are supposed to amount to about 5000. They observe many of the customs of the Bhooteas.

Bohrams, a singular sect of Mahometans, supposed to be of Arab descent, whose molla or high priest resides at Bohraunpoor, form a very large society, spread over the whole of the Deccan, and carry on an extensive trade. They call their sect Ismaeeliyah, and derive their origin from one of the followers of the prophet, who flourished in the age immediately succeeding that of Mahomet.

Bhooteas, *Bhutials*, or *Booteas*, a people of Tartar descent, who possess Bootan, and are found along the hills as far as Kumaon. They are rather an undersized race, more remarkable for tension of sinew than for weight of limb; their features are purely Tartar; their persons are extremely filthy; they are, however, a very quiet industrious people. They shave their heads, and observe many idolatrous rites and customs.

Bringaries or *Brinjara*, and *Loodanahs*, are a sort of travelling merchants, who have no permanent residence, but live in tents, and trade generally in grain, with which they travel from province to province, or follow the route of armies, who in their fiercest contests consider these useful attendants as neutrals. They preserve a marked independence and separation from other races; and their dress and usages are peculiar.

Budliuks, a numerous fraternity of hereditary thieves, who inhabit the almost impenetrable forests which gird the northern border of Oude, and the banks of the river Chumbul. They have no fixed abodes, but live in temporary huts, and shift their residence with a rapidity scarcely credible. They do not willingly allow Mahometans to join them; but they have few Hindoo prejudices, feeding upon every kind of animal, and drinking spirits in large quantities. They speak a peculiar language. Like the Thugs, they are very superstitious, and pay great attention to omens. A great many robberies have been traced to them, and Government is now employed in putting them down.

Cherons, a race of Hindoos who employ themselves as carriers of heavy goods, such as grain, in which they also deal; they possess large droves of cattle for carriage. They are likewise sometimes engaged to protect travellers in the wild parts of the country, and take an oath to die by their own hands in the event of those who are under their protection being plundered. The superstitious thieves of India are always overawed by this threat of the Cherons, whom they hold in great veneration.

Coolies or *Kholies*, a manly and bold-looking, but very ferocious and troublesome people, who are found in Gujrat, among the wilds and jungles of the province. They used to be formidable for their robberies; but seem now, like their neighbours, to give promise of more peaceful conduct under their powerful masters.

Cossyahs, or *Kossyahs* or *Khasyas*, are found in the Khasya hills to the eastward of Bengal, and are a dark and scanty race, but strong and well-formed, and of greater stature than most mountaineers. Their character is peaceable and honest. Their women have handsome features, but are sun-burnt and toil-worn; and their ears and noses are deformed by heavy metal rings, which they wear as ornaments. The Cossyahs are very industrious.

Daoudpistras, a tribe of Mahometans from the district of Shikarpore, who crossed the Indus in the reign of Aurungzebe, and wrested from the Sindees the lands which they now possess. Their whole number does not exceed 50,000; they are a fair and handsome race, and are subjects of Bhawal-Khan.

Dhenwars, the husbandmen and fishers of the western districts of the kingdom of Nepal.

Garrows, a barbarous people who live among the hills to the eastward of Bengal. They are strong, well-shaped men, hardy, and able to undergo much toil, of a surly look, flat cafre-like noses, small eyes, generally blue or brown, wrinkled foreheads, overhanging eyebrows, large mouth, thick lips, round and short face. Their colour is brown, of different shades. They are of a mild disposition, honest, and faithful to their promise. They are more agricultural and industrious than the Kossiyahs, whom they resemble in warlike character, and excel, if possible, in muscular development and bodily strength, though not their equals in external appearance and dignity of carriage. They go almost naked, and lead a very savage life. A Garrow's greatest treasure is as many human skulls as his house can contain; his greatest cordial, a pint of brandy; and his greatest dainty a pudding made by feeding a young dog with as much rice as he can contain, and then roasting him alive till the rice is cooked, when the entire mass is served up for eating. Their country is extremely fatal to Europeans. A branch of the same people, called *Hajirs*, who reside at the foot of the hills, are more civilized, and in religious matters partake more of Hindoo notions.

Gipseys, known in India by the name of *Bazighurs* (players or actors), are divided into seven castes, have all become Mahometans, and are found principally in the upper provinces of Hindustan. They are pretty numerous, and are identically the same people as those found in Europe.

Goonds, *Goonds*, *Khunds*, a savage people who occupy the wildest parts of Gundwana, to which they have given their name, between the northern Circars and the Bengal provinces. They bear a striking resemblance to the African negroes; and are in the lowest condition of savage life; their appearance is generally wretched, though some of their leaders are fine-looking men. They are blood-thirsty, cruel, and revengeful, and offer human sacrifices. Their country is mountainous, rising 2000 or 3000 feet above the level of the sea. The Goonds are a perfectly distinct race from the people of the plains, and speak an entirely different language. They are armed with bows, arrows, and battle-axes. Those who live in Goomsur have been recently reduced to subjection by the British Government.

Ghorkhas or *Goorkhas* are the dominant people of Nepal, but are also found in the hill countries to the westward, which were recently subject to the Nepal sovereigns. They appear to be descended from the Hindoos of the plains, who took refuge in the hills from the Mahometan invaders, but have been intermingled in blood with the Tartar and Chinese races, who seem to have been the original inhabitants of those regions. They are a hardy, brave, active, and enterprising people. In the British Indian military service there are several regiments or battalions of Goorkhas, who make excellent soldiers.

Garungs, a pastoral tribe in Nepal, who shift their abodes between the mountains and the valleys, with summer and winter. They adhere to the Lama priesthood and the Buddhist faith. They cultivate their lands with the hoe, are diligent miners and traders, and employ their numerous flocks in conveying their goods to market.—(See Nepal.)

Jarejahs are the ruling class in Cutch, and are all more or less connected with the family of the Rao, from whom they hold their lands by military tenure. There are about 250 chiefs, who are termed the *Bhyaud* or brotherhood, and form the Rao's hereditary advisers. They are a singularly fine race of people, naturally robust, and peculiarly warlike in dress and bearing; but in their habits dissipated, proud, and cruel. They procure their wives from the Soodahs, a people who live in the Thur, and put their own female children to death, usually by means of opium applied to the mother's breast, or by drowning them in milk. They have numerous retainers called *Grasias*. The western part of Kattiwar is also possessed by Jarejahs, who migrated from Cutch 800 years ago.

Jariyahs, a numerous tribe, who inhabit the lower hilly region between the Kali river and the valley of Nepal. They are now almost all converted to Hinduism.—(See Nepal.)

Jats or *Jauts* are a numerous and turbulent race, who occupy great part of the north-west provinces. They appear to have migrated originally from Turkestan, and still retain the nomadic and warlike habits of the people of that region. Colonel Tod considers the peasantry of north-west India, as well as the Seikhs, to be chiefly composed of this people. The Jauts of Bhurtpore, who are descended from a low Sudra caste, but have assumed the title of Kshetri, or warrior, are distinct from the Jauts of the Punjab.

Jews are found in considerable numbers in Western India; many of whom are enrolled in the ranks of the Bombay army, and form good soldiers. There are two races or colonies of Jews at Cochin, distinguished as the white and the black. According to the missionary Wolff, those are called black Jews who became Jews of their own accord in Malabar, and those who are dispersed in the country, of black and half-black colour. They have neither priests nor levites, nor families nor relations in foreign parts. Their complexion is like that of the Hindoos. They consider themselves as slaves to the white Jews; they pay them a yearly tribute, and also a small sum for the privilege of circumcising their children, and for being allowed during the time of prayer to wear the frontlets. They do not sit in presence of the white Jews, nor eat with them; they are, however, richer, more industrious, and more moral than the white Jews.—(Miss. Journal, l. 478.) The Jews of Bombay are of a higher degree of respectability than in any other part of India; they call themselves Ben-Israel, and there is some reason to believe them descendants of the ten tribes, rather than of the later Jews.

Katkaris or *Katodis*, a people in the northern Concan, who live as outcasts near villages, and are held in great abhorrence by the country people, and particularly by the Brahmins. They derive their name from the occupation on which they are principally dependent for support, the manufacture of the *kat* or terra japonica from the khair tree or acacia catechu.

Katties inhabit Kattiwar, the peninsular part of Gujrat, and are reckoned one of the royal races of India. They are a half-civilized people, whose principal occupation formerly was robbery and piracy; but, now that their occupation is gone, their villages and forts are falling to decay, their country is covered with ruins, their power is broken, and their chiefs are in poverty.

Kookies or *Lunetas*, in the hills north-east of Chittagong, are regarded as the wildest of all the tribes on the eastern frontier.

Mahrattas, a numerous and powerful race, who originally occupied the north-western part of the Deccan. They rose to distinction in the 17th century, under their rajah Sivagee, and, during the 18th, were possessed of a great part of Northern and Central India. Their power was first broken by Ahmed Abdallee, king of Cabul, from whom they sustained a terrible defeat at Paniput in 1761; and they have now completely yielded to the British ascendancy. Their principal remaining chiefs are the Rajah of Sattarah, who is the descendant of Sivagee, the Maharajah Scindiah, Holkar, the Guicowar, and the Rajahs of Kolapoor and Sawuntwarree. The Mahrattas are generally of a diminutive stature, ill formed, and of a mean rapacious disposition. They are of low caste, and divided into three principal tribes, the Koonbees, the Dungar, and the Goalah, or the farmer, the shepherd, and the cowherd. There are certainly minute shades of difference among them, but no distinction of caste, for the genuine Mahrattas are all Sudras; and there are local circumstances which may prevent one family from intermarrying with another; but still every Mahratta can eat with his neighbour, unless he should have become an outcast, an event of no unusual occurrence. The Brahmins who live among them differ in their customs from their neighbours, with whom they will neither associate nor intermarry. The Mahratta language is widely spread, extending from Beder over the whole country to the north-west of Canara, and of a line, which, passing considerably to the eastward of Dowlatabad, takes an irregular sweep till it touches the Tuptee river, and follows the course of that river to the sea.

Mairs inhabit that part of the Aravalli mountains in Rajpootana called *Mairwarra*, or the region of hills, between Komulmalr and Ajmere. They are a branch of the Mainas, one of the original tribes of India, and have lived for ages by robbery, being at constant war with their Rajpoot neighbours. They have yielded, however, to the British power, and give fair promise of becoming a civilized and industrious people.

Maravas inhabit a stripe of land on the coast from Cape Comorin to the north of Ramnad, their principal town. They are a people of considerable antiquity; and there appears some reason to conclude that they are the descendants of the rude tribes who inhabited the peninsula before the Hindoos colonized it, and introduced Brahminism, which they seem to have effected under the command of their celebrated hero or demigod, Rama. The Maravas have also been spread at different times, and in various proportions, through the Tanjore, Madura, and Tinnevely provinces.

Mechis inhabit the forest portion of the Terai, from the Brahmaputra to the Konkinia in Upper Assam, a space 250 miles in length by 12 or 15 in breadth. They live entirely in the forest, without towns or permanent villages, and are remarkably healthy, notwithstanding the malaria, which is so deadly to strangers. They are Sivaïtes, but have no priests or temples, nor distinctions of castes, and no prejudices against strangers. They are industrious and honest.

Moplas or *Moplays* or *Mapellahs*, are the Moslem inhabitants of Malabar, and are a wealthy, intelligent, and enterprising race of people. They enjoy the greater part of the traffic throughout Malabar, and are exceedingly jealous of the interference of any other class in their occupation.

Moslems or *Mahometans* of India, are of various races, partly emigrants from the countries to the west and north, as Moguls, Tartars, Turks, Persians, and Affghans, and partly converted Hindoos. Those of foreign origin are considered as generally superior to the Hindoos; they have greater elevation of sentiment, greater energy of purpose, and dignity of character; they are more luxurious and dissipated, but decidedly more warlike, manly, and cultivated as a people. They are, however, very bigoted and fanatical, but harmonize, notwithstanding, very well with the Hindoos, who even assist in celebrating some of the Moslem festivals; and it is very remarkable that all the butcher meat consumed by the Hindoos is prepared, as far as regards the slaughter and cutting up of the animal, by Moslem butchers only. The Moslems are spread over the greater part of India, but are most numerous in Hindustan, or the upper provinces; they are also congregated in great numbers at Hyderabad in the Deccan. Their number altogether is estimated at about 15,000,000; and they are said to cherish a deadly hatred to their European conquerors, and to be always looking for an opportunity to throw off their yoke. The principal Moslem princes are the family of the Great Mogul, or Emperor of Delhi; the King of Oude; the Nizam, or king of Hyderabad; the Nabob of Arcot; the Nabob of Bhopal; and Bhawul Khan.

Mughs are the indigenous people of Arracan, and the most numerous portion, amounting to six-tenths of its present population. They are a hardy but inoffensive race, of a short muscular stature, with a copper complexion, and round flat features. They are Buddhists in religion, and though in many respects far from civilized, yet in others they equal, or even surpass the most polished nations. There is rarely one of them to be met with who cannot read and write. Their priests appear to be entirely occupied in the education of the children, and in every village there are two or three who are so employed. The Mughs, in their manners, are perfectly free from the servile hypocrisy of their western neighbours, and equally superior to them in probity. — (*Journal R. Geog. Soc. Lond.* 1. 177.)

Nairs are the aristocracy of Malabar, who are divided into eleven ranks; they were formerly the hereditary soldiers of the country, but now engage in handicrafts. Though they are considered to belong to the Sudra caste, they are, nevertheless, a very arrogant race. They do not marry; and their families are continued by the children of their sisters.

Nayaks or *Nayakadias*, a wild tribe who inhabit the Bassia, Chûmpaneer, and Oudipoor jungles, between the Mhye and the Nerbuddah, with a breadth of about 50 miles. They are found chiefly about the centre of that region, and are much scattered towards the extremities, where various tribes of Koolies and Bhils, and a mixed Hindoo population predominate. They are very barbarous, and objects of the greatest terror to their peaceable neighbours. They worship Wagheshwar, the lord of tigers, and Maha, a malevolent female deity.

Newars, a people who originally occupied the more fertile part of Nepaul proper, before the Goorkha conquest of that country. They are generally of the middle size, of great bodily strength, with broad shoulders and chest, very stout limbs, round and rather flat faces, and open and cheerful countenances, but with little or no resemblance to the Chinese. They are peaceable, industrious, and even ingenious; their occupations are principally agricultural; but they are, besides, almost exclusively employed in the arts and manufactures of the country. The greater part of them are Buddhists, and are much attached to their religion; but they do not acknowledge the lamas of Thibet, and have priests of their own. They live in towns or villages, in houses built of brick, cemented with clay, and covered with tiles; they live on buffaloes, sheep, goats, fowls, and ducks, and are immoderately attached to the use of spirituous liquors.

Oorians are the aboriginal natives of Orissa, which derives its name from them. They are a timid people, and the men are so feminine in appearance that it is difficult to distinguish them from the women, both sexes dressing alike. They are exceedingly dissolute and obscene, and more versed in low cunning, dissimulation, and subterfuge, than perhaps any other people of the East. They are, however, honest and industrious.

Parsees, a numerous colony of fire worshippers, who left Persia to avoid the persecution of the Moslem conquerors, and have settled in Gujrat and Bombay. Their total number is about 50,000, of whom 20,000 are found in Bombay; the remainder are to be found chiefly at Surat, Baroach and its neighbourhood, the Northern Concan, and Ahmedabad. The opulent among them are merchants, brokers, ship-owners, and extensive land-owners; the lower orders are shop-keepers and artisans, and are in great request by European families as domestic servants, for they are much less intolerant in their principles than either Moslems or Hindoos, will perform a greater variety of work, and are more agreeable as domestics. The Parsees are divided into two classes, clergy and laity (*mobed* and *bedeen*.) The clergy and their descendants are very numerous, and are distinguished from the laity by wearing white turbans; but, excepting those particularly selected for religious service, they follow, like the laity, all kinds of occupations. They have a few plain churches, where they assemble for prayer; these are crowded daily by the clergy, but the laity attend only on certain days. They neither bury nor burn their dead, but place the bodies in open buildings, where they leave them to be consumed by the elements or the birds. The greater part of the wealth of Bombay is in the hands of Parsee merchants, who are a hospitable people, liberal but not extravagant in their expenditure. Their houses are often furnished in the European style, and they have adopted from their rulers many customs and habits still unthought of by the Moslems and Hindoos. Their women, though not jealously excluded from all society, are rather closely kept. Their charities are munificent; they relieve the poor and distressed of all classes, and maintain their own poor in so liberal a manner, that a Parsee beggar is nowhere to be seen or heard of. Their sacred books are written in the Zend and Pehlevi languages, the genuineness of which is unanimously opposed by English authorities, who consider them inventions of the Parsee priests; while, on the contrary, the continental European scholars are equally unanimous in vindicating their genuine antiquity.

Patans are people of Affghan descent, who inhabit different parts of Hindustan, and are the prin-

cipal people of Bhopal. Their name is believed to be a derivation or corruption of *Fushtoo*, the native name of the people whom the Persians call Affghans.

Pucharries are the inhabitants of the Rajmahal hills, and the hill country between Boghpoor and Burdwan, in the north-west of Bengal. They are quite distinct from the Hindoos in features, language, civilization, and religion; they have no castes, care nothing for the Hindoo gods, and are even said to have no idols. They are middle-sized, rather little men, but very well made, with remarkably broad chests, long arms, and well-formed legs, broad faces, small eyes, and turned-up noses; in other words, they are a short, thick-set, sturdy race, with the African nose and lip. They are an idle and dirty people, not fond of hard work, but orderly and loyal, and they hate and despise lying so much, that in the courts of law the evidence of a Pucharrie is always trusted more than that of half-a-dozen Hindoos.

Rajpoots (sons of kings), the noblest of the Hindoo races, are the dominant people of North-western India, which from them is named Rajpootana, Rajwarra, or Rajahstan. They are a tall, vigorous, and athletic race, with rude habits, and are devoted to war and robbery. They form the best soldiers of the Bengal army, though not quite so orderly and obedient to discipline as their comrades of the Brahminical and other castes. Their chiefs boast of a long line of ancestry, and are considered as of more illustrious birth and of higher rank than any other Hindoo princes. A sort of feudal system is established among them; the subordinate chiefs holding their lands on condition of military service. The Rajpoots pretend to be the lineal descendants of the lost Kshatraya, or royal and military caste; but the Brahmins deny it, and allege that they are sprung from the Vatsya caste on the paternal side, and from one of the mixed castes on the maternal. Yet the Rajpoots are, even more than the Brahmins, the representatives of Hinduism. In them are seen all the qualities of the Hindoo race unmixed, and displayed in the strongest light. They exhibit the genuine form of a Hindoo community, consisting of the most discordant materials, and combining the most extraordinary contrasts; unconquerable adherence to native opinions and usages, with servile submission to any foreign yoke; an unclinging priesthood, ready to suffer martyrdom for the most petty observance of their professed faith; a superstition which inspires the resolution to inflict or to suffer the most atrocious barbarities, without cultivating any benevolent sentiment, or enforcing any social duty.—(*Sir J. Mackintosh; Memoirs, l.*) The poorest Rajpoot of the present day, says Colonel Tod, retains all the pride of ancestry, often his sole inheritance; he scorns to hold the plough, or to use his lance except on horseback. The Rajpoots are divided into thirty-six royal races all descended from the sun and moon, or the Surya and Induvansa races; and to each family or tribe is attached a bard, who is acquainted with all their peculiar privileges and customs, religious tenets, and ancient history. The great families use armorial bearings; and, in memory of their reputed ancestors, many of them wear round their necks badges of gilt metal, with the images of the sun and moon on horseback. They are extremely attached to their chiefs, to whom they yield a sort of feudal obedience. They hold their lands at low rents, on condition of military service, each village or township furnishing its contingent of horsemen on the shortest notice. Family feuds are frequent, and last for centuries. Hence murders, burnings, poisonings, mingle in their domestic annals with traits of generosity and romantic valour; and the modern Rajpoots differ little in their manners and prejudices from their ancestors.—(*Annals of Rajahstan, l. 3.*) The Rajpoot states were first brought within the pale of the British ascendancy in 1817; but their turbulent disposition, and their impatience under the yoke of what they consider ignominious treaties, have kept them in a state of continual anarchy and revolt. Their extravagant dissensions, and endless dissatisfaction, have at last made the British Government subject them to an active political superintendence; but no measures have yet been taken to institute among them regular forms of government; and, although they have been taught to acknowledge the British supremacy, and to feel their own weakness, they have hitherto been permitted to indulge in all the excesses of internal discord, and futile animosity. Yet, amidst all their social disorganization, lie concealed the elements of national worth and greatness, with qualities which may be wrought into the elements of future prosperity. The opening of the Indus, and the consequent extension of trade, accompanied by the gradual progress of knowledge, will be of importance in purifying the noxious atmosphere of Rajpoot feelings and politics.

Ramossies, a predatory tribe in the neighbourhood of Poonah and Sattarah, have great faith in destiny, and live in little or no fear of law or punishment. They are worshippers of the *lingam*. Oomiah, one of their principal, most adventurous, and most successful chiefs, was tried at Poonah, and hanged in 1832.

Rohillas, a numerous people of Afghan descent, who possess the country east of Delhi, but are now wholly subject to the British Government. They are also called *Patons*, and are professors of Islam. They are a tall, handsome race, and, compared with the southern Hindoos, are of fair complexion; they are a clever and animated people, but devoid of principle, false, and ferocious. Crimes, both of fraud and violence, are very numerous, and perjury is almost universal. Rohileund is infested with a crowd of lazy profligate *savars*, or gentlemen, who, though not possessed of a rupee, conceive it to be derogatory to their gentility and to their Patan blood, to apply themselves to honest industry. They prefer living on the tradesmen and farmers, or existing as hangers-on to the few noble and wealthy families that yet remain in the province. The Rohillas were originally a band of Patans or Affghans, who came into Hindustan about the year 1720, in quest of military service, and soon after made themselves masters of the district which bears their name, and where they rose to considerable power and influence. But their combined forces were completely defeated by the British at the battle of Cutturah or Kuttrah in 1774, an event which terminated the Rohilla sway; and nearly the whole of Rohileund was ceded by the Nabob of Oude to the British government in 1801.

Sikhs or *Sikhs*, a religious community which, after the downfall of the Mogul empire, rose to great political power, and now possess the whole of the Punjab, and some adjacent territories.—(*See ante, p. 126.*) Their fatherland is the Doab or peninsula between the Ravee and the Sutlej; but few are to be found 30 miles below Lahore. There are none westward of the Jhylum; and even to the eastward of Lahore, where they are most numerous, they do not form one-third of the population. They are a robust and athletic race, with sinewy limbs, and tall stature. The genuine Kalsa or Singh knows no occupation but agriculture and war. They are, however, very tolerant; they have no prejudices of caste; nor are they averse to fermented liquors; but hold tobacco in abhorrence.

Shekhawatties, a tribe of predatory Rajpoots, living in the desert north of Jyepoor, have been recently reduced to order by the British Government, after a great deal of trouble and harassing petty warfare.

Soodahs, a rude people of noble, or perhaps Rajpoot lineage, who live in wands or grass huts in the Thar or great desert, in a state of peculiar privation and misery. They are by profession shepherds, but frequently commit forays on their neighbours. They find, however, their principal source of wealth in the beauty of their daughters, for one of whom a rich Mahometan will sometimes pay 10,000 rup. or (£1000); and they also furnish wives to the Jardahs of Cutah.

Todas, Tudarers, Thudarers, or Todcers, a small tribe who occupy the highest valleys of the Nilgherries. They are tall, athletic, with a bold bearing, and long black hair, Roman noses, and large full eyes; they live in patriarchal simplicity, raising no grain, nor rearing any domestic animal but the cat. Their wealth consists in herds of buffaloes; their principal occupation is to tend and milk their herds, and prepare the milk for use or exchange; and the little commerce they carry on is in

butter, which they exchange for grain. They dwell in families, in small clusters of huts, migrating from place to place, according to the convenience of pasturage. They are strangers to war, and have no weapons of attack or defence, yet their demeanour is hardy and fearless; they are strictly honest, and, without fastening their doors day or night, live in perfect safety. They are ignorant of the mythology, language, learning, and manners of the Hindoos; their temples are dark hovels, in which a little shining stone is the only object of worship. They are certainly an idle race, but are not apathetic. They have no civil or political government, but yet are quite orderly. They are highly respected by the other people of the hills, who, though richer, more numerous, and more civilized, look upon the Todas as a superior class, appeal to them in their disputes, and pay them tribute; their whole number is said to be less than a thousand.

Thugs or Phansygars, a singular class of professional murderers, do not form a distinct tribe or sect, but rather a confederacy, consisting of both Moslems and Hindoos. They have been found chiefly in Central India, on both sides of the Nerbuddah; but used to spread themselves over the country in all directions for the purpose of plundering travellers and others who came within their reach; always murdering them by strangling them with a noose, and carefully avoiding bloodshed. They were devout worshippers of the goddess Bhovani (Kali), and were directed in all their proceedings by omens, which they believed to be sent by her for their guidance. They generally travelled in parties, and consisted of people of all sects, the Moslems amongst them assuming Fatima, the daughter of their prophet, to be the same person as the Hindoo Kali. A few years ago the Thugs attracted the particular attention of the British Government, who are now employed in putting them down, and in endeavouring to extirpate so mischievous a brotherhood. Many most appalling atrocities have been brought to light; many hundreds of the gang have been hanged, transported, or imprisoned; yet the survivors, such is the force of superstition, ascribe their misfortunes, not to their crimes against humanity, but to some neglect of their duties towards their patron Kali, who, they think, has in consequence abandoned them.

Wagheas, a predatory tribe of Rajpoot descent in Kattiwar, near Okamundel.

Waralia, a wild tribe who inhabit the jungles and forests of the Northern Concan, and speak the Mahratta language; their principal object of worship is Waghia (the lord of tigers), a shapeless stone, smeared with red lead and ghi, but they have no priests.

The *Europeans* in India consist chiefly of natives of the British islands, French, Danes, and Portuguese, with their descendants. The British are completely the ruling class, perform all the functions of supreme government over the greater part of the country, and fill all places of power and profit, in the presidencies into which the British territory is divided. They are exclusively the officers of the British Indian army, and the greater number of them, either in a civil or a military capacity, are the servants of the East India Company, or in their employment. The independent settlers are very few; and the total number of Europeans, including the Queen's regiments, throughout India, is believed not to exceed 40,000, of which number so few as one-eighth are not in the employment of Government. Since the renewal, however, of the Company's charter in 1833, the right of independent settlement is so much less fettered than it was previously, that it is probable the number of European immigrants will rapidly increase.

The *East-Indians*, called also *Anglo-Indians*, *Indo-Britons*, *Eurasians*, or *Half-castes*, are the offspring of European fathers by native mothers. No proper census has ever been taken of their number, but it appears to be very considerable, and to be always increasing. They are found chiefly in the capitals of the three presidencies, and in the neighbourhood of the principal civil and military stations. They are in general tolerably well educated; and the whole of the class speak English as well as the vernacular tongue of their native province. They almost monopolize the situations of clerks and accountants in the Government offices, as well as in those of public servants and private merchants. The ladies of the class, though feelingly conscious of the distinction between them and genuine Europeans, yet look upon the young men of their own colour as beneath them. In the seminaries and asylums of Calcutta, there are generally upwards of 500 half-caste girls, illegitimate daughters by native mothers of the higher ranks, who receive a genteel education.

The *French* and the *Danes* are found of course at the several settlements belonging to their respective governments; but their number is relatively small. The descendants of the *Portuguese*, once masters of the coasts of India, are believed to amount to 600,000, who are all Roman Catholics. Most of them occupy only the lower places in the community, and have sadly degenerated from their renowned forefathers; they have now no tie which unites them with Portugal, of which, indeed, they are altogether ignorant. Their condition and state of civilization are nearly the same with those of the aboriginal natives among whom they live, and are frequently much lower. They are, indeed, very ignorant, and are sunk into a state of idolatry and superstition not far removed from heathenism; but their being nominally Christians, and their steadiness in adhering to their faith, preserve them as a distinct class. "In most parts of India no reproach is more cutting than to be called a Portuguese; for the name is supposed to combine all that is most depraved in wickedness with all that is most despicable in weakness."—(*Major Bevan*, II. 88.)

The *Chinese* are fast establishing themselves in Calcutta, where their superior skill as artizans procures them ready and profitable employment. And besides those which we have enumerated, there are various other petty tribes, races, and distinctions of

class, in all parts of India, some of which are partially civilized, while others remain in the lowest stage of savage life. As no complete census has ever been taken, the total amount of the population of India is not known with any degree of certainty. Mr. Martin estimates it at 200,000,000, which is only 90 inhabitants to the square mile; and of that number much more than one-half are British subjects.

LANGUAGES. — The learned language of the Brahminical Hindoos is the *Sanscrit* (*sancta scriptura*), in which most of their sacred books are written, and which, though no longer spoken, appears to be the parent of, or at least to be intimately connected with, many of the living tongues and dialects of India. It has also been found to have a remarkable affinity with the Greek, the Latin, and the Teutonic languages of Europe, which are now believed to have all sprung from one original tongue spoken in some central part of Western Asia, from which they diverged at a very remote period. The Sanscrit is written with 52 letters, for several of which there are no corresponding characters in the alphabets of Europe. It has also thousands of syllabic abbreviations. Harmonious and grave, with a just proportion of consonants and vowels, rich in terms, free and flowing in its pronunciation, possessing numerous conjugations, tenses, cases, and particles, this language may be compared to those which are considered the most perfect and most refined of the original tongues. The *Pracrit* is softened Sanscrit, and is spoken by the women in their classic dramas. In modern India there are at least thirty nations, who speak as many distinct languages. The principal of these are: the *Bengalee*, spoken in Bengal Proper by about 30,000,000 people; *Hindūstānee*, spoken in Hindūstān or the upper provinces, in a variety of dialects, by about 20,000,000; the *Maharatta* or *Mahrati*, in the western parts of the Deccan; the *Gurjara*, in Gujrat and the adjoining districts, including the old provinces of Khandeish and Malwah; the *Tamul*, in the country south of Madras; the *Telinga* or *Kalinga* or *Teloogoo* or *Tenuyu*, spoken to the north of that city for about 500 miles along the coast, and 200 inland, by about 8,000,000 of people; pervading a semicircle of which Rajamundry may be considered the centre, while the radius extends to Madras. It has a peculiar alphabet. The *Carnataca*, spoken in the Balaghaut or Upper Carnatic, and also in some districts on the west coast; the *Cashmerian*; *Dogura*; *Ooch*; *Sinde*; *Cutch*; *Concanese*; *Punjabee*; *Bicanere*; *Marwaree*; *Nepalese*, &c. In short, it has happened in India, as in every other country where there is no popular literature, nor free and regular communication among its people, that every small community has a dialect of its own, which is intelligible only to its own members or their immediate neighbours; though these dialects may be, as they often are, merely modifications of the one original tongue spoken by the people from which the various communities and tribes of a province or a country may have sprung. For a long time the modern Persian was used by the British Indian Government as the language of their state papers and courts of justice; but that practice is now abolished, and Hindūstānee substituted for general purposes; for all ordinary local purposes, however, the vernacular language of the country is now the language of the courts of law and government. English, however, is everywhere making rapid progress. The spirit of change, or probably the desire of improvement, has seized upon the people; men of all classes have become desirous to learn English, as the only road to the treasures of knowledge which that language contains, and are ambitious to give their children an English education; so that the day is perhaps not far distant when we shall see our own speech spread over all India as the common language of literature, science, government, and religion.

EDUCATION. — Every village can boast of its schoolmaster, who forms as regular a constituent member of the community as the priest or the barber; and the school is open to all boys of pure caste. The ordinary routine of education generally commences in the fifth year, at which time the child is either taught by his father to write the alphabet, or is sent for that purpose to the village school. From the simple characters the pupil proceeds to the compound letters, to words, and to the figures of arithmetic. But the blessings of superior education are very partially diffused even among the Brahmins, most of whom are ignorant of their sacred professional language, the Sanscrit. Among the warlike tribes of the north, music forms a part of education, and one of their principal amusements, though it is indecorous to be considered a performer. Some of the higher classes have proceeded so far in their literary education as to possess an easy epistolary style; though most of the Rajpoots can only read, and sign their names; considerable intellectual energy, nevertheless, is sometimes exhibited among them. Though the gains of the schoolmasters are very small, yet they are generally respectable men. The sacred books

being the depositories of science and law as well as of religion, are necessarily the great objects of study to the native literati, some of whom have acquired a great reputation for learning; but they confine themselves entirely to the sacred books themselves, and to the endless commentaries with which they are loaded, seeming never to think it possible, even if it were lawful, to seek for knowledge anywhere else. The consequence is, that their science is very antiquated, and too often erroneous.

At the last renewal of the East India Company's charter, it was stipulated that £10,000 a-year should be devoted out of the surplus revenues of the country to the purposes of education; and that sum the Government has placed at the disposal of the General Committee of Public Instruction, established at Calcutta in 1823, for the promotion of education, and of the improvement of the morals of the people. At different times the Government has established, or sanctioned the establishment, of colleges for teaching the higher branches of education: but of these our limited space will allow us to mention little more than the names. The Calcutta Madrisa, or Mahometan College, established by Warren Hastings in 1781; the Benares Hindoo Sanscrit College, 1791; the Vidalya, or Anglo-Indian College, Calcutta, 1816; the Calcutta Hindoo Sanscrit College, 1821; Agra College, 1822; Oriental College and English College at Delhi; the English College, Calcutta, for the admission of a certain number of the more advanced pupils from the Hindoo and Mahometan Colleges, for gratuitous instruction in science and literature by means of the English language; Bishops' College, Calcutta, founded in 1820, established by the Society for the Propagation of the Gospel, by which it is supported, and immediately regulated; the Martiniere, founded at Calcutta by a legacy of General Claude Martin, and opened in 1835 for the children of Europeans, with a Principal and two Professors; the Benares English College; Moorsheadabae College; Medical College at Calcutta; University of Madras; Elphinstone College, Bombay; Dr. Bell's School, Madras. There is, besides, a great number of native minor colleges, and schools, throughout the provinces; and great efforts have been made, and are still making, as well by Government as by religious and educational societies, both in Britain and in India, for the diffusion of education throughout the country; and, fortunately for their success, the natives everywhere, and of all classes, exhibit the greatest eagerness to avail themselves of an English education for their children, and some of the colleges and schools have already produced accomplished scholars. The schools established at the capitals of the presidencies by the General Assembly of the Church of Scotland, have also assisted in paving the way for the rapid progress of education in India.

RELIGION. — About nine-tenths of the people are professors of Brahminism (see page 124); but with endless shades of difference, and in numerous sects, each party devoting itself more or less exclusively to the worship of one particular god or set of gods. There are five sects which exclusively worship a single deity, and one which recognises all the five deities which are worshipped by the others. These five sects are the Saivas, who worship Siva; the Vaishnavas, who worship Vishnu; the Saurias, who worship Surya, or the Sun; the Ganapatyas, who worship Ganesha, the god of wisdom and policy; and the Sactis, who worship Bhovani or Paivati, the wife of Siva; the sixth sect is the Bhagavatis. Vishnu and Siva, the second and third persons of the trimurti, seem to be the most common objects of worship, under various names and forms, while Brahma, the first of the three, has only one temple — that at Poshkur, near Ajmere. According to the Hindoo mythology, Vishnu has often appeared on earth, for the purpose of destroying evil spirits and rulers, spreading religion, protecting its votaries, and for other beneficent purposes; but the most celebrated of these *avatars*, or incarnations, are those in which he appeared in the forms of Krishna and Rama-chandra, who are consequently regarded as the two principal demigods; and of these the former is a favourite object of worship. Rama-chandra was Vishnu's seventh avatar, when he appeared in the person of a virtuous and courageous prince, the son of the sovereign of Ayodhya (Oude) to punish Ravana, a monstrous giant, who then reigned over Lanka (Ceylon); a mission which he successfully accomplished. His history forms the subject of the *Ramayana*, one of the finest of the Hindoo epic poems. Krishna was the eighth avatar. This personification of the deity was born in Mathura (Muttra), and was the son of Vasudeva and Devaki, sister to Cansa, the king of that country. In this avatar, Vishnu is said to have appeared in all the splendour of deity, accompanied by the other gods; but the Brahmins affirm, that though all the seas were ink, and the whole earth paper, and all the inhabitants were employed solely in writing day and night for a hundred thousand years, it would be impossible for them to describe the wonders which

Krishna wrought on earth during his reign of a hundred years. Be this as it may, Krishna is now most extensively and enthusiastically worshipped by the Hindoos of Bengal, and the north-western provinces, where he is the great delight of the females. The Vaisnavas claim for their deity the title of Iswara or the Supreme Lord; but his claim to this honour is contested by the Saivas, who bestow on Siva the title of Buhbandiswara or Lord of the Universe; and frequent, and sometimes sanguinary conflicts take place between the rival sects in support of the pre-eminence of their respective gods. Siva is principally worshipped under the form of the *lingam*, which is nothing more than a smooth black stone, nearly in the form of a sugar-loaf, with a projection at the base resembling the mouth of a spoon. It is indeed an obscene representation, in one image, of the active and passive generative powers. The number of the worshippers of this symbol is beyond comparison greater than that of the other deities or their emblems. The bull *Nandi*, on which Siva rides, is also held in great reverence, and has many living representatives, called brahminy bulls, which infest the cities, and are fed by the people. Siva has besides many other names, the principal of which is that of *Maha-deo*, the Great God. *Kali* (Kawlee), the wife of Siva, known also by the names of Bhavani, Doorga, Ooma, Syilla, &c., is likewise held in very great veneration; but she is represented as ferocious and blood-thirsty, the terror alike of gods and men. She is, however, at the same time, the patron deity of poetry, of arms, and of arts; and is, in short, mythologically considered, merely the energy of Siva in his destructive character of *Kal* or Time. Kali is the name-mother of the city of Calcutta (*Kalighaut*), which has been built beside a *ghaut*, or flight of steps, leading from her temple to the sacred Ganges. But whatever be the object of worship, the Hindoos are all equally idolaters; their rites, ceremonies, and superstitions, are of the most grotesque irrational, and revolting kind; and the effects of the whole system upon their moral character, are thus summed up by Bishop Heber, from the results of his personal observation:—"Of all idolatries which I have ever read or heard of, the religion of the Hindoos really appears to me the worst," in respect of "the degrading notions which it gives of the deity, the endless round of its burdensome ceremonies, which occupy the time, and distract the thoughts, without either instructing or interesting its votaries; in the filthy acts of uncleanness and cruelty, not only permitted, but enjoined, and inseparably interwoven with those ceremonies; and in the total absence of any system of morals, or any single lesson which the people ever hear, to live virtuously, and to do good to each other. In general, all the sins which a Sudra is taught to fear, are, killing a cow, offending a Brahmin, or neglecting one of the many frivolous rites by which their deities are supposed to be conciliated. Accordingly, though the general sobriety of the Hindoos affords a very great facility to the maintenance of public order and decorum, I really never have met with a race of men whose standard of morality is so low, who feel so little shame in being detected in a falsehood, or so little interest in the sufferings of a neighbour not of their own caste or family; whose ordinary and familiar conversation is so licentious; or, in the wilder and more lawless districts, who shed blood with so little repugnance." With the Hindoos, every thing is mixed up with their religion; their sciences, their arts, are all revealed from Heaven. Their religion mixes itself with their legislation, determines their habits, fixes their customs, establishes their institutions, forms their national character; it guides their science, and controls every branch of intellectual pursuit. Undo, therefore, their religion, and you undo the whole system of Hinduism; overthrow their science, and their religion perishes along with it. In an essay read at the last examination of the General Assembly's school (22d January 1841), at Calcutta, by Mahendra, a Hindoo convert to Christianity, a rapid view is taken of the leading branches of Hindoo literature, science, philosophy, and theology, and it is shown in succession how sound knowledge must inevitably demolish the whole. Considering that there were hundreds of intelligent Hindoos present, and that they could patiently listen to such a demonstration from one of their own countrymen, we may well conclude, says Dr. Duff, that the spell and enchantment of Hinduism are fairly broken in the metropolis of British India.

The doctrines and precepts of the present religion of the Hindoos, are contained in Scriptures called the *Puranas*, of which there are eighteen, all alleged by their followers to be the works of Vyasa, the compiler of the Vedas; but they were in reality, according to Professor Wilson of Cambridge, composed by different authors, between the eighth and the sixteenth centuries of our era, though many parts of them are formed of materials of much more ancient date. The *Puranas* contain theogonies,

cosmogonies, philosophical speculations, instructions for religious ceremonies, genealogies, fragments of history, and innumerable legends relating to the actions of gods, heroes, and sages. Most of them are written for the purpose of supporting the doctrines of particular sects, and all are corrupted by sectarian fables; so that they do not form a consistent whole, and were never intended to be combined into one general system of belief. They are all, notwithstanding, received as incontrovertible authority; and as they are the sources from which the present Hindoo religion is drawn, it must necessarily be full of contradictions and anomalies. Colonel Kennedy, however, strenuously controverts this opinion of the learned professor, and maintains their genuine antiquity and unsectarian character. (*As. Journal*, 1840-41.) The doctrines of the more ancient religion are contained in the *Vedas*, which are incontestibly of great antiquity. Their primary doctrine is the Unity of God. "There is in truth," say repeated texts, "but one Deity, the Supreme Spirit, the Lord of the Universe, whose work is the Universe." Among the creatures formed by the Supreme Being are some superior to man, who should be adored, and from whom protection and favours may be obtained through prayer. The most frequently mentioned of these are the gods of the elements, the stars, and the planets; but other personified powers and virtues likewise appear. The three principal manifestations of the Divinity, Brahma, Vishnu, and Siva, with other personified attributes and energies, and most of the other gods of Hindoo mythology, are indeed mentioned, or at least indicated in the *Vedas*; but the worship of deified heroes forms no part of the system. Brahma, Vishnu, and Siva, are rarely named; they enjoy no pre-eminence, and are never mentioned as objects of special veneration; and Mr. Colbrooke could discover no passage in which their incarnations were suggested. There seem to have been no images and no visible types of the objects of worship. (*Elphinstone's History of India*, I.)

Buddhism (see p. 125) appears to have been at one time extensively prevalent in India; and Buddha is even claimed by the Brahmins as one of the avatars of Vishnu; but as Buddhism strikes at the root of the supremacy and pretensions of the Brahmins, it seems to have excited their violent animosity, and to have yielded at last to their unrelenting persecution. Buddhism is pre-eminently the religion of reason, while Brahminism depends entirely on tradition and authority. The Mughls of Arracan and the people of Bootan are the only Buddhists now on the continent of India; but Buddhism is still the national religion of Ceylon. The late Mr. Prinsep ascertained, in the course of his learned researches, that, at the period of Alexander's conquest (B. C. 332-320), India was under the government of Buddhist sovereigns, and that the earliest monarchs of the country are not associated with a Brahminical creed or dynasty; and Colonel Sykes (in a paper read before the Royal Asiatic Society, 30th June 1840), states, that he had arrived at the conclusion that Brahminism, such as it has been known in Europe, is of comparatively modern date; that it was introduced into India by a tribe foreign to the country, at least to India south of the Punjab; and that it did not reach the plenitude of its power till after the decline of Buddhism; that the Buddhism of Sakyamuni prevailed universally over India and Ceylon from the 6th century B. C. till the 7th century after Christ, and was not entirely overthrown in India till the 12th or 14th century; that the religion of the preceding Buddhas prevailed from a very remote period; that the followers of the mystic cross, "the doctors of reason," whose characteristic emblem was the Swastika, were Buddhists; that India was at that time divided into small monarchies, though occasionally consolidated under one prince; that there is no evidence of the dominion of princes of the Brahminical faith during the prevalence of Buddhism; that Brahminism, as it is taught by the Puranas, did not spring up till the decline of Buddhism; that the tribe of Brahmins were originally a secular, and not a religious community, and did not acquire political influence until about the period of the rise of the Rajpoot states, and the invasion of the Mahometans; and, that the division of castes was secular, and that similar divisions existed among the Buddhists. He then alludes likewise to the fact, that the oldest inscriptions found in India all relate to Buddhism or the fire worship, and are in a form of the Pali, and not in the Sanscrit language.

The *Jains* are a numerous sect in Central and Western India, and are also found in Mysore. They profess to believe in one God, possessing the attributes of wisdom, power, eternity, and intuition; but affirm that the government of the world is independent of him, that matter is eternal, and that the harmony of the visible world is dependent only on natural and organic laws, which must be everlasting. They pay little respect to the Hindoo gods, and hate the Brahmins; but have, nevertheless

many customs in common with them. They burn their dead, pay great reverence to their gurus or spiritual teachers, and believe that a life of solitary privation will entitle a devotee to be absorbed into the Supreme Being. They are divided into two classes, the Shrawuks and the Lunkas; the former of whom are worshippers of the images of twenty-four deified saints called Trithacars; while the latter abhor idols, and are more strict than the Shrawuks in observing the laws against the destruction of animal life. The Jains have numerous temples in Kattiwar, Gujrat, and Rajpootana; the most splendid of which are on the sacred mounts, Aboo, Girnar, and Satrunga. One of their principal places of worship is also at Sravana-belgula, 36 miles N. by W. of Seringapatam. The Jaina religion is closely allied to Buddhism, and every circumstance connected with it demonstrates its early and extensive prevalence in Western and Central India. The chief merchants and men of property in those regions are still generally Jains. It appears also that a hard struggle had at an early period taken place between Brahminism and Jainism, in which the latter was finally crushed though not extirpated.

In Malabar and the Carnatic there are about 220,000 *Syrian Christians*, who are divided into three sects or denominations:—1. Those of the pure Syrian church, in Quilon and its neighbourhood; 2. The Syro-Roman Churches, who have adopted the Roman ritual, but still perform their worship in the Syrian language; and, 3. Those who have fully conformed to the church of Rome, and use the Latin liturgy. The Syrian churches remain quite distinct from the Latin; they are superintended by bishops, and a regular establishment of clergy, but they are very poor.

The Portuguese are all Roman Catholics, and the missionaries of that faith have succeeded in spreading it into several inland districts, among a few native converts. The Catholic hierarchy, who now enjoy the protection of the British Government, are four apostolic vicars stationed at Pondicherry, Verapoly, Bombay, and Agra; with a prefect of the Roman mission in Nepaul. There are also two archbishops and two bishops appointed by the Crown of Portugal, namely, the archbishop of Goa, who is metropolitan and primate of the East, and the archbishop of Cranganore. The bishops are those of Cochin and of St. Thomas at Madras. The latter sends a legate to Calcutta, who has under his superintendence fourteen priests and ten churches. Although, however, the forms and ceremonies of the Romish church approximate very closely to those of the Hindoo worship, and though the most profound religious ignorance is alike compatible with both, there have been few converts to Romanism.

The Europeans are, of course, all professors of Christianity, and most of the British are Protestants of the English or Scottish Church. Since 1813 there has been a Lord Bishop of Calcutta appointed by the Crown; and since the last arrangement with the East India Company in 1833, two other bishops have been appointed, one at Madras, and the other at Bombay. Under their charge are three archdeacons, one at each presidency, with a numerous body of chaplains at the civil and military stations throughout the country, all of whom are paid by Government. There are also two chaplains of the Church of Scotland at each of the presidencies, likewise appointed by Government, and paid out of the public revenues.

During the last forty years strenuous efforts have been made to convert the Hindoos to Christianity, but the labours of the missionaries for a long time gave little promise of success. The Baptist missionaries, who had established themselves at Serampore, zealously set to work to translate the Bible into all the languages of India, in the hope that by this silent method the gospel might find its way into every corner of the land. Their labours, however, have not hitherto accomplished much; nor have the missionaries of the Roman Catholic Church been more successful. Indeed the failure of the latter has been so signal, as to draw from one of their number, the Abbe Du Bois, an expression of the utter hopelessness of success, and his belief that “these unhappy people (the Hindoos) are lying under an everlasting anathema.” “The Hindoos,” says Professor Wilson, “are an intelligent and inquisitive people, and not averse to controversy; but they will not contend in matters of speculation against authority. Their defence is reserve; and their obstinate adherence to their own opinions is proportioned to what they think an unfair method of refuting them.” Taught by experience, we may now venture to assert that those Christian sects only who are ready to give a reason for their faith, as well as for the authority which they claim for the Scriptures; and who combine the culture of the intellectual and moral faculties of the people with the preaching of the gospel, can hope for ultimate and complete success.

Besides the religious denominations already enumerated, there are professors of Islam or Mahometans, to the amount of about 15,000,000, who are spread over the

northern and central provinces; Armenian Christians in the great towns; and some Jews. The hill tribes, as the Bheels, Ramoossies, and Koolies, hold communion in religious matters with the Brahmins, only so far as concerns the civil institutions of marriage, naming of children, and such like. Several of the gods worshipped by the common people are unknown to the Hindoo mythology; and others are but incidentally connected with it. The Brahminical religion is exceedingly accommodating to other idolatrous systems; and, consequently, wherever the Brahmins find among other nations a god whom they deem worthy of reverence, they make him an avatar, or incarnation of one of their own deities who most resembles him in attributes. We must not, therefore, take it for granted, that every article of belief which, in more modern times, has attached itself to Hinduism, belongs to the ancient Brahminical creed. One of the most decided anti-brahminical forms of religion is that termed the worship of *Vetal*, in the more secluded parts of the Deccan, Concan, Canara, Gujrat, and Cutch; and which Dr. Wilson of Bombay considers to be not only repugnant to Brahminism, but of an earlier date in those parts of India. *Vetal*, however, is not the proper name of any individual god, but is merely a general term for a spirit or demon. *Vetal*, in the Deccan, has no image in the shape of any animal; he has no temple, but is worshipped in the open air, generally under the shade of a wide-spreading tree; the place is usually inclosed with a circle of stones; and the principal figure is a rough unhewn stone, of a pyramidal or triangular shape, placed on its base, and having one of its sides fronting the east. (*Jour. R. As. Soc.* V. 192, &c.)—There is also in the Deccan, a religious sect called Bauddha Vaishnavas or Vithal Bhaktas; they are found chiefly in the Mahratta country, but are also scattered over Gujrat, Central India, and the Carnatic, wherever Mahrattas have settled. Although the basis of their system is Brahminical, they may be considered as a kind of religious eclectics and reformers, borrowing doctrines from all sources, and appealing for support to reason rather than tradition. In their notions of deity, matter, and spirit, they appear to follow the Vedanta philosophy. In theory they admit of no distinction of castes, but in practice conform to the ordinary customs of the country.

The festivals celebrated by the Hindoos in honour of their gods are very numerous. Two of these, the one Mahometan and the other Hindoo, which are considered the principal solemnities, are common to the various sects, and take place annually. The European officers are expected by the natives to honour them with their presence; and all contribute towards the expense. The Mahometan festival is called the *Mohurrum*; which is strictly a fast of the most mournful kind; but is attended with such pomp, magnificence, and show, that it rather resembles a rejoicing. This is a dramatic representation of the deaths of Hossein and Hussein (see p. 124), and the marriage of the daughter of Hossein with her cousin. The latter event took place on the day of the battle of Kerbela; and on the seventh night of the Mohurrum the marriage is represented with great magnificence. The whole ceremony lasts ten days, and on that particularly devoted to the commemoration of the deaths of Hossein and Hussein, the Moslems wear mourning, clothing themselves in green garments. The Hindoo feast, which is called the *Dârga-pûjâ*, or *Dûsserah*, or *Dûsrah*, also lasts ten days, and takes place in September or October. It is celebrated in honour of the great goddess Durga or Kali; and all mercantile, judicial, and government business of every description is suspended for eight days. To a person unacquainted with the religion it appears only a scene of confusion. Men present themselves dressed up in the form of animals, and perform numerous antics; dancing-girls and music also form a chief part of the amusements. The entertainments, however, are various: consisting of recitations, sham-fights, and expert swordsmanship, in which the wonderful activity of the men, their quickness of eye, and rapid movement of limbs, astonish Europeans, who are always the welcome and honoured guests of the wealthy natives on this occasion. A brilliant display of fireworks closes the evening's entertainment; after which refreshments of coffee, sweetmeats, and fruit are presented to the visitors, before they retire. Sometimes the different castes countenance the festivals of each other, but more generally they are jealous of rivalry in splendour. The Brahmins are the principal performers in the dûsserah festival; they read portions of their sacred books, recite prayers and incantations, and perform a multitude of ceremonies. There is also a great festival, called the *Hooly*, celebrated in honour of Krishna, in the month Phulgoon (February, March), at the beginning of spring; the amusements of which consist in dancing, singing, and ludicrous exhibitions. It is observed by all classes throughout India, and may be termed the Saturnalia of the Hindoos; when all give way to licentious rioting and confusion.

India is infested by religious devotees, who prey on the community, and form a numerous class of sturdy beggars. They consist of both Hindoos and Mahometans; but the former are found in greater variety and excess. The *Sannyasis* are Brahmins who break off all ties, whether of affection or interest, which could bind them to society, make profession of mendicity, and subsist solely upon alms; and their initiation is accompanied by numerous ceremonies. They perform also numerous acts of penance and mortification; but, in general, these are mere amusements when compared with those which the *Iogis* or *Yogies* (another class of devotees) sometimes inflict upon themselves. The name *Iogi* properly signifies the followers of the Yoga or Pajantalah, a school of philosophers, who maintain the possibility of acquiring entire command over elementary matter by means of certain ascetic privations. But few, if any, of the *Yogies* are entitled to the dignified appellation of philosophers; most of them are only deluded fanatics; some keeping their hands closed till they are pierced through by the growth of the nails; others making vows to remain standing in a certain position for years, with their hands over their heads, till the arms become fixed and powerless. Some crawl like reptiles on the ground, or roll along in a ball like a hedgehog; others swing before a slow fire, or hang suspended for a time with their head downwards over the fiercest flames. In short, there is no limit to the varieties of torture which they practise. Another class are called *Gosains*, who all wear the distinguishing mark of Siva, a crescent on the forehead. Many of them, however, who have made a vow of celibacy, still follow secular professions, and distinguish themselves both in trade and in arms. The *Aghori* are a fraternity who infest almost every town in the upper provinces, and abound at all the holy places of the Jains. Their religious principles teach them to act in almost every respect contrary to the rules of caste, which they despise; and, going to the opposite extreme, they eat everything without scruple, even putrifying human carcases, which those who respect caste will not even approach. The *Fukirs*, *Fakeers*, or *Fukeers*, are a Mahometan fraternity, who profess to devote themselves entirely to religious duties, and to visit the holy places. These classes together are believed to amount to several millions; wherever there is a fair, a festival, or a sacrifice, they collect, attracted by the prospect of gain, which they have the faculty of scenting from afar. They perambulate the streets in a state of almost perfect nudity, generally besmeared with ashes, and bedaubed with paint. Their principal mode of getting a livelihood, is either by compelling the people to contribute to their wants, by making a clamorous demand at their doors, or by selling roots, drugs, and charms. Many of them, it is said, do not scruple to engage in crime. Among the priests of India, there is one particular class, who, in respect of their authority and rank, bear a strong resemblance to the clergy and episcopal hierarchy of the Christian church; these are the *Gurûs* or *Gooroos*, a sort of spiritual teachers. Each caste and sect has its particular *gurû*; but they are not all invested with the same degree of authority; there are among them gradations of rank, and subordination is strictly preserved. The inferior clergy or *gurûs* are very numerous, and derive their authority from the superior priests, who depose them at pleasure, and appoint others in their room. The high priests or superior *gurûs* are comparatively few. At stated periods these high functionaries make the circuit of their dioceses, inquire into the conduct of the inferior *gurûs*, and perform certain important rites at the temples. Such of them as make profession of superior sanctity greatly extend their pilgrimages, for the purpose of performing the *upaseyda* and other solemn ceremonies, at their colleges and in their sacred groves. The *gurûs* are mostly either Brahmins or Sudras.

GOVERNMENT.—In the native states, the Government is a pure despotism in its most naked and most oppressive form; the people and the land are alike the property of the rajah, the nabob, the sultan, or the padishah. The greater part of his revenues consists of the land rents, and these, with rare exceptions, he wastes in riot and debauchery. The instances of a good and enlightened prince, using his power and privileges for the welfare of his subjects, are rare indeed; and India everywhere retains the traces of the tyranny, the misrule, the anarchy, the quarrels, and the bloodshed which have been the pastime of her people and their rulers, from the commencement of her national existence. To this state of things the British ascendancy has so far put an end, that none of the native princes can, with the hope of impunity, follow the example of their predecessors, in measures of open violence. But their states are still left to the misrule of men destitute of the necessary qualifications of governors; and it will require a long continuance of peaceful habits, a complete regeneration, indeed, of Indian society, to root out the vices so intimately interwoven with the national character, as well of the rulers as of the ruled.

The education of the native princes not only unfits them for government, but is often conducted on this very principle by those who have the direction of it. From infancy the future rulers are taught to consider themselves the favourites of Heaven, to whose use and convenience all other created beings are subservient. Possessing no feeling beyond an exaggerated idea of their own greatness and power; incapacitated by early excesses, habitual indolence, and gross ignorance, from forming an opinion on any serious subject, they sink into an early grave; and they advance in succession through the same process, each ending his worthless life in the same manner. The affairs of the kingdom or state are left to the management of adventurers, whose sole aim is to secure a large portion of plunder to themselves, before they are succeeded by others, destined to act in the same manner and on the same principle. In the native governments, however, there is hardly any greater source of evil than the female supremacy which has existed in the country—a system of female government uncongenial with Asiatic institutions, but which the British rulers have unfortunately managed everywhere to foster, instead of putting it down. A prince dies; his widow is allowed to adopt an heir; she adopts the youngest she can find, that her own reign may be as long as possible; and when the heir grows up she tries to dispose of him, that she may adopt another infant. In order to acquire the sceptre, these ladies have been suspected of destroying their husbands, and, in order to retain it, of disposing of their adopted children, or even of their sons. Secluded, as all women of rank are in India, they have no opportunity of learning the character or capacity of the men they entrust with the conduct of affairs; but they are generally found to consider such points as of little importance, and to select either their own paramours, or those of some favourite attendant, commonly making them paramours after they are chosen, if not before. Under such a system the people are governed by a set of miscreants whom they detest and despise, and who, knowing that they are detested and despised, set no bounds to their rapacity.

The superintendence, direction, and control of the whole civil and military government of the British territories and revenues in India, is vested in a Governor-General and Councillors, styled, “the Governor-General of India in Council.” The Council is composed of four ordinary members, three of whom are chosen from the East India Company’s servants; and, when there is a separate Commander-in-Chief, that officer is an extraordinary member, taking rank and precedence next after the Governor-General. The Governor-General in Council are empowered to *legislate* in every matter touching the government of India, and may assemble and meet in any place; but, when their meeting is held within the territory of Bombay or Madras, the Governor of that presidency is for the time an extraordinary member. The *Executive* Government of Bengal was intended to be vested in the Governor-General, and those three of his councillors who are Company’s servants; but, by virtue of a new interpretation of the act of Parliament, the Government of Bengal has been transferred from the Governor-General in Council to the Governor-General himself, in his new capacity of Governor of Bengal. The Government of Agra is administered by a Lieutenant-Governor, or by the Governor-General himself, when he resides within its limits. In each of the other presidencies the Executive Government is likewise vested in a Governor and two Councillors; but these have no power to make laws or to grant money, and are subject in all respects to the orders of the Governor-General in Council, who in their turn are subject to the orders of the Court of Directors of the East India Company, acting under the superintendence of the Board of Control for the affairs of India, and ultimately responsible to the British Parliament. Misgovernment is thus guarded against with as much care and effect as the great distance between Britain and India will admit.

The capitals of the three presidencies are subject to the laws of England, and justice is administered within their limits by Supreme Courts, the judges of which are appointed by the Crown. But, within the rest of the territory, justice is administered according to Hindoo or Mahometan law, by courts of various degrees of authority, under European and native judges, from whose decisions appeals lie to the *Sudder-Dewanny* and *Nizamutadawlet*, or supreme courts of civil and criminal law, attached to each presidency, and ultimately to the Queen in Council. A new digest or code of laws for these courts has recently been prepared and promulgated by Government.

For administrative purposes the whole of the settled territory is divided into shires or provinces, called *zillahs*, *circars*, or *collectorates*, each of which is placed under the charge of a government officer, and has its peculiar courts; but the newly acquired territories are generally entrusted for a time to commissioners, who are vested

with the whole powers of government, civil, military, and financial, subject of course to the orders of the Government of the presidency to which they belong. Under the former Mogul governments, a certain number of villages formed a *pergunnah*; a certain number of *pergunnahs*, comprehending a tract of country equal to a moderately-sized English county, formed a *chuckla*; of these a certain number formed a *circar*; and several *circars* formed a *soubah* or province, to each of which was assigned a *soubahdar* or governor, who exercised the whole functions of government, civil, military, and financial. Through the various changes of rulers which India has undergone, the Hindoos, in all the settled parts of the country, have uniformly been divided into small communities, or townships, where not only the public services, but also the handicrafts, with the exception of mere agricultural labour, have been performed by persons who hold them by hereditary succession, and who are paid by certain portions of land, or by fixed presents. The principal of these is the *potail* or headman, under whom are the officers and servants of police; an officer, whose business it is to be acquainted with all the local rights and boundaries, and to settle all disputes respecting land; the superintendent of watercourses; the brahmin; the astrologer; the schoolmaster; the village register; the smith; the carpenter; the poet; the barber; the musician; and the dancing girl; and in levying revenues or demanding services of any kind, it has always been found the most expedient method to apply to the heads of the village, and delegate to them the task of collecting and apportioning it. In some provinces, however, the collection of the revenues had been entrusted to certain officers, called *zemindars*, &c., who, acquiring by degrees an hereditary tenure of office, and being merely obliged to pay a certain fixed rent, came in time to be viewed as proprietors, burdened only with a land-tax, and as such they were dealt with by Lord Cornwallis in his settlement of the land-revenues of Bengal. Being entrusted at the same time, to a great extent, with the administration of justice and police, they became in a certain degree the feudal lords of the district. Under them were the immediate cultivators of the soil, the *ryots*, who, either by original right, or long established usage, retained their land, so long as the rent was paid, in undisturbed possession from father to son.

FINANCES.—The revenues of all Asiatic states are drawn principally from the land, the whole of which is regarded as the property of the sovereign. To this general rule the British Indian Government forms no exception; for the greater proportion of their territorial revenue consists of the land rents, collected in some provinces through the instrumentality of *zemindars*, whom, as we have stated, the Government have constituted hereditary proprietors of the land, though they were formerly only collectors; and in others, derived directly from the *ryots* or cultivators, by the officers of Government, according to permanent or temporary arrangements, as the case may be. The rest of the revenue consists of the profits of the monopoly of salt, opium, and tobacco; and of taxes on imported merchandise, stamps, licences, postages, and various other imposts. The average annual revenue for the ten years 1829–39, amounted to £15,930,000; and the average annual expenditure for the same period, including interest on debt, but exclusive of the charge of collection, amounted to £14,632,000. Of the finances of the native princes no account can be given.

ARMY and NAVY.—Each presidency has its separate army, commander-in-chief, staff, &c.; but the Commander-in-chief of the supreme Government possesses a general authority over all the presidencies. The total armed force in British India is about 194,000 men, which may be said to consist of three branches, namely, Queen's cavalry and infantry; the East India Company's European engineers, artillery, and infantry; and the Company's native artillery, cavalry, and infantry. The last branch has two sets of commissioned officers, the one European and the other native, the latter consisting of *soubahdars*, *jemadars*, and *havildars*, or captains, lieutenants, and ensigns, who, though holding nominally the same rank as the corresponding European officers, are nevertheless all subordinate to the lowest European commissioned officer. The total number of European troops in India, besides commissioned officers, is usually about 30,000, of whom two-thirds are Queen's regiments, the remainder consisting of persons enlisted in Britain directly for the East India Company's service. The native troops are composed of Hindoos and Moslems, &c. who are mixed in every regiment; they are usually called *Seapoys*, *Sepoys*, or *Sipahs*, and in discipline, cleanliness, sobriety, bravery, and fidelity, are not surpassed by any body of men. The native artillery make it a point of honour never to desert their guns, and wherever a British officer has been found to lead, it has rarely or never happened that the *seapoys* refused to follow. The native cavalry are excellent and

fearless riders, superior in that respect even to Europeans, and good swordsmen; they are exceedingly fond of their horses, and treat them with the greatest kindness. Of the whole army it may be said that no men are more alive to emulation; a medal is as highly prized by a seapoy as by a British soldier; and many instances of their heroism have been related which would do honour to Greek or Roman story. The Bengal army is considered to possess the men of the highest caste, most of them being Brahmins and Rajpoots; the Bombay seapoy is more a man of all work; and the Madrasites are perhaps the hardiest race; but all are extremely tenacious of their rights, and adhere punctiliously to the customs which their religion ordains.—(*Martin's Statistics*, &c. p. 325.) The prejudices, indeed, of the Bengal troops on many points are often difficult to be overcome, partly in consequence of the great number of Brahmins among them, and partly, because they consider themselves collectively as of a higher caste than the Madras seapoys, whose prejudices are comparatively trivial. The appearance of the Bengal sepoy is in general better than that of the Madras soldier; the Bengalee has generally greater height, though he does not usually possess muscle in proportion. The Madras seapoy is of shorter stature, but has more strength and power of enduring fatigue and privation. The troops of Bengal and Bombay lately gave a noble proof of devotion to their duties, by passing the forbidden limits of the Indus, in their way to Affghanistan, not only without a murmur, but with high spirit. In 1837, two orders of distinction were instituted, the first, styled "The Order of British India," is to be given to soubahdars and jemadars, for long and honourable service; and to consist of two classes. The first class is to consist of 100 soubahdars, with an allowance of two rupees a-day each, in addition to their regimental allowances, or retiring pensions; and the second class, of 100 officers, with an allowance of one rupee a-day each, in addition to their pay and pensions. Members of the first class receive the title of Surdar-bahadur (invincible commander); those of the second, Bahadur (invincible.) The other order, styled "The Order of Merit," is to furnish rewards for personal bravery, and to consist of three classes, with an appropriate badge, and additional pay and pensions, without distinction of rank.

Besides the regular British army, several of the native princes are obliged by treaty to maintain subsidiary troops, who in fact form a guard over the conduct of those who pay them; and, in the event of war, they are required to furnish contingents for service in the field. Formerly, the Indian troops were little better than an undisciplined rabble, called out for the special purposes of the war in which their ruler happened to be engaged; or consisted of mercenary soldiers, who sold their services to the highest bidder, and who changed from one employer to another, just as it suited their interest or caprice. Latterly, several of the princes have attempted to form and maintain regular armies, disciplined in the European manner; but, from imperfect training, the want of proper officers, or general mismanagement, these armies, when brought into collision with the British troops, have proved hardly more efficient than their undisciplined predecessors. But the fighting men form the smallest part of an Indian army; the attendants, servants, and camp followers are innumerable. Each of the British seapoys has his personal servants at all times; but, when the army takes the field, the number of attendants is prodigiously increased. When General Harris advanced against Seringapatam, in 1799, his army consisted of 35,000 soldiers and 120,000 attendants; and when the Marquis of Hastings, in 1817, commenced the Mahratta war, his fighting force amounted to 110,000 men, his camp followers, to half a million.

The navy of the British Indian empire was at one time very considerable, but is now much diminished; it consists only of a few vessels of war of the smaller classes, several armed steamers, and some surveying vessels. The navy is attached to the Bombay presidency; and measures are now in progress to convert it into an armed steam flotilla. At Calcutta, there is a marine establishment, which, though not of a warlike character, is nevertheless of the utmost importance. It is the pilot service, which consists of 12 strong, well fitted, and quick-sailing vessels, of 200 tons burden, several of which are always stationed off the mouths of the Ganges and the Hoogly, on the look-out for vessels coming up the bay, into each of which they place a European pilot, and a leadsman to steer the course to Calcutta. There are 120 Europeans employed in this service; the first rank being that of branch pilots, who are 12 in number, and receive each £70 a-month. The yearly cost of the pilot service, including pilots, men, vessels, lighthouses, buoys, and other necessary adjuncts, exceeds £150,000 a-year.

PRODUCTIVE INDUSTRY.—Agriculture throughout India is in the lowest condition; the implements used are of the rudest kind, and the cultivator follows the routine of

his forefathers, without ever dreaming of improvement. For the articles of produce, see *Vegetable Productions and Topography*.

The great fertility of the soil generally insures a sufficient supply of food; but so dependent is vegetation, in this hot climate, upon the supply of moisture, that an unusual continuance of dry weather sometimes occasions dreadful famines. Tanks or artificial ponds, and wells, are spread in countless numbers over every tract of cultivated country; and the former, being often of great extent, and maintained by strong dams, present an interesting proof of the power of human skill and industry in averting an evil so incident to the climate, and supplying to the thirsty soil that moisture of which it is deprived by the long droughts of a tropical region. Without these innumerable wells and reservoirs, which have been created by the labour of successive generations, great part of India would speedily become an uncultivated desert. European skill and capital are now, to a large extent, applied to the production of indigo and opium, principally in Bahar and Malwah; and tea is cultivated in Upper Assam, where it is already grown of good quality, and may be raised almost to any extent which the market may require. The cultivation of the indigo plant occupies above a million of acres, yielding an annual produce of the value of two or three millions sterling. Silk is the next important article: the average quantity of raw silk exported during each of the twelve years ending 1831, amounted to 1,334,883 lbs.; and in 1837, the value of silk exported exceeded £120,000. There are in India three species of mulberry-tree, and two kinds of silk worm; the silk districts, which are in Bengal, are all situated between the parallels of 22° and 26° N. and long. 86° and 90° E. Opium is produced in Malwah and Bahar; and in 1836 was exported, for the purpose of being smuggled into China, to the enormous extent of 26,018 chests, valued at 17,106,903 dollars. The working of mines is scarcely worth mentioning; diamonds are procured near Punnah, in Bundelcund; coal is wrought in the district of Burdwan, in Bengal, and in other places; and iron in the Carnatic, where excellent steel is manufactured at Porto-Novo. For many ages India was famous for the weaving of silk, cotton, and goats-wool, particularly for muslins and calicoes; but since the opening of the trade in 1813, the introduction of British manufactured goods has almost entirely ruined the Hindoo manufacturers, without supplying a substitute for their employment. In woollen textures, iron work, and earthenware, there are few nations more rude or less successful. Notwithstanding the vast demand in Europe for the staple productions of India, and the unlimited capability of the country to furnish them, the native products have hitherto been exported only to a comparatively small extent. The commerce, however, both in exports and imports, has increased immensely since the trade was opened in 1813. According to the last published parliamentary returns, the value of the imports into the presidency of Bengal in the year 1836-7 amounted to 40,429,076 Company's rupees; into Madras, 15,125,857; into Bombay, 47,245,571; total, 102,800,504 rupees, or £11,565,056 sterling. The value of the exports for the same year amounted, in Bengal, to 67,847,147; Madras, 27,854,757; Bombay, 59,905,978; total, 155,607,882 rupees, or £17,954,161 sterling. The maritime trade centres in Calcutta, Bombay, and Madras; but the people of Mandivee, in Cutch, likewise carry on a great trade; and from Curachee, in Sinde, caravans of camels convey large quantities of goods towards Cabul, Candahar, and other places to the north-west of India; bringing back in return the produce of these countries for exportation. Upwards of 1000 Arabian ships also arrive annually in India between the monsoons; by which an extensive commerce is maintained in a quiet imperceptible manner, through the means of obscure native agents, who freight the Arab boats; and thus many thousand tons of British manufactured goods are bought from our merchants, and find their way into the heart of the most remote and most barbarous countries. But besides the commerce with Europe, a considerable trade is carried on with the Persian Gulf and Arabia; and with China and the Asiatic Islands the trade is also great. A large quantity of wool is now exported from Bombay, the produce of the sheep pastured along the Indus and other districts beyond the British frontier. The first exports reported, were in 1833, when the amount was only 69,994 lbs.; in 1837 it had increased to 2,444,691 lbs. The general peace, also, and the increased safety of communication which now exists throughout all India in consequence of the British ascendancy, are fast producing their natural results, in a rapidly increasing internal commerce. Inland customs are also now abolished, and traders may carry their goods from one extremity of the country to the other, without being pillaged at every step, as formerly, by custom-house officers. For the encouragement of this trade, two banks have been established in Calcutta; one at Agra, which divided, in 1839, nine

per cent. of profits ; and one at Bombay. The available capital of these banks is less than £2,000,000 sterling ; they have little or no intercourse with England ; and their business is chiefly confined to the limited population of the presidencies. The great mass of the people are dependent on the shroffs or money-lenders for pecuniary assistance, at the rate of two per cent. a-month, or on the Government for small advances to carry on their agricultural operations from seed time till harvest. The monetary circulation consists of the rupee, a silver coin of no more than two shillings value, with copper and shells. To remedy these inconveniencies, a great establishment, called the Bank of Asia, with branches in India, has lately been established in London.

INTERNAL COMMUNICATIONS.—The roads throughout India are generally mere tracks, scarcely suited for the transport of wheel-carriages ; and the modes of travelling are of a nature which an European, accustomed to travelling in Britain, would hardly feel very comfortable. Such conveniencies as stage-coaches, public waggons, and boats, do not exist. There are not even any conveyances which can be hired from stage to stage, except in a very few parts of the country, where a traveller may for a short distance be supplied at certain intervals with ponies which go at the rate of three miles an hour ; while he is obliged to hire porters to carry his baggage. The only attempt at travelling post is by going in a palkee (palanquin), which is carried by bearers ; and this is a mode of conveyance available only to the rich. A palkee holds but one person, and the charge is never less than one, sometimes two shillings a mile, a rate as high as posting in England. The traveller is obliged to give from two to five day's notice to the postmaster, according to the distance ; and the average rate of travelling is about four miles an hour. In ordinary cases the traveller carries everything with him ; if he is a rich man, accompanied by his family, his retinue resembles that of the patriarchs of old, including his flocks and herds, his camels, and his beasts of burden, his men-servants, and his maid-servants ; he travels on his own horses, or on an elephant, while his tents, beds, cooking vessels, &c. are conveyed on camels or in carts. Some of his attendants accompany him on horseback, or on ponies ; and the rest follow on foot at the rate of ten or twelve miles a-day. If he travel by water, he hires a comfortable boat for himself and his family, with as many more as he requires for his kitchen and baggage, and embarks with all his retinue. Individuals of less wealth convey their property in carts, and are content to sleep and eat under the shelter of trees, or of one of those magnificent groves of mango which are found at intervals of a few miles in many parts of the country. According to the rank or wealth of the individual his mode of travelling and the number of his attendants varies ; some have only a pony to carry their baggage, while they walk on foot ; and the poorest not only walk, but carry their own stores, consisting of a blanket or quilt for a bed, a pot of brass or copper tinned in which to boil their pulse or make a curry, a smaller vessel for drinking, and a round plate of sheet iron, on which, supported on two stones or lumps of earth, and with a few sticks or a little cow-dung for fuel, they bake their cakes of unleavened bread, which consist merely of flour and water, kneaded for a few minutes. Merchants, who have goods to dispatch, hire boats, or carts, camels, pack-horses, or bullocks to convey their wares to their destination ; and the same conveyances and the same drivers proceed throughout the whole distance, though it may be 500 or 1000 miles. Large sums of treasure or jewellery, amounting sometimes to several thousand pounds, are constantly dispatched by the bankers of one town to their correspondents at the distance of several hundred miles, by the hands of common porters. These men, instead of going in large parties well armed, usually travel in small numbers, without arms ; trusting for protection to the extreme poverty of their appearance. There are but few inns or serais ; and the best of them consist but of a square of arches or arcades. Some of these, which were raised under the Mahometan princes, are beautiful specimens of architecture, with lofty gateways and battlements ; but the greater part of them are rude and shapeless. Under the native princes, these buildings were numerous, and were kept in tolerable order ; a regular establishment of guards and servants was maintained at them ; and there were private doors and apartments furnished for women. But all have suffered more or less from the political disturbances of the country, and many of the most splendid have gone entirely to ruin. There are generally a few shops within the square ; and, in places of considerable thoroughfare, a few people, of a class called Buttearas, who cook dinners for travellers. Where there are no serais, travellers sleep in the verandahs of houses, or in any open sheds they can find ; but the climate of India is such as to render shelter unnecessary during nine months

in the year; and none but single travellers, or very small parties, care for serais or houses. All who are rich enough to carry tents with them, or those who travel in considerable numbers, usually prefer encamping under the shade of trees, at some distance from the dirty serais or villages; and when one party is so encamped under a shady grove, a single traveller, or even a party of several, will easily be induced to join them, and often ask permission to do so, for the sake of protection.

But several good roads have been recently formed or projected, particularly one from Calcutta to Cuttack; and a great road, which is to extend from Agra to Bombay, through Allyghur, Sasseram, and Jihree, crossing the Nerbuddah at Akberpore, a total distance of 750 miles, has been surveyed, and partly executed. There are no navigable canals or railways; but the Indus and the Ganges both afford a long course of inland navigation, which is traversed by steam-boats; and a canal has been projected to connect these rivers, proceeding across the country between the Jumnah and the Suttlej; and its tract has already been surveyed and found practicable. — See RIVERS—*Indus, Ganges, &c.*

DIVISIONS. — As India has never formed one empire, there is no general system of administrative divisions. By the Mahometan writers, the name *Hindūstan* was understood to signify the country in immediate subjection to the sovereigns of Delhi which, in 1582, was divided into eleven *soubahs* or provinces, the names of which are still retained in our maps, though most of them have become entirely obsolete, and those which still remain, have materially changed the extent of their application. These were: — *Lahore, Moultan*, including *Sinde, Ajmere, Delhi, Agra, Allahabad, Bahar, Oude, Bengal, Malwah, and Gujrat*. A twelfth soubah was formed of *Cool*, and the country to the west of the Indus; and several new divisions were afterwards added from the conquests in the Deccan, namely, *Berar, Khandeish, Aurangabad, Beejapore, Beder, Nandere, Hydrabad*, the *Carnatic, Gundwana, and Orissa*. Of all these, the only soubahs whose names remain geographical appellations are, *Bahar, Oude, Bengal, Orissa, Malwah, Gujrat, Khandeish*, and the *Carnatic*. Bengal is the great plain at the mouths of the Ganges and Brahmapûtra; *Bahar* is a smaller province to the north-west; *Oude* is the name of one of the existing political divisions; *Malwah*, or *Central India*, is the table-land, supported on the south by the Adhya mountains; *Gujrat* is the country around the Gulf of Cambay; *Khandeish* is a province of the Bombay presidency, in the lower part of the Tuptee; the *Carnatic* is the south-eastern portion of the peninsula of India; *Orissa* extends along the coast, between the Carnatic and Bengal, with a breadth of about ninety miles inland, where it borders upon *Gundwana*, a large tract of country, with ill-defined limits, but understood, in its widest dimensions, to extend westward and northward to Ellichpoor, Bhopal, and Bundelcund.

India is now divided politically into a number of sovereign states, which may be arranged into four classes: — 1. Territories under the immediate government of the officers of the East India Company, which are divided into the three Presidencies of *Bengal, Madras, and Bombay*; 2. Subject States, left to the rule of the native princes, but under the protection and complete controul of the British Government; 3. States under British protection or alliance, but without interference in their internal governments. These do not in reality differ much from the Subject States, and we have therefore, in the subjoined table, united them in the same class; 4. Independent States. The names of all of these, with their dimensions and population, are stated in the following Table: —

I. BRITISH TERRITORY.

	Area in sq. miles.	Popula- tion.
Presidency of Fort-William, Bengal.		
1. Government of Bengal, Bahar, and Orissa, including Assam and Arracan.	181,684	40,550,000
2. Government of Agra, or the north-west Provinces.	170,210	17,021,000
Presidency of Fort St. George, Madras.	121,982	15,090,000
Presidency of Bombay.	62,542	6,940,277
	536,418	79,101,311

II. and III. SUBJECT AND PROTECTED STATES.

Nizam, or King of Hydrabad.	88,884	10,000,000
Rajah of Berar, or King of Nagpore.	56,723	3,000,000
Rajah of Sattarah.	7,943	794,300
Rajah of Kolahore.	3,181	318,400
Rajah of Sawantwaree.	935	93,500
Rajah of Travancore.	4,574	457,400

Carry over, . . . 698,661 90,764,911

		<i>Area in sq. miles.</i>	<i>Popula- tion.</i>
	Brought over,	698,661	90,764,911
Rajah of Cochin,		1,988	198,800
Rajah of Mysore (now annexed to Madras),		27,959	2,799,900
Rajah of Sikim,		4,400	440,000
Padishah, or King of Oude,		23,923	6,000,000
Rajah of Rewah, in Bundelcund,		10,310	1,031,000
Chiefs of Dhattea, Jhansi, and Terhi, in do.,		16,173	1,617,300
Rajah of Bhurtpore,		1,946	194,600
The Rajah of Dholpore, Baree, and Rajah-Kairah,		1,626	162,600
Nawab or Nabob of Bhopal, in Malwah,		6,772	677,200
Holkar's territory in Malwah,		4,245	424,500
The Rajahs of Dhar and Dewas, in Malwah,		1,466	146,600
The Guicowar, or King of Baroda,		24,950	2,495,000
The Rao of Cutch or Kach'h,		7,396	350,000
The Rajpoot and other Princes in Rajpootana and Malwah.			
Mewar or Oudipore,	11,784	1,178,400	
Jeypoor,	13,427	1,342,700	
Marwar or Joudpour,	31,132	1,706,100	
Kotah,	4,389	438,900	
Bhondi,	2,291	229,100	
Alwar,	3,235	323,500	
Bikaneer,	18,060	180,600	
Jeysulmere,	9,779	97,790	
Kishenghur,	724	72,400	
Banswarra,	1,410	144,000	
Pertaubghur,	1,457	145,700	
Dungarpoor,	2,005	200,500	
Keroli,	1,878	187,800	
Sirohi or Sirowy,	3,024	302,400	
Ameer Khan, lord of Tonk, Seronj, and Nimbheera,	1,633	163,300	
		109,458	6,713,190
Rajahs of Patiala, Keytal, Naba, Jeend, and others, between the Jumnah and the Sutlej,		16,602	500,000
Bhawul-Khan, Chief of the Daoudpûtras,		30,000	350,000
Ameers of Sinde,		60,000	201,000

IV. INDEPENDENT STATES.

The Maharajah Seindia in Central India,	32,944	3,294,400
The Punjab, or Kingdom of Lahore,	160,000	4,000,000
The Kingdom of Nepal or Nepaul,	36,000	2,000,000
Bootan, or the country of Deb-Rajah,	20,000	1,000,000

V. FOREIGN POSSESSIONS.

French territory,	530	210,000
Danish territory,	93	35,000
Portuguese territory,	1,200	500,000

Total area and population of India,	1,298,452	130,905,000
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A large portion of the British territory consists of the possessions of princes, who, though deprived of the government, still enjoy pensions paid out of the public revenues. The territories of some of these princes were ceded in return for military protection; others were forfeited by the chances of war; and those of a third class were taken from them, on account of their tyranny or incapacity. The princes of the first and the last classes, are formally installed on their thrones, and allowed to exercise sovereignty over the tenants of their private estates, and the members of their household; are exempted from the jurisdiction of the British courts of law, have their own civil and military functionaries, with all the ensigns of state, and a British envoy usually resident at their court. The following list contains their names and the amount of their stipends:—

	<i>Stip. Rupees.</i>
The Great Mogul, Emperor of Delhi, and Family,	1,500,000
Soubahdar of the Carnatic, or Nabob of Arcot,	1,165,400
Families of former Soubahdars,	900,000
Rajah of Tanjore,	1,183,500
Soubahdar of Bengal, Bahar, and Orissa,	1,600,000
Families of former Soubahdars,	900,000
Rajah of Benares,	143,000
Families of Hyder Ali, and Tippoo, Sultans of Mysore,	639,549
Rajahs of Malabar,	250,000
Peishwah of the Mahrattas, and Family,	2,150,000
Descendants of Himmüt Bahadur,	60,000
Benaek Rao, and Seeta Bae, Chiefs of Saugor,	250,000
Gowind, Rao of Calpie,	100,000
Nawab of Masulipatam,	50,000
Nawab of Surat,	162,675
Nawab of Furruckabad,	108,000

TOPOGRAPHY.—We shall now proceed to describe the different provinces of India, in the following order:—1. *Government of Bengal*; 2. *Government of Agra*; 3. *Presidency of Madras*; 4. *Presidency of Bombay*; 5. *Subject and Protected States*; 6. *Independent States*; 7. *Foreign Possessions*; and 8. *The Islands*.

§ 1. *Government of Bengal, Bahar, and Orissa.*

This is the original territory granted in dewanny or stewardship by the Emperor of Delhi to the East India Company in 1765. It is situate at the head of the Bay of Bengal, and consists chiefly of the alluvial plains formed and intersected by the Ganges and the Brahmapûtra, with their innumerable branches. The government extends 380 miles in breadth, N.S. in the meridian of Calcutta, and about

520 in length E.W. along the 25° N. lat., comprising an area of 217,000 square miles. *Bengal* is a very flat country, with scarcely a hill of any considerable elevation, and is so intersected by rivers, that even in the driest season there are few points which are 20 miles from a navigable stream. The lower portion of the country, adjoining the sea, is a dreary tract of islands called the *Sunderbunds*, formed by the branches of the Ganges, covered with jungle, and infested with tigers, alligators, and other wild animals. The ground of Bengal consists entirely of alluvial or travelled matter, which extends to a very great depth. A bore made at Fort-William in 1840 reached not less than 481 feet, without rock, which was not found even there, the lowest stratum which was reached consisting of fine sand, like that of the sea shore, largely mixed with shingle. The cultivable soil, however, is very thin, and is composed of saltish mud and sand; but it, nevertheless, produces abundantly all the necessities, and many of the luxuries of life. Rice, the principal food of the natives, is grown in the low grounds; and wheat and barley in the higher districts. The most fertile and the best cultivated portion is the district of Burdwan, which has the appearance of a garden in the midst of a wilderness. Salt, tobacco, sugar, indigo, cotton, silk, and opium, are also produced, and the cultivation of the potatoe is rapidly extending. The climate is very damp; during half the year it rains incessantly, and during the other half the dews are heavy and penetrating. The rainy season lasts from June till October; the cold season from November till February, when the hot season begins, and continues till the middle of June. During the cold season the atmosphere is clear, sharp, and bracing; but the hot season, in the lower parts of the province, is nearly intolerable, even to a native. The rays of the sun seem to penetrate to the very vitals, while there is not a cloud in the sky to intercept them. When the monsoon is about to change, the very atmosphere feels as if it were thick, breathing becomes laborious, and all animated nature languishes, the oppressiveness of the night being almost as great as that of the day. In the north, however, where the country begins to rise, and where the land is cleared, the climate is said to be very fine. A narrow portion of Bengal extends to the south-east along the coast for 120 miles, forming the district of Chittagong, an unproductive hilly region, which is much resorted to by Europeans for sea air and bathing. *Bahar* lies north-west of Bengal, and contains about 55,000 square miles, of which nearly one-half is plain arable ground; about a seventh consists of a straggling hilly country, producing little; and the remainder, about a third, is a highland region of inconsiderable value. It is divided by the Ganges into two nearly equal portions. The climate is comparatively temperate; the heat and the moisture are less oppressive, and the cool season continues longer than in Bengal. The soil of the plains is generally fertile, unless where saltpetre exists in excess, and being well watered and cultivated, is very productive of the dryer grains, and of the luxuries required by the more active inhabitants of the north. Opium is the staple produce; and a great quantity of saltpetre is manufactured, principally in the divisions of Hajeepore and Sarun. The part of *Orissa* originally included in the Emperor's grant, is only a narrow tract stretching along the south-western frontier of Bengal.

The government of Bengal, Bahar, and Orissa is divided into four provinces and thirty districts or zillahs. CALCUTTA PROVINCE contains the *City of Calcutta*, the *suburbs*, the *24 pargannahs*, and the zillahs of *Hoojly*, *Nuddea*, *Jessore*, *Cuttack*, *Midnapore*, *Burdwan*, and *Jungle-nichals*. The PROVINCE of PATNA contains the districts of *Ramghur*, *Behar*, *Tirhoot*, *Sarun*, *Shahabad*, and *Patna*. The PROVINCE of MOORSHEDABAD contains the districts of *Bhaugulpore*, *Purneah*, *Dinagpore*, *Rungpore*, *Rajeshahys*, *Birbhoom*, and *Moorshedabad*. The PROVINCE of Dacca contains the districts of *Mymensing*, *Sylhet*, *Tipperah*, *Chittagong*, *Backergunge*, *Dacca*, and *Dacca-Jelapore*. The cities and towns of Bengal have been arranged in the following table, which shows also their distances and bearings from Calcutta.

Azmerigunge, 220 N.E. by E.	Darra, . . . 172 N.W. by N.	Moorshedabad, 120 N.
Backergunge, 122 E.	Diamond Har-	Nabobgunge, 140 N.
Barraekpore, 10 N.	hour, . . . 31 S.	Naragur, . . . 75 W.S.W.
Bauleah, . . . 125 N. by E.	Dinagpore, . . . 210 N.	Nagore, . . . 120 N.W.
Beluehly, . . . 145 N.E. by N.	Dumroy, . . . 145 N.E. by E.	Natore, . . . 132 N. by E.
Bernagur, . . . 115 N. by W.	English Bazaar, 165 N.N.W. by N.	Nuddeah, . . . 56 N.
Beyhar, . . . 266 N. by E.	Fringy Bazaar, 150 E.N.E.	Nuldingah, . . . 75 N.E. by N.
Bijnee, . . . 310 N.E. by N.	Fulta, . . . 25 S.W.	Nulshi, . . . 152 N.E.
Bissunpore, . . . 80 N.W. by W.	Goragot, . . . 192 N. by E.	Nunklow, . . . 300 N.E.
Bosnah, . . . 109 N.E. by E.	Gour, . . . 160 N.N.W. by N.	Oleapour, . . . 226 N.N.E.
Buddaul, . . . 175 N. by E.	Guzzotta, . . . 242 N. by E.	Pachete, . . . 140 N.W.
Budgebudge, . . . 13 S.W.	Harriepore, . . . 125 W.S.W.	Piplee or Pipley, 56 S.W.
Burhan, . . . 60 N.N.W.	Hurryal, . . . 132 N.E. by N.	Plassey, . . . 83 N. by W.
Burdhanpore, . . . 103 N. by W.	Imlos, . . . 64 N.W.	Pubna, . . . 112 N.E. by N.
Bygonbarry, . . . 195 N.E.	Injeelee, . . . 60 S.S.W.	Puculoe, . . . 148 N.E.
Chandernagore, 20 N.	Islamabad, . . . 20 E. by S.	Purneah, . . . 230 N.N.W.
Chandpore, . . . 114 E. by N.	Jellassore, . . . 95 S.W.	Ragonatpore, 125 N.W. by W.
Chinary, . . . 216 N.N.E.	Jellinghy, . . . 105 N. by E.	Rajanagar, . . . 132 E. by N.
Chinsura, . . . 22 N.	Jemidiah, . . . 80 N.E. by N.	Rajmahal, . . . 172 N.N.W. by N.
Chirra-punjee, 280 N.E.	Junglebarry, . . . 202 N.E. by E.	Rangamatty, . . . 270 N.N.E.
Chittagong, . . . 229 E. by S.	Jyntiahpore, . . . 288 N.E. by E.	Rungpore, . . . 235 N. by E.
Colinda, . . . 180 E.	Kedzerce, . . . 55 S.W. by S.	Rynabad, . . . 84 E.
Comercally, . . . 101 N.E. by N.	Kishenagur, . . . 57 N. by E.	Saibunge, . . . 260 N. by E.
Comillah, . . . 186 E. by N.	Luckipore, . . . 156 E. by N.	Serpore, . . . 158 N.N.E.
Cossimbazar, 105 N. by W.	Mahmudpour, . . . 95 N.E. by E.	Serampore, . . . 10 N.
Culna, . . . 45 N. by W.	Mauldah, . . . 170 N.N.W. by N.	Shanashygotia, 275 N.
Culpee, . . . 36 S.S.W.	Maundee, . . . 120 W.N.W.	Silhet, . . . 270 N.E. by E.
Cutwa, . . . 73 N.N.W. by N.	Midnapore, . . . 73 W. by S.	Sutalury, . . . 114 E.
Dacca, . . . 150 N.E. by E.	Moorley, . . . 64 N.E. by E.	Tanjepour, . . . 225 N.N.W. by N.

CALCUTTA, the capital of Bengal and of all India, is situated on the left bank of the Hoogly river, 100 miles from the sea, and 130 from the Sandheads, in 22° 33' N. lat. and 88° 28' E. long. The city and suburbs extend along the river more than six miles, but the breadth is various. The European residences are built in the Grecian style, generally detached, and are situated in the southern part of the city, which is called Chowringhee, or in the suburbs. The natives reside in the "Black Town," a congeries of narrow and dirty streets, most of which are lined with mud hovels, but contain also some large houses of the rich Baboos. Fort-William stands on the river side, separated from the city on the north and east by a wide esplanade, which also extends along the south side, where it forms the race-course. The fort is an irregular octagon, strongly fortified. It has cost the Company £2,000,000 sterling, and would require a garrison of from 10,000 to 15,000 to man the works. The interior is truly beautiful, consisting of large grass plots surrounded by shady trees, and intersected with gravel walks, with here and there piles of balls, bombs, and parks of artillery. The barracks are large enough for 20,000 men. For a quarter of a mile round the outside no tree or house is permitted, and ships pass so close that they may be hailed from the glacis; but the country being perfectly flat, and the ramparts rising only a few feet above it, the fort does not make a very imposing appearance; indeed its strength is scarcely perceptible. The only other building deserving of special notice is the palace of the Gover-

nor-General, which is built in the Ionic style, on the north side of the esplanade. A fine quay called the Strand, raised 40 feet above low-water mark, and furnished with 30 principal *ghauts* or flights of steps, for access to and from the water, extends between two and three miles along the banks of the river, northward from the esplanade; and a fine drive, called the Circular Road, is carried round the whole city, including also the citadel and its esplanades, and marking the limits of the English law. The Hoogly is about a mile wide at high water, and ships of 600 tons can lie almost close to the quay; on both sides, but particularly at Kidderpore, there are docks in which ships of any size can be built or repaired. A plan has been proposed for the erection of a floating bridge, similar to that at Devonport. There are 11 Christian places of worship, where service is performed every Sunday in English; several small mosques and pagodas; and several colleges and schools. (See EDUCATION, p. 700.) The population of the city amounted in 1837 to about 230,000, composed of Hindoos and other Asiatics, from every province and country, with Armenians, Jews, Britons, and a few other Europeans; but the population of the suburbs amounted at the same time to 217,193, making altogether a population of nearly 450,000. On the west side of the Hoogly is a splendid botanic garden of 300 acres, and near it, opposite Fort-William, is Bishop's college, a large Gothic building forming three sides of a square. By means of the Ganges and its branches Calcutta has the benefit of a very extensive inland navigation; and thereby monopolizes the whole external trade of Bengal. The gross amount of its exports is from £10,000,000 to £12,000,000 a-year. According to the report of the chief magistrate of police, the number of crimes committed, in 1825 was 1889, and in 1838, 1937; the greater part being burglary and theft.

Barrackpore, 10 miles above Calcutta, contains a cantonment, the head-quarters of the troops of the presidency, with a country house of the Governor-General, and a fine park. The artillery cantonment is at *Dum-Dum*. **Serampore** is a pretty town, with 13,000 inhabitants, built almost entirely in the European style, on the right bank of the Hoogly, opposite Barrackpore. Serampore is the residence of the Governor-General of the Danish possessions in India, and also of the English Baptist missionaries, who have there established a printing press, and issue from it translations of the Bible into most of the languages of India, and of several other countries of the East. It is, however, chiefly remarkable as the sanctuary of Calcutta, the place to which all the malefactors and bankrupts retire to avoid the consequences of the law. **Chanderuagore** is a French settlement, also on the Hoogly, occupying a high and picturesque situation. **Chinsura**, a pretty little town, lately a Dutch settlement. **Diamond Harbour** is a miserable place, 34 miles below Calcutta, where ships drawing more than 17 feet water stop. **Dacca**, on the left bank of the Borri-Gunga or old Ganges, is a large irregularly built town, formerly the capital of Bengal, and the principal seat of the muslin manufacture, but is now falling rapidly to decay. It contained, in 1830, 158 mosques, 55 Hindoo temples, 4 Christian churches, and a population of 75,000, including the military. Dacca is 400 miles from Calcutta by water, though only 189 in a direct line. **Moorshedabad**, which extends eight miles along both sides of the Bhagirathy or Cossimbazar river, was the capital of Bengal from 1704 to 1771, and is still the residence of the hereditary Subahdar or Nawab of the province, who is a pensioner of the British government. Population of the town and district, 762,000. The ruins of *Gaur*, the once flourishing capital of Bengal, are situate in the district of Dinapore. Its decline and abandonment was occasioned by the desertion of the Ganges, which formerly flowed past it, but is now $4\frac{1}{2}$ miles distant. *Rajmahal*, a small town on the Ganges, represents the ancient *Baliputra*, (*Palibothra* of the Greek geographers), built by the demi-god Bala-Rama, and long the capital of a powerful kingdom. *Chittagong* or *Islamabad*, is a large town of 12,000 inhabitants, situate among small abrupt hills, which furnish beautiful sites for English villas, 10 miles from the sea, on the river Kurmoolee. *Chirra-punjee* or *Cheera-poonjee*, 30 miles N.N.W. of Silhet, about 4900 feet above the level of the sea, in the Cossyah hills, a sanitarium or health station for Europeans. The foot of the hills on which it is situated can be reached from Calcutta by steam in six days, after which, however, there is a fatiguing journey of nine hours from the landing place. *Nunklow* station, 40 miles N. of Chirra-punjee, and 4550 feet above the level of the sea, is described as one of the loveliest spots in the world, resembling more a gentleman's demesne in England than the general character of Indian scenery. The thermometer in May ranges from 67° to 75° ; in June from 68° to 72° ; in winter there is frost and ice. A military post has also long been established at *Bishnath*, in Silhet.

Table of the principal towns in Bahar, with their distances from Calcutta:—

Arrah,	310 N.W.	Daoudnagur,	296 N.W. by W.	Mow or Mhow,	300 N.W.
Bahar,	360 N.W.	Darbhanga,	300 N.W. by N.	Norungah,	300 W.N.W.
Bettiah,	385 N.W.	Doesah,	235 W. by N.	Palamow,	290 W.N.W.
Boglopore,	210 N.N.W.	Echagur,	170 W. by N.	Palcote,	245 W.
Buxar,	350 N.W. by W.	Gayah,	270 N.W. by W.	PATNA,	290 N.W.
Chackle,	200 N.W.	Hajepore,	300 N.W.	Ramgur,	210 N.N.W.
Chittra,	265 W.N.W.	Hazareebaugh,	220 N.W.	Serris,	312 W.N.W.
Chowwar,	200 N.W.	Islampore,	274 N.W.	Sheergotty,	270 W.N.W.
Chuprah,	330 N.W.	Koondah,	273 W.N.W.	Sillee,	180 W. by N.
Curuckpore,	210 N.W. by N.	Kotumbah,	300 W.N.W.	Tarrapore,	290 N.W. by N.
Curuckdeah,	200 N.W.	Monghir,	230 N.W. by N.	Toree,	250 W. by N.

PATNA is a large city on the right bank of the Ganges, containing about 300,000 inhabitants, 400 miles N.W. travelling distance from Calcutta by Moorshedabad, or 340 by Birbhoom. Two miles west from Patna, with which it is connected by the civil station of *Bankipūr*, and the suburb of *Digah*, is the cantonment of *Dinapūr* or *Dinapore*, a station for European troops, and the head-quarters of a division usually commanded by a Brigadier-General. *Hajepore*, or *Hajepore*, or *Hajypour*, at the mouth of the Gunduck, nearly opposite Patna, has some pretensions to be considered the Newmarket of India. The races at the annual fair, in November, are well attended and are always exceedingly gay. *Gayah*, 55 miles S. of Patna, the chosen residence of Budha-Guadama, with 35,000 inhabitants, formerly contained a great temple, and is still resorted to by numerous pilgrims. *Mount Mandar*, an isolated conical hill, 20 miles S. by E. of Boglopore, is renowned as a place of pilgrimage, on account of its having been employed by the Hindoo gods to churn the ocean, for the purpose of procuring the *amreeta*, or drink of immortality. *Deoghur* or *Baidyanath*, in the district of Birbhoom, 53 miles S.S.W. of Boglopore, contains a celebrated temple, situate on a rising ground in the midst of a forest. The temple consists of 16 distinct *muts* or pagodas, each about 77 feet high, terminating with the trident, one of the emblems of Mahadeva. At the great annual festival Deoghur is thronged with pilgrims; but at other times there are few residents besides the police, officers of government, and the people of the bazaar.

To the government of Bengal are also attached the province of *Cuttack* or *Kuttack*, in Orissa; *Assam*, in the valley of the Brahmaputra; *Aracan* and other wild countries to the east and south-east. *Kuttack* extends along the sea-coast to the south-west of Bengal, for about 150 miles, meeting the northern circars of the Madras presidency at the Chilka lake. The coast is similar to the contiguous coast of Bengal, being low, and subject to frequent and calamitous inundations. Within from two to five leagues inland the country rises into swelling undulations, which continue from 15 to 20 miles in breadth, gradually increasing in height, till they form hills, with a dry and fertile soil, and covered with magnificent forests. This hilly region, named *Morabundy*, has a soil of a whitish appearance,

strewn in many places for miles with a thin sprinkling of limestone concretions; it extends from north of the Mahanuddy to Midnapore; it is finely cultivated, and has a most picturesque appearance. At Balasore a group of fine hills approach within 15 miles of the sea. The interior, however, is little known; the hilly region is said to extend for 200 miles in length, by 100 in breadth; the elevation of the highest hills seen from the Mogulbundy is estimated at 2000 feet, but their general elevation only from 300 to 1200. They consist chiefly of granite, resembling sandstone, and containing a variety of minerals and precious stones. The granite rocks are very hard and naked, presenting a bold and varied outline, with sharp peaks and abrupt craggy faeces; they are in many parts curiously intersected with trap veins. The rivers in the lowlands are embanked with immense earthen mounds, sometimes 60 feet thick, and 20 high. *Cuttack*, the capital, which is situate on a branch of the Mahanuddy, 250 miles travelling distance from Calcutta, contains upwards of 6,000 houses, and 40,000 inhabitants. *Balasore*, 100 miles N.E. of Cuttack, is a seaport town on the Booree-Bellaun river, which is not navigable for vessels of greater burden than 100 tons. Pilots for the Hoogly are procured in Balasore roads. *Pooree*, a small town on the coast, 45 miles S. of Cuttack, is considered the Montpellier of Bengal, the climate being somewhat dry, while a refreshing sea-breeze blows continually from March till July. It contains, or adjoins, the celebrated temple of *Juggernaut*, who is an incarnation of Vishnu; but he is accompanied by his brother and sister; and, besides these, all the idols particularly venerated by the Hindoos find a place within the precincts of the temple, so that all castes and sects may unite in celebrating the great yearly festival. The body of the temple consists of a pagoda 200 feet high, which forms a landmark at sea; and the various services are performed by about 3,000 Brahmins and their attendants. The number of pilgrims who attend the yearly festival amounts to 8,000 or 100,000. On this occasion the idols are placed on cars, to which long ropes are attached, and by these the people draw them forth, it being considered a meritorious service to assist in dragging the deities; and sometimes people throw themselves before the ponderous wheels, for the purpose of being crushed to death, and thereby obtaining an entrance into Paradise. The superintendence of the temple is vested in the rajah of Khoordah; and 50,000 rupees (£5000) are paid annually for its support, by the East India Company, out of the ordinary revenues of the province. The country round Pooree is considered holy to a great distance; but the most sacred portion is confined to a circuit of about eight miles. The country consists of low sand hills, covered by a thick but not lofty forest. About a mile from the sea vegetation suddenly ceases; the intervening space being a waste of deep and loose sand along the desolate shore. Pooree is situate on the edge of this desert; and the European cantonments stand on a high ridge, perfectly destitute of verdure, fronting the sea, and enjoying the benefit of its cooling breezes. The town is in consequence a desirable residence; and many persons, worn out with the heat of Bengal and Hindustan, are delighted to loiter upon the healthful, though solitary, shores of Cuttack. Juggernaut is as sacred in the estimation of the Buddhists as of the Brahmical Hindoos, on account of its having contained for a period of eight centuries the *dalada*, or tooth of Buddha, which is now in Ceylon. The name Juggernaut, properly *Jugat-nata* (lord of the universe), is an appellation which Gautama-Buddha himself assumed; for it is said that on the day he became Buddha, as well as when about to expire, he exclaimed, "O universe, I am thy Lord." Allahabad, Benares, Durjodum, Gaya, Saugor island, and Juggernaut, are places of devout pilgrimage to the Buddhists of Thibet, but the last two are of pre-eminent sanctity, whilst Gaya, the birthplace of their legislator, is only of secondary rank. All castes are privileged to mix within the sacred limits of Juggernaut; they are said to be even blameless for eating together, which savours more of a Buddhist than of a Brahmical origin.—(*Forbes' Ceylon*, II. 217.) *Kannaruc*, or the black pagoda, on the coast, 15 miles E. of Pooree, has been one of the most splendid temples of which India can boast. It was a temple of the sun, of greater antiquity than that of Juggernaut; but has lost its sanctity, and is now deserted. The building is lofty, forming a landmark at sea, and is adorned with numberless sculptures of exquisite beauty, but generally of an indelicate character. It stands in the midst of a wilderness of sand, partially overspread with jungle; and great part of the building is now in ruins.

ASSAM is situate in the valley of the Brahmaputra, to the eastward of Bengal, is about 360 miles in length, and from 20 to 70 in breadth, and contains an area of 18,900 square miles. It extends from the river Monash to the foot of the Himalayas, close upon the western frontier of China; on the north it is bounded by a cold mountainous country, and on the east and south by a range of mountains which gradually decrease in elevation as they proceed westward, separating Assam from the basin of the Irrawaddy, and the rivers of Silhet and Cachar. The country is almost a perfect flat, studded with little conical green hills, which rise abruptly to the height of from 200 to 700 feet. It is intersected in every direction by the branches and affluents of the Brahmaputra, which are almost everywhere navigable; it is always swampy, but in the dry season the ground is susceptible of cultivation, and produces abundant crops. Assam is rich in mineral treasures; nearly all the streams carry down particles of gold; the mountains contain precious stones, and silver; iron is found under the Naga hills, and elsewhere; and coal of good quality has been found to the east of Rangpur. The soil of the hills is composed of a rich red loam, with a sprinkling of particles of quartz or talc; and large masses of granite are scattered over them in whimsical confusion. It is well adapted for agricultural purposes, and for many hundred miles, might be converted into one continuous garden of silk, cotton, coffee, sugar, and tea. The last is an important article of produce; it grows wild in Upper Assam; is the identical tea tree of China, and only requires the same care in its culture and manipulation to rival or supercede the "fragrant weed" of the celestial empire. Coffee is also found in its wild state. Assam is beyond the influence of the moonsoons; the wind blows from east or north-east for nine months in the year, and seldom in any other direction for more than a few days in succession. In the rainy season, in July, the whole country is flooded like an inland sea, the river rising to an average height of 30 feet. Some centuries ago it was richly cultivated by an industrious and enterprising people; but now seven-eighths of the surface are covered with jungle, which emits febrile miasmata. The ruins of splendid temples have been discovered in the midst of wastes and forests; and large tanks, overgrown with brushwood, point out the sites of once populous cities. The ruling people of Assam, who were called Ahoms, and belonged to the Tai family, are supposed to have migrated from the borders of China, and to have conquered the country early in the thirteenth century. In the 17th century they were converted to Hinduism, and adopted the language of Bengal. The present representative of the powerful kings of Assam resides at Jorhath in tawdry splendour, his resources are limited to those of a zemindar, his nobility has been reduced to beggary, and his court presents the empty mockery of royalty. The central part of Assam, with a population of about 200,000, was left for some time under his immediate government, after the country was recovered from the Burmese in 1826; but it has been again resumed, and placed under the immediate charge of British officers. The most ancient capital was *Ghergong*, a city of great extent, built of brick or stone, a few miles above Rangpur; and about 10 miles from it is *Azon*, the burial place of the kings, where their remains were deposited in a vault under a magnificent temple. During the splendour of the Assam princes *Gowhatti* was also a large city and fortress, but few vestiges of its grandeur now remain. It has however again, within a few years, grown up from a cluster of huts to a well-built and populous town. *Sadiyah*, in Upper Assam, was for sometime a British military station, but it has been abandoned, and the head-quarters of the army have been established at *Saikwah*, on the opposite bank of the Brahmaputra, three miles below. *Goalpara*, in Lower Assam, is rapidly rising

In importance as a mart for the produce of the country. The Assamese are chiefly Hindoos, followers of Brahminism, and subject to an influential, intriguing, and vicious priesthood. There is also a large proportion of Moslems, who are held in great contempt. The population is besides composed of great numbers of people from the hill country, who intermarry with the Assamese. In Upper Assam, and among the hills, are various wild tribes, as Bootas, Akas, Duphas, Koppachors, Miris, Abors, Bor-abors, Mishmis, Kangtis, Bor-Kangtis, Singphos, Muttukes, Nagas, Muniporis, Caeharis, Kassyas, and Garrows. The Kangtis, who are Buddhists, and live in Upper Assam, are the most civilized; but the most numerous and most formidable tribe are the *Singphos*, who are sometimes very troublesome, but nevertheless acknowledge the paramount authority of the British Government. The whole country has been hitherto in a state of abject barbarism; but, under its new masters it is rapidly improving; and promises to become one of the finest and richest provinces of the Indian empire.—(*Topography of Assam*, by John M. Cosh, Calcutta, 1831.)

ARACAN or RAKHAIN lies along the east side of the Bay of Bengal, between $17^{\circ} 20'$ and $21^{\circ} 20'$ N. lat.; extending 230 miles in length, with a breadth varying from 10 to 100, average 60; and containing about 16,500 square miles, of which only 1-2th part is cultivated. It is bounded on the east by a range of mountains, named *Yiomadong* by the Aracanese, and *Anapetcomiou* by the Birmans, which stretches northwards from Cape Negrais to the Tipperah hills. Its mean height is 3000 feet, but in some places it reaches 5000. Not less than 22 passes are said to exist in the ridge, leading between Aracan and Ava; but only five are used for this purpose; the best is the pass of *Aeng*, the summit of which is 4664 feet above the level of the sea. Towards the east side the mountains decline by a succession of terraces; but towards Aracan the descent is steep and abrupt. The northern part of the province consists of the large valley of Aracan Proper, which is divided from the Bay of Bengal by a range of heights, which scarcely rise to more than 700 feet, and generally assume a conical shape. Some of them are insulated; others are connected by narrow ridges; but all are scattered irregularly, and separated by ravines, valleys, and confined level spots, each occupied by a stream, a lake, or a marsh. The valley of Aracan varies in width from 10 miles or less to 40; but is so little above the level of the sea, that the tides overflow the flat borders of the rivers to a considerable extent, and leave them at ebb a noisome swamp. With the exception of this swampy ground, the soil consists of rocks crumbling on the surface, and covered by a thin layer of loose black earth, overspread with grass and jungle. In July, when the rains become abundant, the whole valley is inundated; and so numerous are the rivers which intersect it, that they form a complete labyrinth of water communication between the towns and villages during the greater part of the year. The principal river is the *Keladyne* or *Huriting*, which rises between Chittagong and Munipoor, and has a course of about 250 miles, terminating in a bay full of low islands of considerable size. The valley is extremely unhealthy; the heat, the inundations, and the general moisture, all contributing to this effect. Even in the dry season, November, December, and January, occasional, and sometimes heavy showers occur; in February, March, and April, they become more frequent; and still more so in May and June, when the periodical rains set in, and continue till November. Heavy dews and thick fogs prevail, even in the dry season, and great heat in the day-time; the thermometer rises in July to 89° , in August to 94° , and is never under 77° in these months. The country is extremely fertile, and the soil fit for the cultivation of almost all kinds of tropical produce; but nothing except rice is cultivated to any extent. Indigo, cotton, tobacco, hemp, sesame, and mustard seed, are also raised; the sugar-cane grows very luxuriantly, and might be cultivated to a great extent; black pepper grows wild near Aeng, but is nowhere cultivated; fruit is plentiful, and of excellent quality. The pine-apples and the plantains are perhaps the finest in the world, and are produced in the greatest abundance. Mangoes, jack-fruit, sweet-limes, and cocoa nuts, are plentiful, but oranges are scarce. Onions, garlic, and turmeric, are the principal culinary vegetables; but bhangers, red pepper, cucumbers, water-melons, papayas, and raktalus, are also abundant. No forest trees grow in the valley, nor on the hills along the shore; but large forests of teak abound in the mountains. Tigers and elephants are found in the upper part of the valley; there are also poultry of various kinds, buffaloes, silk-worms, and bees. Fish are so plentiful, that they supply not only a principal part of the food of the people, but also, when dried, an article of export. The whole coast is intersected by rivers, creeks, and inlets of the sea, so as to form a series of peninsulas, isthmuses, and islands, some of the latter of which are large, particularly those of *Ramree* or *Cheduba*. Ramree is about 50 miles in length, mountainous and covered with jungle, and separated from the mainland by a narrow strait. Cheduba is only about 30 miles in length, but, further from the land, low, dry, and sandy, tolerably free from jungle, and healthy. *Akyab*, at the mouth of the Aracan river, is similar to Cheduba, but smaller. Between Akyab and Ramree is an extensive and numerous group of hilly islands, mostly uninhabited. *Broken Islands* are a group of high insulated hills to the north of Aracan; *Hardy Islands* and *Foul Island*, to the south-east of Ramree and Cheduba. Aracan was conquered from the Birmans in 1826, and is now under the charge of a commissioner, and divided into the four districts of *Akyab*, *Ramree*, *Sandoway*, and *Aeng*. In 1831 the population amounted only to 173,928, in 1839 it had increased to 216,951, chiefly by immigration from Chittagong and the neighbouring districts of Bengal. The net revenue has reached 457,183 rupees (£46,000). *Aracan*, the capital, stands on a navigable river, 50 miles from the sea in a direct line; it was formerly very large, but its population has fallen to 3000, and is still diminishing. Its trade has passed to Akyab, at the mouth of the river, a place which has been selected on account of its advantageous position for health and trade, and is rapidly increasing. *Kyook-Fyoo*, *Kyook-Phyoo*, or *Keauk-Fee* (white stone bay), at the northern end of Ramree, is large enough to accommodate the whole British navy. It is land-locked on three sides, east, west, and south, and is thus completely secured against the south-west monsoon; the anchorage has from 8 to 15 fathoms water throughout; the beach consists of fine hard sand, strewn with beautiful white pebbles, from which the harbour and one of the islands derive their names. The town of *Kyook-Fyoo* contains 2000 inhabitants; *Ramree*, on the same island, 7000. The latter stands on a creek in a low situation, surrounded by hills, but bears a high character for salubrity.

To the southward of Assam and eastward of Bengal are situate several wild countries, named *Cachar* or *Kachar*, *Tipperah*, *Munipoor* or *Munipir*, *Kosiah* or *Cossya* or *Kossiyah*, *Gonasser*, and the *Garrows*, which form a sort of neutral territory, between Bengal and Birmah. *Munipir* contains an area of 7000 square miles; the central portion of which consists of a valley of rich alluvial soil, 36 miles by 18, 2500 feet above the level of the sea; the climate is favourable; and the fruits of both tropical and temperate climates are plentiful. It was formerly very populous and well cultivated, but is now overspread with jungle and marshy swamps. *Chundrapore* is the present capital; the ancient metropolis consists only of ruined temples, mounds, and ditches. It was conquered by the Birmese in 1774, and reconquered by the British in 1825, who restored the Rajah. The Munipoories are active soldiers and expert horsemen, and are very courageous. They profess to be Rajpoots, but they have broad Tartar features; the women are coarse and masculine. *Cachar* contains 4200 square miles; its capital is *Cos-poor*. The country is in great measure waste; and part of it is under British rule. The *Kossiyah hills* extend from Silhet to Gowhatti, being an elevated region of 3500 square miles, which forms a sort of table-land, varying from 4000 to 6000 feet above the level of the sea. The inhabitants are ruled by a number of petty Rajahs, who form a sort of confederacy. *Gonasser* and the *Garrows* are a continuation of the same elevated region, extending westward to the great bend of the Brahmaputra. In the *Kossiyah hills* is *Cheera-poonjee* or *Chitra-punji* or *Chura-pourjee*, a sanatorium, 30 miles N.N.W.

of Silhet, and 4000 feet above the level of the sea. *Tipperah* or *Tiperah* is situate to the north-east of Chittagong; some parts of it are rich and fertile, but the greater part of the country is wild, covered with jungle and forests, and abounding in wild elephants and other animals.

§ 2. Government of Agra or the North-west Provinces.

These provinces extend from the mouth of the Soane upwards, along the Ganges and the Jumnah, to the sources of these rivers, including the Doab or peninsula between them; the hill country of Kumaon, Hurriancee, Rohileund, Bundelcund, ceded districts on the Nerbuddah, and the districts in Gundwana and Orissa, ceded by the Rajah of Berar in 1826. The outline of the provinces is extremely irregular, varying from about 50 miles in breadth to 500; and they comprise altogether about 170,210 square miles, divided thus:

Government of Agra Proper, containing the districts of Allahabad, Futtehpore, North Bundelcund, South Bundelcund, Benares, Ghazee-pore, Gurruckpore, Juanpore, Azimgur, Mirzapore, Agra, Allyghur, Furruckabad, Bareilly, Shah-jehan-pore, Saharunpore, Meerut, Cawnpore, Etawah, Moradabad, and Bolundshuhur,	Sq. miles. 66,510
Hill Countries of Kumaon, &c.	18,000
Ceded Districts on the Nerbuddah,	29,800
Districts ceded by the Rajah of Berar, in Gundwana, in 1826,	55,900

170,210

In the lower districts of Agra, along the rivers, the country is flat, and, where well watered, is exuberantly fertile, particularly in the *Doab*, or peninsula between the Jumnah and the Ganges. As abundance of water is indispensable to fertility, the government have it in contemplation to cut a canal from the Ganges, near Hurdwar, through the length of the Doab, to the south of Coel and Mynpoorie. To the south-west the country rises considerably, and in Bundelcund or Bundelkhund, becomes a table-land diversified with hills, where were formerly numerous strongholds, whose ruins still crown the summits. This table-land contains the famous diamond mines of Punnah. To the north the country along the rivers still continues flat, as far as the Sub-Himalayas, where it is only 1000 feet above the level of the sea, though nearly 1000 miles distant from it in a straight line; but towards the west and north-west frontier, it becomes hilly and wooded. Westward of Delhi is the province of *Hurriancee*, which, in the flourishing times of the Mogul empire, was the appanage of the heir apparent, and is celebrated for the fine verdure, from which it derives its name, for the herds of cattle which are pastured on it, for its lions, and for the valour and independent spirit of its inhabitants. Eastward of Delhi, between the Jumnah and the hills on the north-east is the extensive territory of Rohileund, which derives its name from the Rohillas.—(See PEOPLE.) The soil and climate of Rohileund are very fine. The sugar, rice, and cotton raised there are the best in India; toddy and date palms are common, while the walnut, the apple, the pear, strawberries, and grapes, likewise thrive. *Kumaon*, *Gerhwal* or *Gurhwal*, and *Sirmoor*, are severally the names of a mountainous region, popularly called THE HILLS, extending from the Sutlej to the Kali, a distance of 250 miles east and west, and between the Sub-Himalayas and the crest of the main chain, to the north-east. The whole of this space is occupied by numerous ranges of mountains; and, when viewed from a commanding position, presents the appearance of a wide expanse of unconnected ravines, rather than a succession of regular chains. The valleys are lowest on the banks of the largest rivers, where, too, the greatest portion of level land is generally to be met with. These spots, however, never exceed, and seldom amount to, half a mile in breadth. The region contains the sources of the Ganges and the Jumnah, and of several of their tributaries, and no less than four of their five *prayagas* or holy junctions, the fifth and principal one being at Allahabad. The hill countries are blest with a delightful climate, the rigours of the winter being moderated by powerful solar radiation, while the summer heats are tempered by the snows of the Himalayas. Indeed during summer the vicinity of the frozen region causes a continual descending current of air which sets in daily, just as regularly as a sea breeze on a tropical shore, and with an equally invigorating freshness. At Saharunpore, the climate resembles that of the southern parts of Europe, the mean annual temperature being 73°. During more than half the year the Bhot districts of Kumaon are covered with snow, which begins to fall in September, and continues to accumulate till April. In open and level places, where the body of snow is in some parts 12 feet deep, it disappears early in June; but in the hollows it remains till the middle of July. During the five summer months the thermometer ranges at sunrise from 40° to 55°; at mid-day from 66° to 75° in the shade, and from 90° to 110 in the sun. During the cold season, on the contrary, owing to the great evaporation, the thermometer before sunrise is always lowest in the valleys, and the frost is more intense than on the hills of moderate elevation (below 7000 feet), while at noon the sun is more powerful. The extremes within 24 hours have been known to be 18° and 51°. The snow, however, does not fall equally every year; the natives say every third year is one of heavy snow; but in general it does not lie long, except on the mountain tops and ridges. The heat, however, diminishes as the height increases. At Massourie (6700 feet), the mean annual temperature is only 57°; indeed, at an elevation of 4000 feet the hot winds cease, and vegetation assumes a European character. The quantity of rain which falls at Almora is from 40 to 50 inches. (See ante VEGETABLE PRODUCTIONS.)

The tiger is found quite up to the glaciers, of size and ferocity undiminished; there are also lynxes and hyenas, and bears are common, and mischievous. The elamois is not uncommon among the snowy mountains; the musk deer is found only in the highest part of the province; it is unable to bear even the heat of Almora; the yak or Tibet cow also droops as soon as it leaves the neighbourhood of the ice. The shawl-goat will live, but its wool soon degenerates; while the English dog is said not only to improve in strength, size, and sagacity among the Bhootas, but to acquire in a winter or two the same fine short shawl wool, mixed up with its own hair, which distinguishes the indigenous animals. The same is to a considerable extent the case with horses. Hares are found here, much larger and finer than in the southern provinces, and not inferior to those of Europe. A beautiful flying squirrel is not uncommon in the higher and colder parts of the forests; small marmots, of the Alpine species, abound in the neighbourhood of the snow; and rats of the same species as those of India are numerous and troublesome. There is also a beautiful and rare animal of the deer species, called *goonh*, sometimes employed in carrying the children of chiefs. But the most remarkable animal is a wild dog, in form and fur resembling a fox, but considerably larger and stronger, and very wild and fierce. These dogs hunt in packs, giving tongue like dogs, and possess a very fine scent; they make tremendous havoc among the game of the hills; but compensate this mischief by destroying other wild beasts, and even tigers. Eagles are numerous and very formidable. Quails, partridges, pheasants, larks (not very different from those of England), a black thrush, a little black and red bird, with a note like a robin's, and the goldfinch, are also found. The inhabitants of the hill country are almost all Hindoos, or at least claim a descent from Hindoo colonists who took refuge there from the Mahometan invaders; while their chiefs boast of Rajpoot blood; but they are held in little esteem by their brethren of the plains. In many points which are held to be of the highest importance, they are by no means orthodox; and the circumstance of their dispensing with the ablutions, considered to be so necessary by the worshippers of Gunga, forms an abomination which Europeans unite in

reprobating. Mahadeo (Siva) is the god to whom they pay the greatest homage; but their brahmins are an ignorant race, utterly unacquainted with their sacred writings.

Kumaon, which is the eastern portion of the territory, and contains a superficial area of about 19,697 square miles between the Kali and the Ganges, is directly under the British Government. The portion to the north-west of the Ganges, as far as the Suttlej, and up the valley of the latter river to the borders of Thibet, is governed by native chiefs, who are completely subject to British control, and are under the charge of a resident or commissioner, who resides at Umbala or Subhatoo. That part of the valley of the Suttlej which is under British control, and named *Kanour* or *Kunawur*, stretching between the Himalayas and Chinese Tartary or Thibet, is the most delightful region that the per of the traveller has ever attempted to describe. The climate is the finest in the world, being beyond the reach of the periodical summer rains, and subject only to such gentle and refreshing showers as are necessary for the cultivation of the land. The fruits and the flowers of all countries flourish in this delightful spot; those of Europe are indigenous, and reach perfection with little care. The grape grows in such luxuriant abundance, that from this province alone the whole of India might be supplied with wine. It contains eighteen species of the vine. Honey also is plentiful; but bears are numerous, and very destructive to the vineyards and the hives. Though covered with hills apparently too steep for cultivation, the country is nevertheless very fertile, yielding more corn and vegetables than are sufficient for the support of a numerous population. The country, however, is very high; the villages are generally at the elevation of 8000 or 9000 feet, and some are so high as 12,000; at the north-east frontier, the elevation of more than 20,000 feet above the level of the sea has been attained by travellers without crossing snow; but, nevertheless, the sun's rays for a few months in summer are oppressive, though the atmosphere in the shade is freezing. The nights become frosty in the middle of September; the thermometer sinks below the freezing point in the mornings in October; snow falls towards the end of that month, and covers the ground till March or April. The climate being dry, the falls of snow are not heavy; but the winters are, nevertheless, extremely rigorous. The passes by which Kunawur is approached from the Indian side of the Himalayas are at present somewhat difficult, but might easily be rendered very passable. Kunawur belongs immediately to the Rajah of Bissaher, whose territory includes a large portion of the valley of the Suttlej and the adjoining mountains.

The ceded districts on the Nerbuddah, and in Gundwana and Orissa, extend through the middle of India, comprising a large tract of hilly, ill cultivated, and imperfectly explored country, intersected by deep ravines and fertile valleys, and covered in many places with dense forests. They have not yet been reduced to the form of regular provinces, but are placed temporarily in the charge of commissioners, who exercise the whole functions of government.

The principal towns in the north-west provinces, with their distances from Allahabad, are stated in the following table:—

AGRA,	260 N.W. by W.	Gohud,	230 W.N.W.	Nugeena,	354 N.W. by W.
Ajmere,	440 W. by N.	Gooroodwara,	400 N.W. by N.	Nusseerabad,	430 W. by N.
Ajmerghur,	190 S.	Gurrah,	200 S.W.	Paniput,	410 N.W.
Allyghur,	290 N.W.	Hansi,	442 N.W. by W.	Patialah,	475 N.W.
Almora,	320 N.N.W.	Hatras,	274 N.W.	Peeleebheet,	260 N.N.W.
Anopshahr,	300 N.W.	Heerapore,	210 S.W. by S.	Punnah,	112 W.S.W.
Bareilly,	260 N.W. by W.	Hissar,	462 N.W. by W.	Rampore,	
Belaspore,	510 N.W. by N.	Hurdwar,	385 N.W. by N.	Rewaree,	370 N.W. by W.
Benares,	53 E.	Jehangerabad,	305 N.W.	Rohtuk,	400 N.W.
Bhuthere,	535 N.W. by W.	Jubbulpore,	190 S.W.	Rotasghur,	136 E.S.E.
Booldunshuhr,	320 N.W.	Jushpore,	250 S.E. by S.	Saharunpore,	400 N.W.
Callinger,	90 W. by S.	Kallinger,	90 W. by S.	Samanah,	474 N.W.
Calpie,	140 W.N.W.	Kalpie or Calpie,	140 W.N.W.	Sasseram,	140 E. by S.
Canouge,	165 N.W.	Khimlassa,	226 W.S.W.	Saugur,	215 S.W. by W.
Cawnpore,	120 N.W.	Konknugger,	230 S.E.	Seheraunpore,	400 N.W.
Chumarghur,	70 E. by S.	Konech,	172 W.N.W.	Seronge,	260 W.S.W.
Coel,	280 N.W.	Kurnaul,	420 N.W.	Shahjehanpore,	220 N.W. by N.
Cutterah,	232 N.W. by W.	Kuttrah,	232 N.W. by W.	Simla,	490 N.W. by W.
Darabnugger,	350 N.W.	Landour,	420 N.W. by W.	Sirdhana,	370 N.W.
Dehra,	410 N.W. by N.	Loodiana,	520 N.W.	Sirgojah,	180 S.E. by S.
DELHI,	360 N.W.	Mandonthee,	380 N.W. by W.	Sirlind,	490 N.W. by N.
Deobun,	390 N.W.	Massource,	420 N.W. by W.	Sirinagur,	380 N.N.W.
Etawah,	200 N.W. by W.	Maundoo,	450 S.W. by W.	Sohagapore,	160 S.
Ferozepore,	580 N.W.	Meerut,	350 N.W.	Sookertal,	370 N.W.
Furruckabad,	200 N.W.	Mhow,	420 W.S.W.	Soonput,	380 N.W.
Futtehpore- Sikri,	270 W.N.W.	Mooradabad,	300 N.W.	Subhatoo,	490 N.W. by W.
Gangpore,	295 S.E.	Mundlah,	205 S. by W.	Sumbhulpore,	305 S.S.E.
Ghaziore,	112 E. by N.	Muttrah,	295 N.W. by W.	Thanesur,	440 N.W.
Ghoosghur,	400 N.W.	Narwar,		Umballa,	456 N.W.

ALLAHABAD, the seat of government, is an ancient city situate at the point of the peninsula formed by the confluence of the Ganges and the Jumnah, 820 miles from the sea by the course of the Ganges, but only 475 W.N.W. in a straight line from Calcutta. The houses are built of mud, and so lately as the time when it was visited by Bishop Heber, the city bore a desolate ruinous appearance; but it is now improving, and the population which, in 1803, was estimated at 20,000, had increased, in 1831-2, to 64,785. The fortress erected by the Emperor Akbar has been much improved since it came into the possession of the British Government; it is lofty and extensive, and, being situate at the very point of confluence, completely commands the navigation of both rivers. Allahabad is the grand military depot of the upper provinces. The Ganges is here a mile wide, and the Jumnah 1400 yards. The confluence of the rivers forms one of the five *prayagas* or holy junctions; on which account it is visited by multitudes of pilgrims who come to bathe in the sacred spot; and some for the purpose of drowning themselves, with the certainty of reaching paradise through so holy an entrance. In some years the number of pilgrims has amounted to 220,000. They believe that a third river, the Sereswati, joins the other two below ground; and it is owing to this extraordinary circumstance that the prayaga of Allahabad is reckoned peculiarly holy.

BENARES or BUNARUS, called also KASHI, the sacred capital of Hindûism, is a large city on the left bank of the Ganges, 53 miles E. of Allahabad. The Ganges here forms a fine sweep of four miles, and the convex side of the curve, which is a high bank, is covered with buildings to the water's edge. The streets of the city are very narrow, and the houses generally lofty. Benares has long been celebrated as the chief seat of Brahminical learning; but, in addition to the holy character of the city, the inhabitants are also very industrious and wealthy. It is the great mart or entrepot for the trade between the north-west and the south-east provinces, and has, besides, considerable manufactures of its own. A new road is forming between it and Calcutta. Benares is built, say the Brahmins, not on common earth, but on the point of Siva's trident; and is so holy that whoever dies here, of whatever sect, and even though he should be an eater of beef, provided he is charitable to

the poor Brahmins, is sure of salvation. This reputation for holiness makes Benares the great resort of beggars; because, besides the attraction of the alms of the multitudes of pilgrims who are continually going and coming, many rich individuals in the decline of life come here to wash away their sins, and expend large sums in profuse and indiscriminate charity. The principal place of worship is a pagoda called Viswisher or Visshishor; which, though small, is handsome, and contains a black cylindrical stone, representing Siva, the Mahadeo or Great God. Both men and women resort in crowds every morning and evening to adore this idol. There is besides a stone figure of Siva's bull, and usually a sacred live bull also within the court of the temple. There are also numerous smaller temples, and a celebrated observatory erected by a rajah of Jyengger; but there are only a few Moslem mosques. The largest was erected by the Mogul Emperor Aurungzebe on the highest part of the bank of the river, on the site of a famous Hindoo temple, which he destroyed for the purpose. This mosque is distinguished by its two slender and very lofty minarets, peering far above every other object. All the principal houses of Benares are built of stone; but the streets are so very narrow that a palanquin has barely room to pass. The city is divided into 390 mahalas or wards, each with gates regularly closed at night. The population was estimated, in 1803, to exceed 582,000; but, since 1822, it has been ascertained by Mr. Prinsep to be only about 200,450, of whom 181,482 live in the city, and 18,968 in Secrole, and sixteen neighbouring villages. About a fifth part of this population is Moslem; but the city itself is exclusively inhabited by Hindoos; the Brahmins forming a very considerable part of their number. The number of pilgrims who attend the great festivals varies from about 50,000 to 100,000. The British cantonment is at *Secrole*, to the west of the city; and at *Ramnagar*, on the opposite bank, but five miles up the river, is the residence of the Rajah of Benares, one of the East India Company's pensioners.

AGRA, which gives its name to the government, is situate on the right bank of the Jumnah, 830 miles W.N.W. of Calcutta, and 710 N.N.E. of Bombay. It was formerly a very large and populous city, one of the capitals of the Mogul empire; but has fallen greatly to decay, though it still contains about 96,576 inhabitants, of whom two-thirds are Hindoos and the rest Moslem. The city rises in a vast semicircle from the river, which is here half a mile wide, and consists of narrow streets, lined with flat-roofed brick houses. It is very conveniently situate for commerce, and is the entrepot of a very considerable inland and frontier trade. The plains, for several miles around the city, are encumbered with shapeless masses of bricks, stones, and mortar, the remains of beautiful buildings; and occasionally with the fading relics of a garden still surrounded by its ruined wall. In the midst of all this desolation rise two celebrated fabrics, the *Taj-mahal* and the fort. The latter is very large, surrounded by high walls and towers of red hewn stone, enclosing a splendid palace built by the Emperor Akbar, the mootee-musjed, or pearl mosque, a beautiful structure of white marble, and numerous other buildings now sadly disfigured and destroyed. The *Taj-mahal* is a splendid sepulchre of white marble, adorned with the finest mosaics, erected by the Emperor Shah Jehan for his beloved wife, Mehd-Altia, who was also called Mumtaj-mahal, Nur-mahal, and Nur-Jehan. It stands on a terrace within a quadrangular enclosure, measuring 300 yards by 190, and consists of a square building surmounted by a bulbous dome, and adorned with minarets. Shah Jehan intended to erect a similar tomb for himself on the opposite bank of the river, and to connect the two by a bridge; but, dying before his intention could be carried into effect, he was laid beside "the Light of the World," in this, the most splendid monument of conjugal affection ever erected. The *Taj-mahal* is said to have cost £750,000. It has been repaired, and the surrounding garden put in order, at the expense of the British Government, who have also assigned a handsome annual sum to keep it in repair. All who have seen it agree in considering the *Taj-mahal* to be the finest architectural structure in existence, and represent it as one of the wonders of the world. Six miles north of the city is *Secundr*, a ruinous village, which, however, contains one of the most splendid buildings in India, inferior only to the *Taj-mahal*. This is the tomb of Akbar or Ukhbar, the greatest and the best of the Mogul emperors; it is built of red stone, and consists of several tiers of arcades and galleries, over which, at the top, is an area surrounded by a marble screen richly carved. In the centre of the area is the monument of Akbar, of white marble, containing this inscription: "The God Akbar, may his glory be magnified!" together with the hundred names of God inscribed upon it in Arabic, interwoven with flowers and leaves beautifully executed in relief. The body of Akbar reposes in a plain tomb, under a lofty dome on the ground floor. From the top the view is extremely fine; the immediate neighbourhood is covered with the tombs of his wives, ministers, nobles, and courtiers, while in the distance is seen the town and fort of Agra, amidst ravines and ruins, and rising above them all the beautiful *Taj-mahal*, "the diamond of the desert." *Fatthpoor-Sikri* or *Fatty-poor-Sicri*, 23 miles west of Agra, though now a collection of huts and ruins, was formerly the Versailles of the Mogul emperors, and the favourite retreat of Akbar, whose palace is also in ruins. It contains a splendid mosque still tolerably entire. *Laurawce*, a village 70 miles W.N.W. of Agra, is celebrated for a great victory gained by General Lake over Scindiah's forces in 1803.

DELHI (*Deli, Dehlee, Delhi, Dely, Dely*), formerly the capital of the Mogul empire, and still the residence of the Great Mogul, whose empire is now limited to the walls of his palace, and whose revenues consist of a pension from the British Government, is situate on the right bank of the Jumnah, 137 miles N.W. by N. of Agra, and 800 feet above the level of the sea. Delhi is one of the most ancient cities of India, and celebrated in its history under the name of *Indraprest*; it formerly occupied a space of 20 square miles, but great part of its area is now covered with ruins. The city of New Delhi, founded by Shah Jehan in 1631, is about seven miles in circumference, and is surrounded on three sides by walls faced with substantial masonry of huge blocks of sparkling granite, and pierced by seven gates. Within are the remains of many splendid palaces and fine mosques. The imperial palace was also built by Shah Jehan, and stands within an inclosure of red stone walls which is a mile in circumference. It is built of red granite in a beautiful style. The gardens of Shahlimar were laid out by the same emperor, at the cost of about £1,000,000 sterling, but are now destroyed. The prospect to the south of the Shahimar, as far as the eye can reach, is strewn with the remains of extensive gardens, pavilions, mosques, and tombs, all of which are desolate and ruinous. In the reign of Jehangire, Ali Merdan Khan brought a canal from the upper part of the Jumnah, a distance of 120 miles, to Delhi; but in the general wreck of the empire it became choked up and useless. It was, however, completely restored in 1826 by the British Government, and now supplies the city with good water. The original purpose of the canal was to irrigate the lands; but it is now used to drive saw and flour mills, near Delhi. Under the rule of its present masters, Delhi has been for many years rapidly recovering from its ruined condition, and its population exceeds 150,000, one-eighth of whom, it is said, derive their means of subsistence from digging amidst the ruins of the old city, where they often find articles of value. About nine miles S. of Delhi stands the *Cuttub Minar*, a remarkable tower or pillar 242 feet high; it seems to have been intended as a minaret to a mosque, which was never completed; it was erected upwards of 600 years ago by the Afghan Emperor of Delhi, Cuttub Shah, whose tomb, a humble edifice, stands near it. The emperor died A.D. 1210.

AJMER (*Ajmere, Ajmhair*), a beautiful and flourishing city, situate in a small detached territory on the eastern flank of the Aravalli mountains, in Rajpootana, was formerly the capital of one of the provinces of the Mogul empire, but fell completely to decay. Since, however, it came into the possession of the British Government, the security thereby provided has induced many merchants of Marwar to settle in its streets, squares, and bazaars rise up almost daily a general uni-

formity of plan has been maintained; and the city promises to become the ornament of the country. Population in 1830, 25,000. Though surrounded by bare and rocky hills, the valley of Ajmere is beautiful, being wooded with reem, peepul, and tamarind trees, and watered by extensive lakes. It contains a strong fortress, which has been deemed impregnable, and has within its walls the tomb of Sheikh Kojah Mow-ud-deen, one of the most celebrated Moslem saints in India. The tomb is, externally, a very elegant Saracenic structure of yellow polished limestone, apparently inclosing an ancient Jain temple; and the Emperor Akbar is said to have made a pilgrimage to it on foot. It is still visited by numerous devotees. *Poshkur* or *Pokur*, six miles W. by N. of Ajmere, is a flourishing and populous town with a great yearly fair, and containing the only temple in India dedicated to Brahma, the Creator, or first person of the Hindoo triad. It is situated on the edge of a lake, an ablution in whose waters is believed to wash away the sins, not only of the person who bathes, but of the family he represents. It is annually visited in October by prodigious crowds of pilgrims, and a strong detachment of troops is despatched to the town to keep the peace among the Soniyasses, Yogies, Ghos-sains, and other holy devotees, who often come to blows and bloodshed in upholding their respective claims to superior sanctity. *Poshkur* is also renowned for its gardens and vineyards, the grapes of which are said to equal those of Shiraz, and are the largest and the best in India. *Nusseerabad*, 14 miles E.S.E. of Ajmere, a British military station or cantonment, is one of the healthiest in India, though very dreary. *Beaur*, one of the wildest stations in India, forms a sort of outpost to Nusseerabad, from which it is 30 miles distant. *Bhutnere* or *Bhutneer*, is a large fortress in the desert, 183 miles N.N.W. of Delhi. At *Hissar* there is a stud belonging to the Company. *Shappoon*, near Ajmere, is also a large place, with signs of prosperity, besides a large lake abounding with alligators.

Ghazipore or *Ghazee-pur*, is a large town and military cantonment on the left bank of the Ganges, nearly midway between Allahabad and Patna, celebrated for the salubrity of its atmosphere and the beauty and extent of its rose gardens. *Chunarghur*, a strong fortress on the right bank of the Ganges, 18 miles S.W. of Benares, was formerly the key of the British frontier on this side, but is now of less importance. It is built on a steep rock, which rises abruptly from the plain, and projects into the river. *Cannore* or *Kanpur*, a town on the right bank of the Ganges, with extensive military cantonments, occupying a space nearly six miles in length. At the distance of a few miles is *Bithore*, the place of confinement for the deposed Peishwah of the Mahrattas. *Punnah*, the capital of the diamond district in Bundelcund, a large town situated in a barren rocky plain. It has several handsome temples, in one of which is an idol with a diamond eye of great brilliancy and of immense value. The principal places are now at *Sukareah*, a village 12 miles from Punnah.

Bareilly, the chief place of Rohilcund, is a flourishing town of 70,000 inhabitants, of whom two-thirds are Hindoos and one-third Moslem, noted for their cutlery, brass, and cabinet work, fine carpeting, embroidery, and jewellery. The civil and military servants of the East India Company reside in cantonments to the south of the town, protected by a kind of citadel built in 1816, and strong enough to resist any attack from the natives. *Farrukabad*, near the west bank of the Ganges, is a flourishing town with a population of 70,000. Three miles distant, close on the Ganges, is the British cantonment of *Futtehghur*. *Cannore* or *Kanoge*, an ancient capital of Hindostan in the Doab, two miles from the Ganges, consists at present of a single street, but is surrounded with ruins for many miles; 217 miles E. by S. of Agra. *Muttra*, a large and remarkable city on the right bank of the Jumna, 30 miles N.N.W. of Agra, is much revered by the Hindoos for its antiquity, and its connection with many of their legends; more particularly as the birth-place of the demi-god Krishna. *Meerut*, 32 miles N.E. of Delhi, is a town of some antiquity, and now the principal military station of the British troops in this part of India. It stands in a wide dry plain, and has a church with a high and elegant spire, capable of holding 3000 people. *Sirdhana*, 14 miles N.N.W. of Meerut, was lately the capital of a small principality belonging to the Begum Sumroo, the widow of an adventurer named Sumroo or Sommers, who acquired a gift of it from Najif Khan, and died in 1776. It contains about 40,000 inhabitants, of whom 600 are native Christians. The Begum (Lady), who died in December 1835, was a devout Catholic; she built an elegant church in the city, and endowed it with a lac of rupees, (£10,000); and also erected and maintained at Meerut a Catholic chapel, for the benefit of the British Catholic soldiers. At her death the territory reverted to the East India Company. *Panipat*, 50 miles N. by W. of Delhi, a large commercial town, built of brick on a rising ground in the midst of a very extensive plain, is famous as the scene of two of the greatest and most important battles ever fought in India: the first A.D. 1525, in which Ibrahim Lodi, the last Patan king of Delhi, was defeated and slain by Sultan Baber, the founder of the Mogul empire; the second in 1761, in which Ahmed Shah Abdallee, the first king of Cabul, defeated the Mahrattas, and broke their power. *Kurnaul*, an important military station, 74 miles N. by W. of Delhi. *Tanasur*, *Thanesur*, or *Thunesur*, 94 miles N. by W. of Delhi, and one of the most celebrated places in Indian mythology, and was formerly filled with temples and crowded with pilgrims. The Sarisvati, or Serisvatee, or Surri-wutty river, a famous mythological stream, flows through it, and is lost in the desert, but is believed to rise again at the prayag of Allahabad, 599 miles distant. In the vicinity are the plains of *Koorhet*, famed in the Mahabarat. *Patialah* or *Putteahla*, the seat of a rajah, is a compact brick town, but thinly inhabited. *Sirhind*, a famous city of great extent, is now a mere provincial bazaar or market town. *Ferozepore*, a fortified town near the Sutlej, the capital of a small state, which lately reverted to the East India Company on the death of an old Sikh lady. It was formerly a large city, and still contains a commanding castle and keep. It has been newly surrounded with a wall and ditch; bazaars have been laid out, and shops constructed, and it is rapidly filling with settlers anxious to participate in the newly opened trade of the Indus. A fair has been established, and commerce is in a very active state. Steam vessels now ascend from the mouth of the Indus 550 miles by the Chenab and Sutlej to Ferozepore. *Loodiana* or *Lodeana*, a large military station near the Sutlej, 209 miles N.W. by N. of Delhi, has been for many years the residence of Shah Zeman and Shah Shuja, the exiled kings of Cabul, and their families, who are pensioners of the British Government. *Scheranpore* or *Saharanpore*, 92 mile N. by E. of Delhi, and 1000 feet above the level of the sea, contains a fine botanic garden belonging to the East India Company, and a school of monkeys, kept by a set of devotees called Gosseins, who have tutored their pupils, an innumerable swarm, into something like discipline. *Hardwar* or *Hanideur*, 117 miles N.E. by N. of Delhi, is a celebrated place of Hindoo pilgrimage, on the right bank of the Ganges, where it issues from the mountains. The principal object of pilgrimage is to bathe in the sacred stream; and, for the accommodation of bathers, a fine ghaut or flight of steps has been erected on the bank of the river by the British Government. A great fair is also held at the bathing season, and so many as 2,000,000 of people have been known to assemble; but the usual numbers vary from 200,000 to 300,000. The water is supposed to acquire additional sanctity every twelfth year; and the concourse of pilgrims is then always greatest.

Amnora, the capital of Kumaon, is a small town, built on the ridge of a mountain, 5400 feet above the level of the sea, in the midst of an extremely bleak and naked country. *Srinagar* or *Shrinagar*, the capital of Gurhwal, is situated in a valley on the left bank of the Alakananda, 1500 feet above the level of the sea. It was almost destroyed by an earthquake in 1805, and is in a state of decay. *Gooroodhara*, is the chief town of the *Dogra-Dhoom*, a fertile valley, 1350 feet above the level of the sea, 56 miles long and 16 miles broad, between the Jumna and the Ganges. *SIMLA*, lat. $31^{\circ} 6' N.$ long. $77^{\circ} 9' E.$, 7485 feet above the level of the sea, a new European station in Sirmoor, near the Sutlej, a small straggling town on a narrow ridge, every ledge and gentle slope of which has been eagerly pitched upon for the site

of a house. The gardens produce European fruits, and culinary vegetables, while the open country abounds with daisies, primroses, rhododendrons, oaks, firs, and dog roses. Rhubarb and ginseng are also indigenous, and immense quantities of the finest honey may be had all over the hills. The climate in summer is very fine, and makes the place appear a perfect paradise to those whose constitutions have been exhausted by the heat of the plains; but in winter it is covered with snow. *Landour* and *Mussouri* or *Massuri* or *Massouree*, are two other summer stations of the same kind as Simla, but more easily accessible. They are both situated on the hills on the north side of the Dehra or Dehra-Dhoun; Landour, at an elevation of 7559 feet, and Massouree, 6701. The houses of both are merely thatch-roofed bungalows, and there is so little flat ground that the foundations of many of them are built up with masonry against the edge of precipices; the roads are narrow, being cut along the sides of the most frightful precipices, and yet ladies gallop along them without alarm, and drunken soldiers stagger on them with impunity. Another new station has also been formed at *Sirsa*, in the Bhootea country. *Dehra* is another lovely spot lower down, situated in the valley to which it gives its name, with neat European houses, and an enchanting view from the parade ground. *Subhatoo*, the occasional residence of the political agent who superintends the petty princes of Gurhwal, is a small place, a few miles S.W. of Simla. The proper or official residence of the agent is at *Umballa*, a town on the road from Kurnaul to Loodiana.

Saugur or *Singor*, the chief town of the ceded districts on the Nerbuddah, occupies a pleasant situation, 2000 feet above the level of the sea, on the banks of a beautiful lake, which is five miles in circumference, surrounded by an amphitheatre of basaltic and sandstone hills, and abounding with a great variety of fish, and in the cold season, with teal, widgeon, wild ducks, numberless snipes, and sometimes geese. The town contains a stationary population of 50,000 inhabitants, chiefly Mahrattas. Ten miles from Saugur an elegant suspension bridge, of 200 feet span, has been erected over the river Beas. Saugur is usually garrisoned by four battalions of infantry, a company of European artillery, and a regiment of local cavalry; it has also a mint, and a large civil establishment. The station is perfectly isolated, and, except in the cold season, the British residents seldom enjoy the sight of a stranger. The climate is damp and chilly. *Hussainabad* or *Hussainabad* or *Hushungabad*, a considerable town on the left bank of the Nerbuddah, where it is 900 yards wide; but the bed of the river is much broken, and there are 13 fords across it within 14 miles of the town. *Jubbulpore* 90 miles S.E. of Saugur, is the residence of the political agent for the Saugur and Nerbuddah territory.

§ 3. The Presidency of Madras.

The authority of this presidency extends over a great part of the peninsula of India, stretching along the east coast, from the Chikka lake to Cape Comorin; and including, on the west coast, the maritime provinces of Malabar and Canara. The presidency consists of five large provinces, namely, the *Carnatic-payan-ghaut*, or Lower Carnatic; the *Carnatic-bala-ghaut*, or Upper Carnatic; the *Northern Circars*; *Malabar*; and *Canara*. The Lower Carnatic, which extends for 560 miles along the coast of Coromandel, (*Cholamandala*), and inward to the eastern ghauts, is a flat country rising very little above the level of the sea. The soil along the coast is for the most part light and sandy; inland it seems to consist of a decomposition of syenite impregnated with salt, which, in dry weather, covers the ground with a saline efflorescence. The climate is the hottest in India; but in May, June, and July, the air is cooled and the ground refreshed by frequent showers, or by torrents of rain, which sometimes flood the country. At other times vegetation is burnt up, or buried beneath the clouds of fine dust which are driven along by the hot winds from the interior. The Lower Carnatic is not remarkable either for mineral or agricultural produce. The latter consists of dhourra, betel, tobacco, dwarf cotton tree, and ragli, a small grain on which the poorer natives chiefly subsist. The Coromandel coast is low and barren; and the sea, which is extremely shallow, beats upon it with a tremendous surf and a perpetual current. The only signs of vegetation observable from sea, are thickets of low bushes, and wild nopal trees. Around Madras the ground, when well cultivated and watered, produces good crops of rice, and a pleasing verdure is maintained by the indefatigable industry of the natives; but beyond this small circle, the northern part of the Carnatic is nothing but a vast naked and dusty plain, with few villages or signs of animal life. In the southern portion, however, particularly in Tanjore, the country is highly cultivated and productive, a result to which the waters of the Cauvery, which are widely distributed by canals, most materially contribute. The delta of that river forms, indeed, one sheet of rice ground. From Cape Comorin also, through Tinnevelly and Dindigul, the scenery is magnificent and beautiful; the mountains assume every variety of form, and are clothed with stupendous forests, while the smaller hills which skirt the plain are graced with temples and choultries. Winding streams flow from every hill, and the soft and lovely valleys afford a striking contrast to the dark forests which overhang them. The *Bala-ghaut* or *Upper Carnatic*, including Mysore and the districts of Salem and Barramabal, is a lofty table-land, exceeding 3000 feet above the level of the sea; and enjoys a temperate and generally healthy climate. The force of the monsoons is broken on both sides by the Ghauts, and the rain which falls is merely sufficient to clothe the fields with perpetual verdure, and preserve an agreeable temperature. The principal products are rice, ragli, oriental sesamum, sugarcane, and the castor-oil plant; cocoa nut trees are in some places so numerous as to form forests. Some parts of the Coimbatore district are, however, only 500 feet above the level of the sea, while other parts rise prodigiously, as the *Nilcherries*, which are the loftiest mountains to the south of the Himalayas. These form a mountain tract 42 miles N.E. and S.W. and 14 broad, with a general elevation of about 5000 feet. No part of the surface can be called table-land; it is interspersed with hills and valleys, generally susceptible of cultivation. The higher parts are sometimes visited by frost even in summer, and in winter they are covered with snow. Lower down there is fine pasture, and the wild fruits of Europe are found in abundance. Some of the deeper valleys are narrow and marshy; every valley has its running stream, and several of these streams meet and form a lake, six miles in circuit, now surrounded by a good carriage road, which affords one of the most delightful drives to be met with in India. The climate is of every variety. That of the higher districts resembles the climate of the intertropical tablelands of America; but is never subject, like them, to the sudden changes and cold piercing winds, which descend from their snow-capped mountains. Spring reigns throughout the year; yet, though there is no winter, the heat is never sufficient to bring to perfection the more delicate European fruits. The lower valleys, however, enjoy the climate of Italy. Game is abundant. These valleys are inhabited by several tribes quite distinct from each other, and from the people of the plains. These hills were discovered in 1818, by two English sportsmen. From Coimbatore the passage into Malabar is through a funnel-shaped pass 7 miles wide at the east, and 16 at the west, and 31 miles long, which affords a free course to the N.E. and S.W. winds. To the S.W. of Mysore is the extremely rugged hill country of *Coorg* or *Koorg*, called also *Codagu male* or *Somnath*, containing 2165 square miles, and recently the territory of a sovereign prince, who has now been deposed. Coorg is a woody district, healthy and fertile; interspersed with highly cultivated valleys, the rice of which is proverbial for its size and whiteness. *Malabar* and *Canara* form together a very narrow strip between the western Ghauts and the sea, but extending above 300 miles along shore. A great portion of Malabar is comparatively low, but it is intersected with narrow ravines, covered with forests and jungle, and watered by innumerable streams. Part of the province consists of small low hills, with steep sides formed into terraces for cultivation. The interjacent valleys are extremely fertile, and support a numerous population. In some places a sandy plain three miles wide runs along shore, rising into downs covered with cocoa-nut trees, and

farther inland, producing excellent rice. The coast is indented with numerous inlets. In every stream and river, and also in the sand along the sea shore of South Malabar, near the mouths of the rivers, gold is found; and on some of the mountains there are mines from which this precious metal is extracted. The quantity collected annually is about 750 ounces. The chief vegetable produce is black pepper, cocoa-nuts, cardamums, teak, and sandal wood. Canara, which lies to the north of Malabar, has a broken and rugged surface, and the Ghauts in some places approach quite close to the shore. It is for the most part well cultivated, and produces considerable quantities of rice, betel nut, black pepper, cardamums, and plantains. On the high grounds red gravel prevails; near the coast the soil is sandy; but the valleys are well adapted for rice. The *Northern Circars* extend about 470 miles along the coast of the Bay of Bengal, from Mutpalli, south of the Kistnah river, to the Chilka lake. They are separated from Hyderabad by a range of small detached hills, extending between the Kistnah and the Godavery; and from Berar by a continuous ridge of mountains which is nearly impassable for horses or wheeled carriages. The northern border is formed by a continuation of the same range, which, in Goomsur, bends to the eastward, and, with the Chilka lake, forms a barrier of 50 miles in length. Here the hilly districts of Goomsur form a beautiful table-land, of great elevation, with a delightful climate, which is healthy throughout the year. The river Gundezama forms the southern boundary, separating the Circars from Ongole and the Lower Carnatic. The superficial area is about 18,800 square miles. The coast, viewed from seaward, appears mountainous to the beach; but has, nevertheless, along its whole extent, a sandy waste about 3 miles broad, beyond which the land rises into detached hills, which cover the country to the frontiers of Hyderabad. The province receives its name from the circumstance of its comprehending five *circars* or districts north of the Carnatic. Four of these were acquired by Lord Clive, by grant from the Great Mogul in 1765; but the fifth was not acquired till 1788. The province is now divided into the five collectorships or districts of *Ganjam*, *Vizagapatam*, *Rajmundry*, *Masulipatam*, and *Guntoor*. The following is a list of the principal towns in the presidency, with their distances from Madras:—

Adoni or Ad- wany, . . . 270 N.W. by W.	Elloor, . . . 260 N. by E.	Pondicherry, . . . 85 S. by W.
Alvar-Tinne- velly, . . . 350 S.S.W.	Gaingondaun, 343 S.W. by S.	Poodocotah, . . . 210 S.W. by S.
Arcot, . . . 65 W. by S.	Ganjam, . . . 530 N.E. by N.	Porto-Novo, . . . 116 S.
Attour, . . . 152 S.W.	Ginjee, . . . 85 S.W.	Pulicat, . . . 25 N.
Bailary, . . . 265 N.N.W.	Girsupah, . . . 380 W. by N.	Rachur, . . . 200 N. by E.
Bangalore, . . . 180 W.	Goomsurgurh, 535 N.E. by N.	Rajamundry, . . . 295 N.N.E.
Barcelore, . . . 368 W. by N.	Gooty, . . . 225 N.W.	Ramnad, . . . 270 S.S.W.
Batticolah, . . . 380 W. by N.	Guntoor, . . . 220 N.	Repalle, . . . 200 N. by E.
Bednore, . . . 360 W. by N.	Honauwur, . . . 390 W. by N.	Sadras, . . . 40 S.
Bellamcontah, 210 N. by W.	Hunsoor, . . . 390 W. by N.	St. Thomas' Mount, . . . 8 S.W.
Bimlipatam, 395 N.E. by N.	Kivalur, . . . 165 S. by W.	Salem, . . . 175 S.W. by W.
Bobbily or Bobi- lee, . . . 420 N.N.E.	Kotagheri, . . . 260 W.S.W.	Salour, . . . 400 N.N.E.
Brehmadasum, 356 S.S.W.	Kurnool, . . . 245 N.W.	Satenapalli, . . . 230 N.
Calcaud, . . . 370 S.S.W.	Madura, . . . 270 S.W. by W.	Satimungalum, 230 W.S.W.
Calicut, . . . 324 W.S.W.	Mahabalipuram, 34 S.	Seringapatam, 242 W. by S.
Cananore, . . . 350 W. by S.	Mahé, . . . 330 W.S.W.	Shairmadavy, . . . 356 S.W. by S.
Cauveryporam, 186 S.W. by W.	Manargoody, . . . 177 S.S.W.	Shevagunga, . . . 250 S.W. by S.
Cherpoolcherry 300 S.W. by W.	Mangalore, . . . 360 W.	Sidhout, . . . 130 N.W.
Chikalurpadu, 200 N.	Masulipatam, 190 E.S.E.	Soonda, . . . 387 W.N.W.
Chitteldroog, 270 W. by N.	Mercara, . . . 320 W. by S.	Streygondum, 350 S.S.W.
Cicacole, . . . 430 N.E. by N.	Mutpalli, . . . 190 N.	Tanjore, . . . 175 S.S.W.
Chingleput, . . . 35 S.W.	Munahpaud, . . . 360 S.S.W.	Tellicherry, . . . 330 W. by S.
Coimbatoor, . . . 265 S.W. by W.	Mysore, . . . 246 W. by S.	Thenkaushée, 350 S.W. by S.
Colar, . . . 140 W.	Nagulidny, . . . 270 N.W. by W.	Tinnevelly, . . . 350 S.W. by W.
Combacanum, 160 S.S.W.	Naitravutty, . . . 360 W.	Tiruvalur, . . . 165 S. by W.
Condapilla, . . . 250 N.	Negapatam, . . . 150 S.	Tranquebar, . . . 160 S. by W.
Conjeveram, . . . 42 S.W.	Nellore, . . . 102 N. by W.	Trichindoor, . . . 350 S.S.W.
Coringa, . . . 285 N.N.E.	Nizampatnam, 200 N.	Trichinopoly, 190 S.W.
Cranganore, . . . 300 S.W.	Nugur, . . . 360 W. by N.	Tuticorin, . . . 330 S.S.W.
Cuddalore, . . . 100 S.	Nundidroog, . . . 174 W. by N.	Vellore, . . . 80 W. by S.
Cuddapah, . . . 135 N.W.	Nuttam, . . . 235 S.W.	Vinneonda, . . . 210 N. by W.
Danaikencontah 240 W.S.W.	Onore, . . . 390 W. by N.	Vizagapatam, . . . 375 N.E. by N.
Darapooram, . . . 250 S.W.	Ootacamund, 270 S.W.	Vizanagur, . . . 520 N.E. by N.
Dindigul, . . . 240 S.W. by S.	Palamcottah, 350 S.W. by S.	Vizianagram, . . . 400 N.E. by N.
Doopaud, . . . 210 N.N.W.	Penang or Po- nany, . . . 330 S.W. by W.	Wallajahabad, 37 S.W.
	Periapatam, . . . 280 W. by S.	Wandiwash, . . . 60 S.W.

MADRAS, the capital of the presidency, is situate on the coast of Coromandel, in the Lower Carnatic, in 13° 6' N. lat., and 80° 25' E. long, 1030 miles travelling distance S.W. of Calcutta, and 770 S.E. of Bombay. The principal part of the city is Fort St. George, which is handsome and strong, and requires for its defence only a moderate garrison. It stands on commanding ground, and may be easily relieved by sea. In the middle stands the original fort, now converted into government offices, the governor's house, and the exchange. The Europeans, however, reside entirely in their garden-houses in the vicinity, repairing to the fort in the morning for business. The pettah or black town, is somewhat less than half a mile north of the fort, from which it is separated by an esplanade; it is very extensive, but in general meanly built, and dirty. There are in it, however, many fine houses belonging to merchants and shopkeepers, and many streets of neat small houses occupied by Portuguese, Armenians, and half-castes, or by such of the native merchants and clerks as have acquired European habits. A census in 1827 gave only 27,000 houses; but, including all the neighbouring villages, the population is estimated at 420,000, of whom 5-10ths are Hindoos, 3-10ths Moslems, and 2-10ths Anglo-Indians, Europeans, and Armenians. Madras trades with Europe, America, the Asiatic islands, China, Birmah, Calcutta, and Ceylon. The principal articles of import are rice and other grain, chiefly from Bengal; cotton-piece-goods, iron, copper, spelter, and other British manufactures; raw silk from Bengal and China; betel-nut or areca, gold-dust, tin, and pepper, from Malaysia; rice and pepper from Malabar; and teak-wood from Pegu. The exports consist of plain and printed cottons, &c. Madras has no harbour; but large ships moor in the road, in from seven to nine fathoms water, two miles from the shore, and goods and passengers are shipped or landed by means of massuliah boats, which, being light, buoyant, and elastic, carry them safely through the tremendous surf which always beats upon the coast, and in which no European boat could live. From October till January is considered the most unsafe season of the year for shipping, in consequence of the prevalence of storms and typhoons. In the fort there is a light-house, 90 feet above the level of the sea, which may be seen from the deck of a large ship 17 miles distant, or from the mast-head at the distance of 26 miles. The principal artillery station of the presidency is at *St. Thomas's Mount*, 8 miles S.W.; the cantonment consists of good houses, built at the base of a hill, with a fort at the top and a Catholic chapel, to which, on certain days, the Catholics of the vicinity resort in great numbers.

Arcot, the capital of the Carnatic when it was a soubah of the Mogul empire, and the residence of the Soubahdar, commonly called the Nabob of Arcot, consists of a fort surrounded by a large town, on the banks of the river *Palar*. *Vellore* is a fine fortress partly of European, and partly of native construction; but is not of much value as a military position, being commanded by the adjacent hills. It is used as a kind of state prison, and as such is tolerably secure, being surrounded by a wet ditch which abounds with alligators of great strength and ferocity. *Tripetty*, 52 miles N. of Arcot, in a secluded hollow surrounded by mountains, contains the temple of *Vencata-Rama*, an avatar of *Vishnu*; whose shrine is considered too holy even to be looked on by a Moslem or a Christian. *Kurnool*, on the *Tungabudra*, the capital of a petty state, the Nabob of which has been recently deposed, and his state confiscated, for a rebellious plot. *Nunddroog*, a celebrated fortress, fast falling to decay, on a hill 1700 feet high, and almost inaccessible, is only noted now for the growth of potatoes, and for the manufacture of a very fine kind of soft white sugar. *Bangalore* is a town in Mysore 2900 feet above Madras, in a very temperate climate, where the thermometer seldom rises above 80°, and where the eypress and the vine grow luxuriantly. It contains a large proportion of good sized houses, built of red earth covered with tiles, carries on an extensive commerce, and contains about 60,000 inhabitants. The fort is still a strong position; the cantonment, about three miles distant, generally contains four or five regiments of native infantry, two Queen's regiments, with Company's artillery, and numerous civilians, forming altogether a large society. At a little distance is the *Wynaad Jungle*, which contains many wild elephants. *Seringapatam*, a fortified city upon an island in the *Cauvery*, formerly the capital of the kingdom founded during last century by *Hyder-Ali*, and which terminated with the death of his son and successor *Tippoo Saib*, who perished at the storming of *Seringapatam* by the British forces, 4th May 1799. Population about 30,000. The place, however, is so unhealthy that the garrison has been removed to a plain seven miles off, called the *French Rocks*, where the atmosphere is more salubrious. At *Mulurelly*, 25 miles E., and *Svedapore*, 54 miles W. of *Seringapatam*, *Tippoo* was defeated by the advancing British armies in 1799. *Hunsoor*, about 30 miles N.W. of *Seringapatam*, was originally merely a depot for the cattle bred for the transport of ordnance and army stores; but of late the preparation and manufacture of tanned and buff leather have been introduced, and have so rapidly improved that the town is now able to supply every sort of leather equipments as good as those from England at half the price. All sorts of work in brass, iron, copper, and wood, are also neatly executed, sufficient in every respect for the Madras army. *Hunsoor* has so many advantages that at the shortest notice it can supply all the requisites for an army of 50,000 men. It enjoys a fine climate, and in no part of the presidency are the gardens of flowers, fruit, and vegetables, so beautiful and so productive. *Saravana-betguda*, a village wholly inhabited by *Jains*, 36 miles N. by W. of *Seringapatam*, is noted as the principal seat of the *Jain* worship in the south of India. It contains a colossal statue 70 feet high, apparently formed by cutting away the rock of which it consists. *Ootacamund*, a town or village in the *Nilgherries*, 6416 feet above the level of the sea, is a great resort for valetudinarians. The temperature near the town is never so high as that of an English summer, nor so low as that of an English winter. A register kept for four years showed a variation from 36° to 70° Fahrenheit, but in nineteen days out of twenty the variation was from 42° to 65°. The average fall of rain has been found to be 45 inches in the year, more than double the quantity which falls at London. *Wallajahabad* contains extensive military cantonments. *Cuddalore* is one of the great stations for soldiers who wish to remain in India after having served out their time, or having become invalids. *Tanjore*, the capital of a *rajah*, contains the finest pyramidal temple in India, in the precincts of which is the figure of a bull in black marble, finely sculptured. *Combacorum*, in *Tanjore*, contains 40,000 inhabitants, and is distinguished for its sanctity; near it, in the midst of a richly cultivated country, is a sacred pond, which once in twelve years is filled with the waters of the *Ganges*, which are supposed to travel so great a distance under ground, and to have the quality of washing away the sins of those who bathe in them. It is in consequence resorted to on these occasions by multitudes of pilgrims. *Porto-Novo*, on the coast of the Carnatic, contains flourishing iron-works which supply steel and steel-ware of excellent quality at a very low price. *Mahabalipuram* or the *Seven Pagodas*, near *Sadras*, a collection of extraordinary ruins, consisting of temples cut from the solid rock, and covered with sculptures, which are said to mark the site of a great city now partly covered by the sea. *Chillamburam* or *Chilamburam*, 9 miles S.W. of *Porto-Novo*, contains several celebrated pagodas, the principal of which is an exquisite specimen of Hindoo architecture; and at *Trivernay*, 15 miles W. by N. of *Pondicherry*, is a magnificent pagoda, with a stupendous stone tower rising over its gate. In its vicinity are found the most extraordinary petrifications. Near *Trichinopoly*, in the *Cauvery*, is the island of *Seringham*, also celebrated for its pagodas. This part of the peninsula is indeed renowned for its temples and ruins. *Trichinopoly*, on the *Cauvery*, is a strongly fortified city with 80,000 inhabitants; is very salubrious, and garrisoned by five or six regiments. *Chettidroog* is a hill fort of such amazing strength as to be reckoned impregnable; but it has become so unhealthy that it has been found necessary to abandon it. *Calicut*, in *Malabar*, the residence of a prince styled the *Zamorin*, the first place in India where *Vasco da Gama* touched after his successful voyage round the Cape of Good Hope in 1498. It contains about 30,000 inhabitants. *Cananore*, a large town with a strong fortress, the principal military establishment on the coast of *Malabar*. *Mangalore*, a flourishing sea-port town in *Canara*, with 30,000 inhabitants. *Onore* or *Umatuvar*, a sea-port town at the entrance of an estuary or large lake which reaches almost to the Ghauts, and in the dry season is salt. It is the estuary of a river which has a tremendous fall of 812 feet near *Gersupah*. It was at *Onore* that *Hyder Ali* built docks, and established a naval arsenal, which were subsequently destroyed. *Masulipatam*, in the Northern Circars, a square fort in the midst of a salt morass, with a large *pettah* or native town, a mile and a half N.W., communicating with the fort by a causeway 6000 feet in length, is a place of considerable trade, and also of some military importance. It stands on a semicircular bay which affords tolerable shelter from all winds but the south-east. *Coringa*, a populous town on the coast of a large manufacturing district in the Northern Circars, near the mouth of the *Godavery*. The bay of *Coringa* affords excellent shelter for ships, and is said to be the only place on the east coast of India where a vessel of any burden can be refted with safety.

§ 4. Presidency of Bombay.

The authority of this presidency extends over a considerable stretch of territory of the most irregular outline, with several detached parcels in the old Mogul provinces of *Arungabad*, *Bejjapore*, *Khandeish*, and *Gujrat*; comprising altogether an area of 64,538 square miles. The principal part of the territory stretches along the west coast of the peninsula, from near *Goa* to the mouth of the *Nerbuddah*, 420 miles. It is divided into thirteen collectorates, namely, *Bombay*, *Poonah*, *Ahmednuggur*, *Khandeish*, *Dharwar*, *South Jagheerdars*, *Satara Jagheerdars*, *South Concan*, *North Concan*, *Sarat*, *Broach*, *Ahmedabad*, and *Kairah*. The last four are situate in *Gujrat*, along the Gulf of *Cambay*; *Poonah*, *Ahmednuggur*, *Dharwar*, and the *Jagheerdars*, are situate in the table-land of the *Deccan*; *Bombay* and the two *Concans* below the Ghauts, along the sea-coast. The *Concan* or *Konkan*, is a long narrow tract, a continuation of *Malabar* and *Canara*, intersected by numerous rivulets flowing westward from the mountains, and indented with small bays and shallow harbours or coves. It presents a series of steep rocky mountains, rising abruptly like a wall, and affording scarcely any practicable access to the table-land for wheel-carriages. The districts of *Poonah* and *Ahmednuggur*

in the *Deccan*, are elevated 2000 feet above the level of the sea; and are intersected by rivers and streams flowing through the most beautiful valleys, overtopped by trap hills, many of which are crowned with castles of a highly picturesque appearance. Some parts of the country are exceedingly fertile; but, in general, owing to the mountainous and rocky nature of the surface, the district is very barren. In the districts of *Dharwar*, *Satarah*, and the *Jagheerdars*, the country near the Ghauts is extremely rugged; but the eastern portions are less so, and contain level tracts, where the rocks, which in some places stud the surface, are buried in a rich black mould. The Ghauts along the western border are not so much broken into masses as in some other places, but present continuous lines of mountain forests; and, along the banks of the rivers, the country is exceedingly rich and picturesque. At Poonah the annual fall of rain is only 25 inches, while at Bombay it is 100. Dews, however, are very copious, but fogs are little known. The climate is salubrious; there are two harvests, one during the hot and wet season, consisting principally of rice, the other during the cold or dry season. The rivers, during the monsoons, are magnificent streams; but in the dry season, their beds are often only sandy plains, with a mere thread of water. *Khandeish* is an extensive, fertile, well-watered plain, interspersed with low barren hills, at the base of which run numerous limpid rivulets which find their way to the Tuptee. Great part of the district is still covered with jungle. *Gujrat*, when a province of the Mogul empire, comprised a large extent of country along the eastern and northern shores of the Gulf of Cambay, with the whole peninsula of Kattiwar; but the name is now understood to comprise only the districts on both sides of the gulf which are dependent on the civil jurisdictions of Ahmedabad, Kairah, Baroda, Broach, and Surat; the remainder being distinguished as Kattiwar, which is under separate authority. In this restricted sense *Gujrat* is, generally speaking, a dead level, through which the mountain torrents of Rajpootana, *Khandeish*, and *Malwah* have cut their channels. The soil in most places consists of a loose, rich, alluvial deposit, in others of a deep sandy and mixed soil, resting on a calcareous formation, similar to that of Bengal and Bahar, and termed by the natives *Kankars*. The *Nerbuddiah* and the *Tuptee* are the only rivers properly so called; for the *Subernatti* and the *Mbye* are merely great water-courses, which are almost completely dried up within three or four months after the rains. The climate is reckoned one of the worst in India, being intensely hot during the greater part of the year, with a heavy thick atmosphere, which few people can endure. During December, January, and February, the mornings and evenings are cold, and the rest of the day temperate and pleasant; the thermometer is then often under 60°, sometimes considerably lower, and at noon seldom exceeds 70°. But during the hot winds, in the ensuing months, it rises from 70° to 100°; and in the plains of Canbay it has been seen at 116° in the soldiers tents. (*Forbes' Oriental Mem.* III. 215.) The soil is particularly fertile; several sorts of grain may be seen growing in the same field. The Parsees are numerous, and form the most respectable part of the population of *Gujrat*.

BOMBAY, the capital of the presidency, is situate on a small, rocky, barren, and once peninsular island, on the north-west side of the entrance to the bay, in 18° 56' N. lat., and 72° 57' E. long. The city is built on the south-east side of the island, and is surrounded by walls about two miles in circuit, which are mounted on the sea side by formidable batteries. The houses are picturesque, but inconveniently crowded together; they are very lofty, and generally built in the Portuguese style. Three sides of the walls are washed by the sea; on the fourth is the esplanade, and beyond it the Black town, spreading out amidst a wood of cocoa nut trees, a curious, busy, bustling, and dirty place; and, still farther off, the cocoa nut gardens are studded with villas. Those who are obliged by business or duty to remain near the government house in the fort, live in town only during the rainy season; at other times they live in bungalows, or huts and tents on the esplanade, where they enjoy the benefit of the sea breeze. The population amounts to about 240,000, who occupy 20,756 houses, grouped into the several towns, called *Bombay Castle*, *Dungaree*, *Mahim*, *Byculah*, and *Colabah*. Including English and Portuguese, there are no less than nineteen languages spoken in the island; a circumstance which proves the heterogeneous character of the population. Of the native community a large number are Parsees or Persians, who, driven from Persia in the eighth century, took refuge in *Gujrat*, and have now established themselves in Bombay. The greater part of the wealth of the place is in their hands. The Jews are more numerous, and a more respectable class than is to be found in any other part of India; they make good soldiers, and are found in considerable numbers in the ranks of the army. The markets are well supplied; and water is furnished from large cisterns or tanks, where it is collected during the rains. It is not considered wholesome; and a singular disease is ascribed to the use of it. An insect or worm appears on the body in a large vesicle or bag, sometimes as large as a hen's egg; when the bag is opened, the end of a worm, like a white thread, is seen in the midst of a gelatinous fluid. To remove the disease the end of the worm is seized, and gradually wound on a dossil of cotton wool, a few turns being taken daily till the whole is extracted. It is sometimes several feet long, and occasions great pain. Bombay is the only principal settlement in India, where the rise of the tides is sufficient to permit the construction of docks on a large scale. The highest spring tides rise 17 feet; but the usual height is only 14. The docks and dockyards are capacious, and are entirely occupied by Parsees, who are complete masters of the art of ship-building, and construct vessels of the largest class. Bombay is the great entrepot for the trade of the Red Sea, the east coast of Africa, Arabia, the Persian Gulf, Indian archipelago, and China. European and American vessels find cargoes here from the greater part of India, consisting of drugs, spices, arrack, shawls, carnulians, agates, cotton-wool, &c. Many fine ships are owned by Parsees and other native merchants. The island is composed of two unequal ranges of whinstone, with an intervening valley about three miles in width; it has been converted from an unwholesome swamp into a very salubrious residence; is traversed by five roads and connected by a causeway with Salsette, a great portion of which is now under cultivation. The principal objects of curiosity near Bombay are the caves of *Kenery*, in Salsette, and *Elephanta*, on a small island in the bay, six miles E. S. E. of the town; the latter containing a remarkable three-headed figure of Siva and his wife.—(*See Journal R. As. Soc.* V. 81.)

SURAT or SOORUT, a very large city, with 600,000 inhabitants, on the right bank of the Tuptee, 20 miles from the sea, is the station of a considerable military force, of a collector, of a board of customs, a circuit court, and the Sudder-Adawlut, or supreme court of the presidency. It is nevertheless falling rapidly to decay, in consequence of its trade having been diverted to Bombay; and in April 1837 many thousand houses were destroyed by fire. The most remarkable object in Surat is the pinjra-pol, an hospital for sick, aged, and maimed animals, supported by the Banians. Even rats, mice, and insect vermin of all kinds, are not only tolerated, but fed. Surat and its neighbourhood are thronged with religious devotees, as *takirs*, *jogies*, and *gossains*; and at *Pulparrah*, on the Tuptee, six miles distant, is a holy place, abounding with altars, temples, and sacred trees. *Baroche* or *Beroach*, *Beroath* or *Broadsh*, a poor dilapidated town, 25 miles from the sea, on the left bank of the *Nerbuddiah*, which is here two miles across, even at ebb tide, but very shallow, has a considerable trade in exporting cotton to Bombay, and contains about 30,000 inhabitants. In an island 12 miles above the town, is the banyan tree which has been renowned ever since the arrival of the Portuguese, and is still flourishing. *Kairah*, a large and neat town, surrounded by a lofty wall, at the confluence of the small rivers *Wartuk* and *Serry*, 30 miles north of Cambay. There is a large military cantonment, a mile and a half from the town, which is extremely unhealthy. *Gundiel*, *Monsera*, and *Balsan*, are large and populous towns, remarkable for their order and cleanliness. *Bassein*, 16 miles N. of Bombay, once a celebrated Portuguese colony, was formerly a town of considerable size, surrounded by a regular

rampart and bastions, but is now forsaken and desolate. It contains eight churches, and the ruins of several magnificent buildings; but is inhabited only by a few fishermen and shikaries. *Tannah*, a neat and flourishing town, and *Gorabunder*, a village, are both in Salsette.

POONAH or POONAH, lately the capital of the Mahratta empire, is situate in a small hollow, on the banks of the river Moota-Moolla, in a very extensive and barren plain, 2000 feet above the level of the sea, and surrounded by trap hills of singularly scarped forms, which rise from 1500 to 2000 feet higher. The city is without walls or fort, and till recently was very irregularly built and ill paved, with inferior bazaars, and ruinous streets; but it now presents a totally different appearance. Excellent streets and drains have been formed; all the nullahs (river channels) have been covered, and every part of the city made conveniently accessible. Population 70,000. Poonah contains a Sanscrit college, where grammar, logic, law, rhetoric, and astrology are taught. At the governor's bungalow, called *Dapourie*, a mile or two from Poonah, is a good botanical garden, filled with the choicest plants. *Singhur*, 10 miles S.W. of Poonah, affords a cool and salubrious retreat; but possesses no accommodation for visitors. *Kirkee* or *Kirky*, a small but pretty cantonment, is connected with Poonah by an excellent road. *Candala*, the Montpellier of Western India, is a village on the road to Panwell. *Chinchoor*, 10 miles N.W. of Poonah, is the residence of a live god, a supposed incarnation of Ganesa or Ganputty, the tutelary deity of the Mahrattas, whose revenues are about £3000 a year. *Cabi* or *Karhi*, 45 miles N.W. by W., contains a famous cave temple. *Panwell*, a small and dirty village on the east side of Bombay harbour, the landing-place for travellers from Bombay to Poonah, which are connected by a splendid road over the Ghauts. *Ahmednuggur*, 83 miles N.E. of Poonah, once a large city, and the capital of a kingdom, is now little better than a heap of ruins; it contains a strong stone fort, of an oval shape, about a mile in circuit. *Joonere* is a town and fortress of great natural strength, 48 miles N. of Poonah. *Trimbuck*, a formidable and wonderful hill fort at the source of the Godavery, measuring 10 miles round the base, and rising in a perilous steep of 600 or 700 feet. *Unkietunkie*, 130 miles N.N.E. of Poonah, is one of the most complete specimens of natural fortifications that exist. It rises on every side from 150 to 200 feet in perpendicular height, inclosing on the top a level plain a mile in circuit; the ascent is made by flights of steps cut in the rock, and secured by strong gateways. It has granaries, magazines, and armouries, all hewn in the rock, and thus setting bombardment at defiance. *Asseergurh*, a town and fortress of great strength, in a small detached territory, near the north bank of the Tuptee, 215 miles E.N.E. of Surat. The fortress is built on a rocky hill, surrounded by a precipice 80 to 100 feet in perpendicular height, and measuring 600 yards in length by 100 in breadth. *Dharwar*, the capital of the South Mahratta country, is a large military station. *Belgaum*, a strongly-fortified town, in a small isolated division of Dharwar, has a healthy climate, but the trade is stopped for six months in the year by the rains.

§ 5. Subject States.

THE KINGDOM OF HYDRABAD, belonging to his Highness the Nizam-ul-mulk, the hereditary Mogul Subahdar of the Deccan, occupies the middle portion of the table-land of the Deccan, measuring about 460 miles in its greatest extent, N.S. and E.W., and containing above 100,000 square miles. The country comprises some fine tracts of land; and, towards the north, the valley of Berar is particularly fertile. It is traversed by the Godavery and the Kistnah, with their numerous tributaries; the occupations of the people are chiefly agricultural; but the government is very indifferent, and everything is in the worst condition. The Nizam's subsidiary force consists of six battalions, disciplined and officered like the British seapoys; some of the officers have no rank but in the Nizam's service, but most of them, especially the commandants of corps, are in the service of the East India Company. The appointment to the higher ranks is in the patronage of the governor-general; but the minor appointments are generally made by the resident at Hyderabad. His proper army contains cavalry, infantry, and artillery. The infantry consists of from 12,000 to 15,000 regular troops, who may, however, be regarded as a sort of militia, being rarely employed beyond his frontier. The artillery are also under the direction of European officers, and form a very efficient body. His cavalry, generally called the irregular horse, are not equal to the infantry in order, dress, and discipline, nor have they the same proportion of European officers; most of them are Moslems, and bigoted in their attachment to ancient customs. A great part of the country is possessed by Jaghiredars, or persons who have districts assigned to them in Jaghire, who draw all the rents, and are, in short, almost the counterparts of the feudal barons of Europe during the middle ages. Only a small portion of the kingdom is governed directly by the Nizam himself. His Highness is the descendant of Nizam-ul-mulk, who, after the death of Aurungzebe, obtained possession of the Mogul conquests in the Deccan about the year 1717; but, since that time, the limits of the territory have experienced great fluctuations. His capital is Hyderabad; and the other principal towns, with their distances from the capital, are stated in the following table:—

HYDRABAD, the capital, N. at $17^{\circ} 15'$; E. long. $78^{\circ} 42'$; 380 miles E.S.E. of Bombay, and 320 N.N.W. of Madras.

Ajuntah, . . . 280 N.W. by N.	Eilgundel, . . . 85 N.N.E.	Manickdroog, . . . 170 N. by E.
Akola, . . . 270 N.N.W.	Ellichpore, . . . 280 N.W. by W.	Moodgul, . . . 160 S.W.
Anagoondy, . . . 190 S.W.	Ellora, . . . 280 N.W.	Muktul, . . . 85 S.W.
Argaum, . . . 280 N.W. by N.	Gawulgurh, . . . 290 N.W. by W.	Mulkher, . . . 85 W. by S
Assaye, . . . 260 N.W. by N.	Golconda, . . . 6 W.	Mullangoor, . . . 85 N.E.
Aurangabad, . . . 265 N.W.	Jathierabad, . . . 256 N.W. by N.	Mungahpett, . . . 148 E.N.E.
Beeder, . . . 78 N.W.	Jaulnah, . . . 240 N.W.	Omrawutty, . . . 250 N. by W.
Bhongneer, . . . 30 E.N.E.	Kulburga, . . . 110 W.	Purainda, . . . 200 W.N.W.
Chinoor, . . . 135 N.E. by N.	Kulliance, . . . 105 W.N.W.	Raichoor, . . . 110 S.W.
Davereendah, . . . 56 S.E.	Kummummett, . . . 110 E.	Ramgeer, . . . 110 N.E.
Dowlatabad, . . . 285 N.W.	Mahoor, . . . 180 N. by W.	Suggur, . . . 115 S.W. by W.
Edgeer, . . . 96 S.W.	Maiduck, . . . 53 N.N.W.	Warungul, . . . 84 N.E. by E.

Hydrabad is a large city, densely inhabited by Moslems, Patans, and Hindoos; but the first class greatly predominate, and are the most turbulent and ferocious set of ruffians within the limits of India. Riots and tumults are of almost daily occurrence, and are rarely checked without the interference of the military. The state of morals is very low; unnatural crimes are so common that they form a topic of ordinary conversation. An officer who resided a short time in the city declared that, "compared with Hyderabad, Sodom would be found innocent, and Gomorrah the perfection of purity." The lives and properties of the nobles, merchants, and bankers, would not be safe for a single day were the British troops withdrawn; the crowds of half-starved ruffians that infest the streets would plunder the city, but for the awe in which they are kept by the garrison. There are few manufactures of importance; the principal are silks interwoven with gold, called *kinkaabs*, turbans, and small ornaments. The British subsidiary force, with the Nizam's contingent, are stationed at some distance on the outside of the city, in the cantonments of *Secundrabad* and *Bolarum*. They consist of about 12,000 men, one-tenth of whom are Europeans; the whole are kept in a high state of discipline and efficiency. A fine house built in the European style, from the design of a British engineer officer, was recently erected by the Nizam for the British resident. The population is estimated at 80,000. The neighbourhood of Hyderabad is beautiful and highly diversified, meriting the character which an old

traveller gave of Italy,—"It is a paradise inhabited by devils."—(*Becan*, II. 75.) The fort of *Golconda*, 6 miles W. of the city, is the depository of the Nizam's jewels and treasures; it is strictly guarded, and no stranger is permitted to enter it; but the bankers of Hyderabad are allowed to have houses within the fort for the security of their property. It is built on a rocky ridge, and has some resemblance to the castle of Edinburgh, but the rock is not so high nor so abrupt; and at the distance of 600 yards from the fort, on a plain, are the tombs of the kings of Golconda, a dynasty who ruled over this part of India in the 16th and 17th centuries. The tombs present several splendid specimens of the Saracenic style of architecture, and consist generally of square buildings surmounted by bulbous domes, which are highly decorated. The diamond mines, for which Golconda has acquired so much repute, are not near the fort, but at the base of the Neela-moolah mountains, between the Krishna and Pennar rivers. They are now exhausted and deserted. *Ajuntah*, a village, beyond which is the celebrated *Ajuntah-ghaut* or pass, leading from the table-land down to the valley of Khandeish. It descends about 800 feet with a gentle declivity of about 1 in 25. *Argaum*, a village 40 miles S. by W. of Ellichpore, where a battle was fought in November 1803 between the British, under Colonel Wellesley (Wellington), and the forces of Scindiah and the Rajah of Berar, the latter of whom were completely defeated. *Assaye* or *Assye*, an insignificant village at the confluence of the rivers Ketnah and Juah, 50 miles E. N. E. of Aurungabad, is celebrated for a decisive victory gained by the British troops under Wellesley over the combined armies of Scindiah and the Rajah of Berar, 23d September 1803. *Aurungabad* is still a large city, though greatly fallen from its former grandeur when it enjoyed the favour of the Mogul emperor Aurungzebe, whose name it bears. It is situate in a hollow, on the banks of the Kowlah, a mountain stream which separates the city from a suburb called *Begum-poorah* (Lady's-town), the communication being preserved by two substantial bridges. Nearly half the town is in a state of decay and ruin; but the population still amounts to about 60,000. Aurungabad is the station of a British political resident, and the head-quarters of a portion of the Nizam's army, under British officers and control. The cantonments stand about a mile S. W. of the city, upon a rocky plain, which is free from the malaria by which the banks of the Kowlah are infested. Aurungabad contains the palace of Aurungzebe, and the tomb of his favourite wife Raboos Dooramee. The tomb resembles the Taj-mahal at Agra, but is built of coarser materials, with "all the defects and few of the beauties" of its model. The tomb of Aurungzebe himself is at *Kozah*, a small town 8 miles N. W. of Dowlatabad. *Beeder*, a large but decayed city, was formerly the capital of a *soubah* or province of the Mogul empire. *Dowlatabad*, the Hindoo *Deoghur*, one of the most remarkable fortresses in the Deccan, 7 miles N. W. of Aurungabad, is an isolated mass of granite, about 3,000 yards distant from the hills which stretch to the north and west, which rises 500 feet above the plain. For nearly a third of the height the rock has been scarped like a wall, and presents all round a perpendicular cliff. Above this the hill assumes a conical form, on the peak of which is the Nizam's flag-staff, and a large 24-pounder. The only access to the fortress is by a sloping passage cut in the body of the rock, and carefully secured. Strong as it is, and apparently impregnable, Dowlatabad has nevertheless been taken several times, and is now of small importance, as it does not command any road, pass, or district of country. At the foot of the rock is the pettah or town. At *Ellora*, a few miles N. W., are celebrated cave temples. *Ellichpore*, the former capital of the Mogul province of Berar. *Gawulgurh*, a fortress, 32 miles N. N. W. of Ellichpore, was stormed by the British troops under Wellesley and Stevenson, 14th December 1803. *Jauhab* or *Jahnah*, a British military station, situate in an open fertile country, on the banks of the Ketnah, with a small but strong fort. *Mahoor* is a hill fort, three miles in circumference, consisting of walls of solid masonry, with parapets and loop-holes for musketry. The town is in ruins, and would have been quite deserted had it not been a place of peculiar sanctity, in consequence of containing a temple of the goddess Bhowani, to which pilgrimages are made from every part of the Mahratta country. *Omravutty*, a large town, the chief mart of the Deccan, and the residence of several rich bankers, is three miles in circumference, and is surrounded with a stone wall.

BERAR, or the KINGDOM OF NAGPORE, is situate chiefly in Gundwana and Orissa, between the Nizam's territory on the south-west, the Northern Circars on the south-east; the ceded districts on the Nerbuddah on the north-west, and the ceded districts of Gundwana on the north-east. It extends about 330 miles from N. to S., and 300 from E. to W., and comprises about 56,000 square English miles. Berar is fertile in dry grains; peas, vetches, flax, sugar, betel, and tobacco, are also raised. The wheat is reckoned the best in India, and, with maize, forms the principal food of the people. A large proportion of the country has been brought into cultivation since it came under British control. The sovereign is the Bhoonslah rajah, recently a feudatory of the Mahratta empire, who is allowed to maintain a standing army of only 1,000 horse. The principal towns are:—

NAGPORE, the capital, N. lat. $21^{\circ} 9'$; E. long. $79^{\circ} 43'$; 60 miles W. by S. of Calcutta, 420 E. N. E. of Bombay, 570 N. by W. of Madras.

Ajmerghur, . . . 220 N.E. by E.	Dhumterry, . . . 148 E.	Pownar, . . . 44 S.W.
Amboora, . . . 35 E.	Hinghghat, . . . 59 S.S.W.	Pownee, . . . 36 S.W.
Bellood, . . . 126 E.	Konkeir, . . . 156 E. by S.	Raepore, . . . 150 E.
Bustar, . . . 240 S.W.	Kyraghur, . . . 112 E.	Ruttunpore, . . . 210 E. N. E.
Byragurh, . . . 240 E. by S.	Lanjee, . . . 85 N.E. by E.	Sanguddee, . . . 48 E. S. E.
Chandah, . . . 74 S. by E.	Pandoorna, . . . 48 N.W. by W.	Wyragur, . . . 75 S.E.
Comptah, . . . 74 N.E. by E.	Pertabghur, . . . 66 E. S. E.	

Nagpore or *Nagpoor* is a large town, rather more than 5 miles in circuit, and contains about 80,000 inhabitants. The greater part of the houses are merely mud huts, arranged along narrow winding paths; but there are also several lofty houses roofed with red or black tiles, and handsomely ornamented with stucco. The town contains two palaces, the one possessed by the Goond-rajah, the descendant of the former sovereigns of Gundwana, who has a small allowance, barely sufficient for the subsistence of his family; and the other, a new palace, inhabited by the Bhoonslah rajah, a small but beautiful building, consisting of stone walls covered with stucco, and adorned with highly carved balustrades. Nagpore has a few manufactures of silk, cotton, arms and accoutrements, and a considerable transit trade. The neighbouring country is fertile, and contains many beautiful gardens; but scorpions are abundant among them. The British residency and fort on the Seetabuldee hills, which adjoin the city, are now garrisoned only by a small detachment of infantry, relieved at stated periods from the cantonment at *Kamptee*, about 9 miles distant N. E., on the left bank of the Khakan river; which has been selected in preference to the original station near Nagpore, on account of its superior advantages. The change has proved equally beneficial to the health and to the morals of the soldiers. The force usually consists of about 6000 men. *Ramteek*, 23 miles N. E. of Nagpore, but within the British territory, is a place of great sanctity among the Hindoos, who have numerous temples all over the hills. *Chandah*, a walled town 3 miles in circumference, with a tolerably strong citadel in the centre, stands on the confines of a dense jungle, and is protected on two sides by a lake, and on the other sides by deep ravines, broken ground, and the sandy bed of a river.

The Rajahs of **SATTARAH**, **KOLAPORE**, **SAWNTWAREE** and others in the Deccan, are Mahratta princes. The first possesses a large territory in the old Mogul province of Bejapore or Visiapore, and is the descendant of Sivagee, the founder of the Mahratta empire. The rajahs were for many years

kept prisoners at Sattarah, while the government was administered by their hereditary *Peishwah*, who resided at Poonah; but, on the downfall of the latter in 1817, the sovereign was restored to his throne by the British Government, with a considerable portion of the Mahratta territory. The territories of Kolapore and Sawuntwaree are petty states; the former in the Deccan, to the south of Sattarah; the latter in the Concan, to the north of Goa. *Sattarah* is a strong hill fort, and town, 47 miles S. of Poonah. The British cantonment at Sattarah is beautifully situate in a lovely valley, which is surrounded by towering mountains. The summer retreat of the Europeans of Sattarah and Western India, is a spot on the *Mahabaleshwar hills*, 30 miles N. W. of Sattarah, computed to be 4500 feet above the level of the sea, where several pretty bungalows have been erected, also a sanitarium for invalids, and a church. The view is most extensive and magnificent, including a great part of the Concan, and the sea at the distance of 30 miles. Four miles from the sanitarium, at the village of Mahabaleshwar (*i. e.* the great and good God), are the two sources of the river Kistnah or Krishna, over whose sacred waters are placed large and curious temples, in each of which the stream, issuing from the mouth of a figure of the sacred bull Nandi, is received into a small tank, whence it flows through a beautiful and fertile valley. The climate of the hills is often cold enough to render fires necessary, and is found to be highly renovating; fogs are prevalent in autumn, but produce no unpleasant or dangerous effects. The walks and drives about the hills are numerous and beautiful. The rajah is constructing a great *bund* or dam for a tank on the hills; and other great public works, as bridges and roads, are in progress throughout his territory. From the village of *Mhar*, on the western side of the Ghauts, there is a conveyance by boats to Bombay. The hills are overlooked by *Pertabghur*, the finest fort in the Deccan, built by Sivagee, and containing a temple of great sanctity, which is visited yearly by his descendant, the rajah. The fort is now abandoned as a military station, and contains only a few seaports for the garrison, and a few Brahmins for the service of the temple. *Bejapore*, *Bijapur*, or *Visapore*, "the Palmyra of the Deccan," a large decayed city, 125 miles E. S. E. of Sattarah, is an immense mass of ruins, and of half-decayed tombs, palaces, mosques, caravansaries, and other buildings of every kind. It was formerly the capital of a powerful kingdom, ruled over by the Adil Shahce dynasty, the last of whom was subdued A. D. 1685, by the Mogul Emperor Aurungzebe, who made it the capital of one of his provinces. *Bejapore* is said to have contained 984,000 inhabited houses, and 1600 mosques. Though not so totally abandoned as some other famous cities, it contains a very scanty population, composed chiefly of Moslem priests and religious mendicants attached to the mosques, poor Mahrattas, and some very orthodox Hindoos. The walls of the citadel and principal buildings are of hewn stone. *Punderpore*, 86 miles east of Sattarah, on the right bank of the Beema, is a very prosperous and populous Mahratta town. It is a holy city, and has a temple of peculiar sanctity, to which vast numbers of pilgrims resort. There are also in the city 12 large palaces belonging to the principal Mahratta chieftains, each strongly fortified, and proof against any attack without guns. In former times these chiefs used to visit Punderpore annually, either in person or by deputy; but the concourse of ordinary pilgrims still remains undiminished.

TRAVANCORE extends along the coast of Malabar, 140 miles northward from Cape Comorin, by about 40 in breadth. The whole territory is in the highest degree picturesque and beautiful, consisting of hills, valleys, and mountains, watered by numerous streams, and covered with magnificent forests. Elephants, buffaloes, tigers, monkeys, and apes abound in the woods. The produce consists of rice, pepper, betel, cocoa nut, tobacco, cassia, maize, long nutmegs, and wild saffron. *Cochin*, a small territory, adjoins Travancore immediately to the north, and consists of a succession of narrow valleys watered by small streams, where rice is cultivated. The mountains are covered with forests, and the groves are studded with palms, jacks, mangoes, and plantains; the forests abound with teak, ironwood, blackwood, and jackwood. The chief exports are pepper, cardamums, teakwood, sandalwood, cocoa-nuts, coir, cordage, cassia, and fish maws. *Trivandrum*, the capital of Travancore, is a populous town, 60 miles N. W. of Cape Comorin. *Anjengo*, *Quilon*, *Alippee*, or *Alipelly*, or *Aulapolly*, are seaport towns on the coast northward. *Cochin*, a large town 3 or 4 miles in circumference, was formerly the capital of the Dutch possessions in India, but is now very much reduced, and contains only 10,000 inhabitants. It is situate at the mouth of a sort of river, which is entered over a dangerous bar, having 17 or 18 feet at high water of spring tides. On the outside of the bar the anchorage is good, and within, the river expands into a fine estuary, 3, 5, and 6 miles wide, 12 miles long, and deep enough for the largest ships. As a place for ship building *Cochin* is still superior to all the ports on this side of India, except Bombay. The river communicates with the *Lackwater*, a natural system of inland navigation, which extends parallel with the coast from Chowghat in Malabar to Trivandrum, a distance of about 170 or 180 miles, being sometimes only a few hundred yards, at others, 3 or 4 miles from the sea, varying in width from 12 miles to 200 yards, and in depth, from a few feet to many fathoms. Into this backwater, as a grand trunk, all the numerous rivers and streams which flow westward from the Ghauts are discharged. It communicates with the sea by six openings, the only one of which that is navigable for ships is at *Cochin*.

MYSOKE, a territory of considerable extent in the southern division of the table-land formed by the converging of the Eastern and Western Ghauts, was constituted a kingdom in 1799, in favour of the descendant of the ancient rajahs of Mysore, who had been dethroned by Hyder Ali. But his Highness having been guilty of the grossest misrule, was superseded by the British Government in 1833, and his states are now administered by officers of the Madras presidency.

SIKIM is a small principality in the hill country between Nepaul and Bhotan, containing about 4400 square miles. The chief town is *Sikim*, on the west bank of the Jamikuma river, which rises on the south side of the Himalayas, and opposite the town, separates into two branches, that flow round a large mountain, upon the top of which is a stronghold named *Tasidong*. *Darjeling* or *Dorjeling*, or *Dorjeeling*, 36 miles S. E. of Sikim, and 340 north of Calcutta, has been fixed upon for a sanitarium. It can be reached from Calcutta in four days, and steam-boats can ascend the Teesta to *Kishengunge*, which is only one day's journey from the hills.

THE KINGDOM OF OUDE is situate in the basin of the Ganges, to the north of Allahabad, and contains about 25,300 square miles, being about 250 miles in length, by 100 in breadth. The whole surface is flat, extremely fertile, well watered, and produces abundantly wheat, barley, rice, and other grain, sugar, indigo, opium, and all the richest articles used in India. The kingdom is governed by the hereditary vizier of the Mogul empire, a descendant of Saadut Khan, a private horseman in the Mogul army, who obtained the *soubah* of Oude in 1722. In 1819 the Vizier-Soubahdar, with the sanction of the British Government, assumed the sovereign title of *Padishah* or king, thereby renouncing his nominal dependence on the Mogul emperor; but the government is of the worst description, and the people are sunk in poverty and misery. *Lucknow*, the capital, is situate on the right bank of the river Goomtee, 650 miles N. W. by W. travelling distance from Calcutta. Great part of it consists of narrow dirty streets, with mean clay houses and abounds with beggars. There are, however, some fine streets, with handsome houses, and well filled bazaars; and the king's palaces, the tombs, and principal mosques, built in a highly ornamental style, display considerable splendour. Population about 600,000. *Constantia*, the residence of the late General Claud Martin, by whom it was built at the cost of about £150,000, stands in the neighbourhood. *Fyzabad*, the former capital, is situate on the right bank of the Gogra, 80 miles E. of Lucknow; and is still of considerable extent, with a numerous population. A few miles distant to the eastward, are the ruins of *Oude* or *Agodhya*, the ancient capital of the demigod Rama, situate on the banks of the Gogra, which is still resorted to by numbers of pil-

grins, who walk round the supposed sites of its temples, bathe in its sacred pools, and perform other ceremonies. Oude is said to have been built by Menu, the legislator of India, and to have been a very large and splendid city. The other principal towns are: *Beraytch, Bulrampore, Tandeh, Bisona, Khurbad, Shahabad, Roy-Bareilly, and Manickpore.*

BUNDELCUND or **BUNDELKUND** is an elevated country to the south and south-west of Allahabad, consisting of parallel ranges of mountains supporting successive table-lands. Part of it is within the immediate territory of the British Government; the remainder is divided among the petty princes of *Rewah, Sumpthar, Jhansi, Jaloun, Oorcha or Tehree, and Duttah.*

BHURTPORE is a small state to the westward of Agra, inhabited by Jauts, who originally migrated from Multan. The inhabitants are descended from a low Sudra caste, and are distinct from the Jauts, or old Moslem peasantry of the Punjab. *Bhurtpore*, 34 miles W. of Agra, was a strong fortress, which twice defied the British power. In 1805 it maintained an obstinate defence against Lord Lake; but in 1826 it was again besieged, taken by storm, and its ramparts demolished. The Rajah has another fort named *Deeg*, 22 miles W. by S. of *Muttra*.

The Rana of **DHOLPOUR**, **BARREE**, and **RAJAH KAIRAH**, acquired these possessions in 1804, in exchange for Gwalior and other hereditary estates surrendered to Scindiah and the British Government. His revenues amount to about £53,000 a-year. His ancestors were, in the beginning of last century, Zemindars of Gohud, then a petty village, but raised to a town and the capital of a principality by their warlike qualities and industry. They were afterwards tributaries of the Mahratta empire, and latterly of Scindiah. The capital is *Dholpour*, a considerable town about a mile from the left bank of the Chumbul, and 40 miles S.S.W. of Agra.

BHOPAL is a considerable territory in Malwah, or Central India, extending about 120 miles along the right bank of the Nerbuddah, and including an equal extent of the Vindhya mountains, with a portion of the table-land; altogether above 7300 square miles. The surface is very uneven, and full of jungle; but the soil is generally fertile, especially in the valleys. The dominant people are Patans, who were established here in the 17th century by Aurungzebe; the state was constituted in its present extent by the Marquis of Hastings in 1817. The principal towns are *Bhopal, Islamnuggur, a fortress 5 miles N. of Bhopal, and Ashtah.* In Malwah are also situate the small principalities of *Dhar, Dewas, Rutlaum, Salawa, Nursinghur, Amjileera, &c.* *Dhar*, an ancient city once containing 20,000 houses, but has now only about 5000, which are surrounded by a mud wall. The Rajah also possesses *Burseiah*, a town of 3000 houses, 24 miles N. of Bhopal.

HOLKAR or **HOLCAR**, one of the principal feudatories of the late Mahratta empire, whose dominion, at the beginning of the present century, extended over a large portion of Central India, is now reduced to the possession of a small territory of 4245 square miles, lying chiefly in the valley of the Nerbuddah, but extending also over the Vindhya mountains into the table-land of Malwah, the extremities being about 120 miles distant N.S. His capital is *Indore*, a small town in Malwah, 456 miles N.E. of Bombay. In 1840 an English school for native youth was established at Indore by Sir C. M. Wade, the British resident, to be supported by contributions from the sirdars (officers of government) and rich natives of the city. *Mhow*, or *Mow*, 10 miles S. of Indore, and 2019 feet above the level of the sea, is a cantonment for British troops, who have a depot for their stores in the citadel of *Jaum*, a small town 22 miles further south, at the head of a steep but much frequented ghaat, or pass, which has a descent of 1632 feet down to *Mundesir*, a small town on the Nerbuddah, with a well built fort of masonry, and a British cantonment. *Mhysir*, 8 miles W. of *Mundesir*, also on the right bank of the Nerbuddah, is a city with 3500 houses, a large fort, and several beautiful temples. *Mundatta*, 35 miles E. of *Mundesir*, and 42 S.E. of Indore, a small town on an island, which rises from the Nerbuddah in the form of a hill of moderate height, contains a pagoda dedicated to Ongkar, the phallic emblem of Mahadeva-Siva. It is one of the twelve places where the deity is considered to be peculiarly present; he is known here in the form of the mystic syllable OM. About three-quarters of a mile east is a sacrifice rock, called *Bheercallah*, from which devotees throw themselves, during the feast of *Cartic-jatra*. *Woon*, or *Wone*, a decayed town also in Holkar's territory, 27 miles S. by W. of *Mhysir*, was formerly a large city, said to have contained 99 Jain temples, of which the remains of about 20 can still be traced. *Matundoo*, the ancient capital of Malwah, situate 27 miles S.W. of *Mhow*, is now completely deserted, but still contains numerous remains of fine buildings overgrown with jungle.

The **GUICOWAR** or **KING OF BARODA**, also one of the feudatories of the Mahratta empire, possesses a large scattered territory in Gujrat, on both sides of the Gulf of Cambay, which comprises altogether about 35,000 square miles, including the peninsula of Kattiwar. The peninsula, however, does not belong to the Guicowar in absolute sovereignty; but is possessed by a great number of petty chiefs, of whom 137 were tributary to the Peishwah, and 111 to the Guicowar. The Peishwah's share of the tribute was ceded to the British Government in 1818; and these turbulent chiefs are now not only secured against external aggression, but are kept at peace among themselves by their powerful masters. They are free to exercise sovereign authority on their own estates, and are exempted from the authority of the British courts of law. The peninsula is hilly in the interior, and, being rather scantily supplied with water, is not productive of grain; but has everywhere abundance of the coarse vegetation suited to the soil. The coasts are full of creeks and inlets, which used to shelter numerous pirates, who easily escaped from cruisers, through the difficulty of the navigation. The Guicowar is the descendant of Pillajee Guicowar, the potail of a Mahratta village, who, early in the 18th century, assumed sovereign power. His capital is *Baroda*, or *Behroda*, *Brodera*, or *Brodra*, a large and populous city, with considerable trade, 240 miles N. by E. of Bombay, and about 12 miles E. from the estuary of the Mhye. The British cantonments are prettily situate two miles from the city. The other principal towns are: *Cambay*, at the head of the Gulf to which it gives its name, an ancient and renowned city, now very much reduced; *Puttan Sidhpore*, *Rhadumpore*, *Puthanpore*, and *Dersat*, to the eastward of the Runn of Cutch; *Darraundra*, *Hulwad*, *Mallia*, *Muravee*, *Wankaneer*, *Surdham*, *Paulytanna*, *Jafferabad*, *Puttan-Somnath*, *Bilawal*, *Joonaghur*, *Kotyana*, *Poorbunder*, *Juggut*, *Bate*, *Nowanuggur*, and *Jooria*, all in the peninsula of Kattiwar. *Puttan*, situate near the right bank of the Surraswuttee river, 64 miles N.N.W. of Ahmedabad, represents the ancient *Nehrwallah* or *Anhulwara*, the capital of Western India, a great emporium of commerce, and the residence of powerful princes, styled *Balcaraes* or *Balharas*, from the 8th to the 14th century. To attest the former splendour of this great city only four architectural relics exist; everything available was carried off in the 15th century to build Ahmedabad. *Puttan* or *Puttan-Somnath*, on the southern coast of Kattiwar, contains the remains of a celebrated temple of Somnath (Lord of the Moon), once possessed of immense wealth, which was plundered by Sultan Mahmud of Ghaznee, A.D. 1025. A Mahratta princess, Ahalya-Bhai, wife of Holkar, subsequently erected near the same spot a temple to Siva, which is still visited by pilgrims. The remains of the ancient temple stand on a bold promontory, visible at the distance of 25 miles; and the town contains abundant evidence of its original character as the capital of an extensive Hindoo territory. Its walls and gates are rich in the remains of Hindoo architecture, and the magnificently chiselled shrines of Hinduism form the bases of the finest mosques. It is now entirely Mahometan, but almost an entire ruin.—(*Burnes's Jour. R. As. Soc. V. 105. Posten.*) *Paulytanna* or *Palit'hana*, is situate at the eastern base of *Satrunja*, the mount sacred to Adnath, the first of the Jain hierophants. A flight of steps cut in the rock leads to the top, through a variety of shrines, amongst which that of Adnath is the most holy.

Joonaghur, 46 miles N. by E. of Puttun-Somnath, is a large Moslem town with 16,000 inhabitants, and the capital of a Nawab. Near it is an ancient Rajpoot citadel called *Upah-kote*, a place of great historical interest, but now deserted; and a few miles E. of the town is the sacred *Mount Girnar*, a granite peak rising to the height of 2500 feet from an extensive plain. On a small flat near the summit are the walls of a fort inclosing a group of seven Jain temples of exquisite beauty, filled with idols, which give the place a peculiar sanctity. The summit consists of two peaks, the higher of which, the *Guni-dattara*, is crowned with a small white temple kept by a Gosain, to which the ascent is very difficult. Great numbers of Banians, pilgrims, devotees, and travellers daily ascend the sacred mount; and in February a religious assembly or *jattrah* is held, when thousands of people attend. Outlaws and religious devotees are the usual inhabitants of Girnar; the scenery of the mount is of great beauty, unequalled even by that of the Ghauts.—(*Postan's Western India*.) *Dwaraka*, *Dooarka*, or *Dwaricat*, near the western extremity of Kattiwar, is a small walled town with a magnificent pagoda dedicated to Krishna, which is visited by pilgrims from all parts of India. About 20 miles N. by E. of Poorbunder are the remarkable and splendid ruins of the ancient city of *Ghumli* or *Bhumli*, formerly the capital of the Ranas of Jaitwar, whose territory comprises that part of the coast within 30 miles of Poorbunder. (*Jour. R. As. Soc.* V. 73.)

CUTCH or KACHH is a long narrow peninsula between the gulf of Cutch and the Runn, 165 miles in length, and varying in breadth from 15 to 52 miles. Through the middle, from east to west, stretches a range of hills called *Lunkhi-Jubburt*, from 1 to 8 miles in breadth, forming a mass of volcanic rock, destitute of wood, soil, and water, except during the rains, when numerous torrents pour down its sides. North of the Lunkhi is another range running parallel, and nearly mixing with it; the valley between the two ranges, and the plain between the Lunkhi and the sea, from 2 to 3 miles broad, interspersed with detached hills, form the arable part of the province. Close to the sea-beach is a high bank of sand, called *chigo*, which extends from the Indus to the gulf, and makes the country appear lower than the sea. Along the north side of Cutch, a tract of land, called the *Bhunni* or *Bunnee*, 40 miles long, and in few places less than 7 wide, and nearly separated from the rest of the province by an arm of the Runn, produces most luxuriant pasturage. The eastern part of Cutch is also a sort of peninsula, called *Wagur*. To the north of the Bhunni are two large islands, named *Puchum* and *Khureer*; and further east, the large island of *Sauntulpoor* so nearly occupies the neck of the Runn as to leave only two narrow straits between Cutch and the mainland. Nearly in the centre of Cutch is a conical hill called *Nunow*, well known to navigators, who distinguish it at sea by the name of *Chigo*; and a little to the east and north of Nunow is *Warra*, a remarkable hill, quite flat on the top, and with its edge so evenly defined as not to have a notch observable. Cutch consists mostly of secondary formations, such as laminated shales, a series of sandstones and shales inclosing beds of iron ore and coal, sometimes tolerably good, but generally very impure. The latter series forms the central and principal part of the province, where it rises into hills. The iron ore is smelted by the natives to some extent near the town of *Doodge*. In the southern part of the province is a range of hills composed entirely of basalt and other volcanic matter; traces of volcanic influence occur besides in different places, and the country suffers occasionally from violent earthquakes, one of which, in 1819, buried the town of *Sindree*, formed a large lake on the Koree or eastern branch of the Indus, raised a great embankment across its channel, which is now called the *Ullah-bund* (God's dam), and destroyed 1500 houses in the town of Anjar, and 7000 in Bhooj. The hills seem to have recently cooled from a state of fusion, the masses of rock are black and bare, thrown together in wild and chaotic forms, in many parts presenting large chasms, down which, during the monsoon, rapid torrents sweep into the plains, irrigating the valleys, which are covered with stunted brushwood, and afford good pasture for numerous flocks of sheep and goats. The vegetation, however, fails with the rains, and a soft sandy soil is again the principal feature of this sterile land. A few fields in the vicinity of the villages are cultivated; but the rest of the country presents nothing but a rocky and sandy waste, in many places scarcely relieved by a show of feeble vegetation, which consists of a stunted, thorny sort of brushwood, and a singular species of bramble called the *khete*. Water is scarce and is often brackish. The rains are usually slight; and the climate may be considered healthy, though at the close of the rainy season fever is prevalent, and, during the cold season, rheumatism. For nine months in the year the atmosphere is temperate and agreeable; in the hot months the temperature is high, and the weather stormy; in winter the cold is frequently intense, and ice is very commonly found on water placed in vessels which are exposed to the air during night. The produce of the land under cultivation is not sufficient to support the scanty population, so that Cutch, even in the best seasons, is dependent on Sind for supplies of grain. But this deficiency of vegetable food is amply compensated by the abundance of animals. Perhaps no country of equal size so teems with animal life as the whole province, which literally abounds with game and wild beasts. Cutch is famous for a breed of horses, of very singular appearance, having a dip in the back, which looks as if the piece had been cut away. The wild ass, which is peculiar to the Runn and its borders, is singularly marked, and stands about 13 hands high; it is of a light fawn colour, with a broad dun stripe down the middle of the back, and is a handsome and well-shaped animal. The wild ass delights in the salt vegetation of the Runn, and is sometimes seen in herds of 60 or 70, but is so fleet as to defy pursuit; it is, however, taken in pitfalls, and the flesh is considered a delicacy by the Moslems, while it is abhorred by the Hindoos, who, on the contrary, eat the hog, which the Moslems hold in abhorrence. There are also great numbers of pea-fowl, which the Hindoos deem sacred. The moisture of the Runn is exceedingly conducive to the production of insects; mosquitoes are seen in thick clouds; and, during the monsoon, the people of the Bhunni are obliged to quit their houses, and seek refuge in Cutch from the swarms of flies. The inhabitants of Cutch are partly Brahminical Hindoos and partly Moslems, the numbers of both being nearly equal. The dominant class are the *Jarejahs* (see *ante*, p. 695), who hold their lands of the Rao by military tenure, and have themselves numerous retainers called *Grasias*, who owe them immediate allegiance. There is also a class of warriors called *Meyannahs*, who were originally shepherds, but have become a fierce and warlike tribe, noted as robbers and mercenaries. They are Moslems, and can muster 3000 warriors. The total population of Cutch is only about 350,000. There is now some prospect of improvement in their condition; the country is protected by a British subsidiary force; the tyranny and misrule of the Rao and his military chiefs have been completely checked, and peace prevails to foster and reward industrious habits. The mariners of Cutch are a fearless and enterprising race; and for centuries past have traded to the Red Sea, the coasts of Africa, Ceylon, and even the Chinese Sea. Their principal exports consist of cotton cloths, in return for which they receive dates, coffee, dried grapes, antimony, senna, and coloured mats from the Red Sea; elephants' teeth and rhinoceros' horns from Zanzibar. Their mailins or pilots are singularly intelligent and well informed.

Bhooj, the capital of Cutch, is a large town of 30,000 inhabitants, surrounded with a strong, well-built wall. The streets are narrow, dirty, and rendered scarcely passable by herds of sacred bulls; the Rao's palace is a large white stone building, decorated with beautiful carvings and fine fret work. The British cantonment is about a mile from the city, and half a mile N.E. is the citadel or fortress, called *Borjah*, on a hill. On 16th June 1819 both the city and the fort were nearly destroyed by an uncommonly violent earthquake. *Mandavee* or *Mindavee*, the principal sea-port, is situate on the south coast; it enjoys a considerable trade, and boat-building is carried on to some extent. On the same creek, two miles inland, are the ruins of a city called

Raipore, but supposed to have been the ancient Mandavce, which is still called Raipore in official documents. *Anjar*, a fortified town on a hill near the gulf, in the most fertile part of Cutch, was for some time the seat of the British residency, and contains a Hindoo temple, where at one time about 3000 rats were kept by an old Gosain, who summoned them to their meals three times a-day by the tinkling of a bell. At *Danodhar*, on a lofty hill, 20 miles S.W. of Bhoj, is a monastery of Kanuphties, forming a kind of brotherhood, who dispense food and shelter to all applicants, without distinction of creed, country, or caste. They possess the revenues of about 20 villages, and are reputed rich; their superior is a rajah, who is treated by the Rao with high consideration. At *Mhur*, a village west of Bhoj, is a fraternity of Kaprias, about 120 in number, governed by a rajah, who enjoys many immunities and privileges; like the Kanuphties, they are sworn to celibacy. They possess five villages, the revenues of which they devote to the charitable purpose of supplying with food all who apply. *Luckput*, or *Luckiput*, or *Lak'hpai*, is a fortress, situate on elevated ground, 39 miles from the sea, and about a mile from the left bank of the Korce, once the most easterly branch of the Indus, but now a mere tide creek or estuary. The walls, defended by numerous towers and bastions, with guns of all sorts and sizes, inclose a space about 800 yards square, of which not more than a third is occupied by houses.

RAJPOOTANA, RAJWARA, or RAJAHS'TAN, is the name of a country of indefinite extent, situate in Hindustan, mid-way between the Indus and the Ganges, and traversed diagonally by the Aravulli mountains. The dominant inhabitants are the Rajpoots, from whom it takes its name. The country, in its present dimensions, is divided among the Rajahs of *Oudeypore*, *Jyepore*, *Joudpore*, *Kotah*, *Bundi*, *Alwar* or *Uluar*, *Bicanere*, *Jeysulmere*, *Kishengurh*, *Hanswarra*, *Purtagurh*, *Dongarpore*, *Kerowly*, and *Sirohi* or *Serowly*. The territory of *Oudeypore* is also called *Mewar*, and consists chiefly of a table-land in the angle formed by the Aravulli mountains, and the hills which extend along the left bank of the Chumbul. It is hilly, well watered, and well adapted for cultivation. *Oudeypore* or *Oodeypore*, the capital, is situate in a valley 60 miles in circuit, which has only one entrance passable for carriages, 2064 feet above the level of the sea, and contains two lakes of considerable extent. The city is built on an elevated ridge of rocks. The Rana of Oudeypore is of the most ancient and purest descent of all the Rajpoot princes, and is on that account the most honoured among them, though not the most powerful. *Chittoore*, the ancient capital of Mewar, is situate 70 miles E.N.E. of Oudeypore, and contains a very celebrated fortress, built on a steep hill above the town. *Nathdwara* (the portal of God) 22 miles N.E. of Oudeypore, on the right bank of the Bunass, is one of the most remarkable temples in India. It was founded in the reign of Aurungzebe, when Vishnu was exiled from his ancient temple in Vrij, on the Jumnah, and is one of the best frequented places of Hindoo pilgrimage. A considerable town has grown up around it, and the priests and their retainers are supported by contributions from all parts of India. *Komulnair* or *Comulnere*, a formidable hill fortress, 45 miles N. by W. of Oudeypore, 2500 feet above the level of the sea, contains a Jain temple dedicated to the supreme God, which is considered as among the most beautiful of the shrines of India. *Jyepore* or *Jeypur*, *Kishengurh*, *Kotah* or *Haranttee*, *Bundi*, *Kerowly*, and *Alwar*, are situate to the north-east and east of Mewar, and partake of the same character, being hilly and well watered, fertile and populous, though in some parts arid and desert, particularly in the western part of Jyepore. *Jyepore* or *Jaipore*, is a handsome well-built town, with a fine castle situate on a steep and lofty rock, 80 miles E.N.E. of Ajmere. It contains by native calculation 80,000 houses, which would give a population of 400,000. It is a magnificent city, and may challenge comparison with any other in India; it is built in a sandy plain, with streets crossing at right angles. *Joudpore* or *Marwar*, which lies to the west of the Aravulli mountains, and extends into the desert, is an arid territory of about 70,000 square miles, but generally well peopled, and valuable, producing wheat and other grains. It is traversed by the singular river Loonee or Loony, which, at the distance of 50 miles from its mouth, sends off numerous branches, intersecting a flat and fertile district of 350 square English miles, called *Nueyur*. The soil is there very rich, and wheat is its universal product; it abounds with herds of cattle, and the cows and oxen are of a superior kind. Buffaloes are also reared, and there is abundant fodder for camels. Wild hogs and game abound on the banks of the river among the peloo and tamarisk shrubs; and tigers, hyenas, and wolves are attracted by the herds. Small crocodiles are found in the pools; wild ducks and partridges are plentiful, and among the latter is the black partridge, noted for the richness and beauty of its plumage. The Nueyur is studded with villages, the chief places of note being *Gurra* and *Nugger*; the one with 20,000 inhabitants, the other with 1500; to the Loonee alone is the abundance of vegetable and animal life to be attributed. During some seasons the Nueyur is a sheet of water. *Joudpore* (*Judpur*, *Jhod-poor*), the capital of Marwar, 100 miles W. by S. of Ajmere, a beautiful city, filled with temples and ornamented houses, is built in a hollow, surrounded by rocky eminences, on which are three forts, the largest of which contains the Rajah's palace, a very extensive edifice, and visible from a great distance. This fort is amazingly strong, and stands on a rocky and perfectly impracticable hill. Joudpore is the centre of a very extensive trade, and contains about 60,000 inhabitants. Marwar contains altogether about 500 towns and villages; few of the towns are large, but many of the villages contain from 1500 to 2000 houses. *Pallee*, 40 miles S.S.E. of Joudpore, a large open town in a low swampy plain, but commercial and wealthy, with 50,000 inhabitants. *Nagore*, 70 miles N.N.E. of Joudpore, is a walled town with a substantial fort, famous for its manufactures in brass and iron, and containing 40,000 inhabitants. The territory of *Jeysulmere* is barren and unproductive, with little arable land. The surface is generally uneven, covered with rocks, which never rise into hills, or extend in chains, but are scattered irregularly. Not more than a third of the country will admit of tillage; the parts which are cultivated, yield good crops of the coarser grains, as bajree and moong, but no wheat; and the cotton crops are only reaped after a three years' fostering care. *Jeysulmere*, the capital, is a fine city with 20,000 inhabitants, and a fort or castle of a most commanding and magnificent appearance, 140 miles W.N.W. of Joudpore. The territory of *Bicanere* forms a portion of the Great Desert, and is flat, sandy, and destitute of water, except from wells, which are dug from 100 to 200 feet deep. The crops are very precarious, and greatly dependent on the rains. Horses and bullocks are the only articles of export. *Bicanere* (*Bicaner*, *Bikanair*), the capital, is a large town, presenting externally the appearance of a great and magnificent city in the midst of a desert, but the interior is composed of mud huts. It is surrounded with a strong wall and towers. *Sirohi* or *Serowly* is a small principality to the south of Marwar, at the south-west extremity of the Aravulli mountains. It contains the sacred mount *Abou* (*Abu*, *Abuje*, *Abughad*), which is about 50 miles round the base, and rises 5000 feet above the level of the sea. Its various elevations and platforms are covered with shrines, temples, fortresses, and tombs, adorned with sculptures and statues, which are relieved at intervals by all the varieties of wild and beautiful scenery. On the very summit is a small circular platform, containing a cavern with a block of granite bearing the impression of the feet of Data-Briga (an incarnation of Vishnu), which is the grand object of pilgrimage; but in that part of the mountain called *Dailwarra* or *Devulwarra* (region of temples), is the most superb of all the temples of India, to which no other edifice but the Taj-mahal can be compared. It is sacred to *Virshabdeva*, the first of the Jains, was erected by Binul Sal, a merchant of Anbulwarra, one of the richest of their votaries, and attracts pilgrims from every region of India. The principal building is surrounded by numerous minor temples, the chief features of which are not mere solidity and vastness; their merits consist rather in the proportions, the endless variety and richness of the

sculptures, the extended colonnades and vaulted roofs, which give evidence not only of unbounded wealth in the founders, but also of high refinement in the arts.—(*Todd's Travels in Western India.*) The other places in Rajpootana are of little importance; the names and situations of the principal of them are arranged in the following table, with their distances from Ajmere:—

Aboo, 160 S.W.	Jyepore, 80 E.N.E.	Pokrun, 165 W. by N.
Alwur, 146 N.E. by N.	Kerewley, 18 E.	Purtabgurh, 170 S.
Banswarra, 200 S.	Kishengurb, 18 N.E. by E.	Rampoora, 97 E.S.E.
Bhilwarra, 70 S.W. by W.	Konulmair, 120 S.W. by S.	Rutlam, 220 S.
Bicanere, 125 N.W.	Kotah, 120 S.E.	Ryepore, S.W.
Bundi, 110 S.E.	Machery, 160 E.N.E.	Sambre or Sam-
Bunaira, S.	Mairta or Meerta, 40 W.N.W.	bur, 47 N.E.
Chittore, 110 S.	Mandulgurb, 90 S. by E.	Sanganeeer, S.
Chooroo, 133 N. by E.	Mokundurra, 140 S.E. by S.	Sawa, S.
Dedwana, 66 N. by W.	Nagore, 70 N.W.	Seywanah or Sey-
Dehgong, 252	Narnol, 147 N.E.	wanoh, S.W. by W.
Dongurpore, 180 S.S.W.	Neemuch, 140 S. by E.	Sirohi, 140 S.W.
Fullodee, 140 W.N.W.	Nimbera, 126 S.W. by W.	Sojot, 73 S.W. by W.
Hinglasingurb, 144 S.S.E.	Nusseerabad, 12 S.E.	Thurraud, 240 S.W. by W.
Jaitarun, S.W.	Oudeypore, 130	Tijara, 170 N.E. by E.
Jaysulmere, 200 W. by N.	Palee, 95 W.S.W.	Tonk, 70 E. by S.
Joudpore, 80 W.	Parbusir, S.W.	Ummurgurb, S.
Julra-Patun, 160 S.E. by S.	Peepur,	Wallotra, S.W.

Kotah, a large city on the right bank of the Chumbul, is the capital of the state of Haraotee, which extends southwards to the Mokundra range of hills; and contains *Julra-Patun*, a well-built modern town, surrounded by a substantial wall, with round bastions. *Neemuch* is a British military station, 80 miles E. of Oudeypore; it has a small stone fort, constructed for the purpose of affording protection to the wives and families of the troops, should they take the field, and of serving as a depot for military stores. The climate is very salubrious; but the scanty supply of water is drawn from wells. *Neemuch* is situate within Scindiah's territory; and usually contains four regiments of native infantry, one of cavalry, some artillery, and a corps of local horse.

Sinde is a large territory occupying the lower part of the basin of the Indus or Sindé, which traverses the country in numerous and ever-changing branches, along the banks of which, and within reach of irrigation are the only cultivated districts. To the eastward of the river there is not a rising ground or a stone, except the hillocks of Buckhur and Hydrabad. The country is flat and covered with bushes, till at last it joins the desert of sandhills which separates it from Rajpootana. Westward, as low down as Sehwn, the same flatness prevails to the foot of the Beloochee mountains; from Sehwn to the sea the land is rocky and barren. The delta of the Indus has a rich alluvial soil, but is poorly cultivated. The depressed shore offers no remarkable object to the eye of the mariner; the coast line is covered at spring tides. Ten miles from the sea the country is often an impervious jungle; higher up it is overgrown with tamarisk shrubs; but the greater part of it presents a naked plain of hard baked clay. Much of the land adapted for cultivation is only used for pasture, and great part of it lies waste; yet the crops of rice are extensive, and their produce far exceeds the consumption of the inhabitants; wheat, barley, jawaree, and other grains, indigo, sugar, tobacco, and hemp, are also grown. Very little labour is bestowed upon them; the seed is scattered after the inundation subsides, and the harvest is certain. *Sinde*, indeed, owes its fertility entirely to the Indus, without which it would be as barren as the country to the eastward. In winter the climate of the delta is delightful, being cool and bracing; ice is occasionally found in the morning, but the temperature generally ranges from 45° to 82°, and during the day is most agreeable; fogs, however, sometimes occur, but they are not very prevalent, and quickly dissipate as the sun rises. In summer the heat is excessive; at Sukur, on the Indus, 27° 43' N. lat., in June 1839, the thermometer stood at 100° in the shade, 105° in the hospital, 123° in the seapoy's tents, and 146° in the sun. Little rain falls, but during the inundation the climate is very unhealthy; fevers, dysentery, and agues then prevail. The population is very mixed, being composed of Hindoos, Jauts, Beloochees, and various other tribes from the adjacent countries. The Seids or Sayyads (descendants of Mahomet), and Fakirs (religious vagabonds), are very numerous, and are estimated at so many as 100,000. The wealth of many families consists of their herds of horned cattle; and of their produce, hides and ghi, Kurachi exports a considerable quantity. The buffalo furnishes the principal supply. *Sinde* formed till lately an independent state, ruled by the three chiefs of a family called Talpoora, with the title of emirs or ameers; but, in 1839, it was reduced to subjection by the British army of the Indus; and, in 1843, incorporated with the British territories. The ameers had long been jealous of the British power, and had shewn themselves exceedingly averse to the opening of the navigation of the Indus. They had at last been induced to sign a treaty yielding the banks of the river, and the country between it and the western mountains; but immediately repenting of that act, they commenced hostilities; which ended in their defeat, and the conquest of their country. *Hydrabad* or *Haiderabad*, the chief town, is situate at the eastern bank of the Indus, 120 miles from the sea, and contains about 20,000 inhabitants, who live in mud hovels scattered about the south end of a rocky hillock, on the top of which is the fort, a mere shell, consisting of a single brick wall surrounded by a dry ditch; at the northern extremity of the hill are the tombs of the chiefs, some of which are beautiful structures. *Tatta* or *Thathah*, the ancient capital, stands at the head of the delta of the Indus, 60 miles from the sea, and 3 from the river, upon a rising ground surrounded by a brick wall, and contains about 18,000 inhabitants. The town is dirty, with narrow irregular streets, and consists chiefly of mud huts, or of bricks plastered over with mud and straw. The cemetery extends for several miles, and contains a number of beautiful and magnificent tombs, erected in the days of the city's prosperity. *Tatta* has acquired some celebrity for the lungi, a rich fabric of silk, cotton, and gold, of variegated pattern and close texture. The raw silk in most estimation with the weavers is that from the Persian province of Ghilan. In the vicinity are the ruins of *Kulancoté* and *Saminuggur*, places to which the natives ascribe a high antiquity. *Kurachi* or *Carachee*, between Ras Moore and the delta of the Indus, the principal seaport of *Sinde*, is a large town of mud houses, with narrow, irregular, and incommensurable streets, and containing no building worthy of notice. Though it has long been the commercial emporium of *Sinde*, no attempt has been made to improve the creek which forms its harbour; the goods have to be put into large punts or flat boats, and hauled through the mud, or carried on men's shoulders. The bazaar is very extensive; some of its streets are entirely shaded from the sun by matting. The principal merchants are Hindoos, and that people form the greater proportion of its 10,000 inhabitants. They carry on a brisk trade with Bombay, Malabar, and Arabia. The town enjoys a great celebrity for the tanning and preparation of hides, which are chiefly exported to Muscat, but are also used to some extent in *Sinde*. From February till October, Kurachi is the only accessible harbour on this coast. With the exception of the gardens in the vicinity of the town, the country around Kurachi is literally a waste; there being no vegetable production except the clumps of prickly pear with which the face of the ground is thickly studded; it is, nevertheless, the healthiest place in *Sinde*, and the prevalent diseases are few and tractable. *Fort*

Manorah, on a rocky promontory between the open bay of Ras Mooaree and the roadstead of Kurachi, guards the entrance to the harbour. Among the outlying hills which skirt the Hala mountains, about 9 miles from Kurachi, is a hot spring, the temperature of which, where it wells from the ground, is 136° Fahrenheit. The stream waters a small valley, and supplies some ponds or swamps, in which the fakirs keep numbers of tame alligators. **Bunder Vikkar or Vikkur**, on the Bati-mari branch of the Indus, ranks next to Kurachi among the seaports of Sind, but is an inferior town. **Dharaja**, the port of Tatta, 20 miles from the sea, is also conveniently situated for trade. **Schwun**, a miserable collection of huts, with 10,000 inhabitants, 2 miles from the right bank of the Indus, 105 miles above Hyderabad, is a place of great antiquity, with a very remarkable castle now in ruins, which overlooks the town, and contains the shrine of a saint named Lal-shah-baz, whose tomb is a place of pilgrimage to both Hindoos and Mussulmans; the neighbouring country is rich and productive. Between Schwun and Hyderabad, near the left bank of the river, is **Hala**, a considerable town, which derives no small degree of importance from the shrine of a saint, named Pir Mukdumun. It has also been long noted for earthenware and Sindian caps. The ruins of **Khodabad**, once the favourite residence of the Talpoor chiefs, are situated a little to the N.W. of Hala. **Bukkur or B'kkur**, 160 miles above Schwun, a fortress on a rocky island in the channel of the Indus, about 800 yards long and 400 broad, is considered by the natives as impregnable, but is entirely wanting in every point which can make it a place of strength. It was ceded to the British Government by the Khan of Khyrpore in 1839. **Roorce or Rori**, a town of 8000 inhabitants, built on a precipice of limestone and flint 40 feet high, on the left bank of the Indus, facing Bukkur. **Sukur**, on the opposite side of the river, situate on lower ground, is about half the size of Roorce. In the channel of the Indus, between these towns, are several rocky islets, one of which is occupied by Bukhur, and another, **Khajja Kizir**, is noted for its sanctity. **Khyrpore**, 14 miles S.S.W. of Bukkur, a very large open town, with 15,000 inhabitants. **Larkhanu**, 14 miles W. by S. is also a large straggling town, with 10,000 inhabitants, in the midst of a date grove, on the banks of a fine canal drawn from the Indus. **Shikarpore**, a very large town 15 miles W. from the Indus, chiefly inhabited by Hindoo bankers and merchants, who have commercial connections all over the East. The houses are entirely of mud, or sun-dried brick, but the town is surrounded with gardens.

DAUDPOOTRA, the territory of the Nawab Bhawal Khan, which extends along the left bank of the Indus and the Gharra for more than 300 miles, is only a portion of the great desert, an endless expanse of sandhills thinly covered with jhow and phog bushes, which furnish food merely for camels; the only cultivable part of the country being what is within reach of irrigation by the waters of the rivers. The Nawab is nominally independent, but is in alliance with, and under the protection of the British Government. **Bahawalpore**, his capital, is a large commercial town of mud houses, surrounded with a low mud wall, and crowded with koojar and peepul trees, on the left bank of the Gharra, with 20,000 inhabitants. It enjoys great reputation for its silk manufactures. His other towns are **Ahmedpore**, about half the size of Bahawalpore; **Darawal**, an ancient fort in the desert; and **Ooch, Uch, or Utsch**, 3 miles E. of the Chenab, and 5 miles below its confluence with the Gharra, in a fertile plain, shaded with trees, and containing 40,000 inhabitants, who are miserably poor, though the neighbouring country is richly cultivated. Tobacco grows luxuriantly; indigo is also reared successfully. Wheat and other dry grains are cultivated in preference to rice, which does not form here, as in Sind, the principal food of the people. The country abounds with game. Uch is highly celebrated for the tombs of two Moslem saints.

The **PROTECTED SEIKH**, and other states on the left bank of the Sutlej, are about 150 in number. The country and the principal towns have been already described at page 717. The territory of the **Rajah of Bissahar** extends to the northern side of the Himalayas, along the valley of the Sutlej.

§ 6. Independent States.

The **MAHARAJAH SCINDIAH**, one of the principal feudatories of the late Mahratta empire, possesses a large territory of the most irregular form, which extends through the middle of Hindustan from near Baroda to the neighbourhood of Agra, a distance of 450 miles, and comprises about 42,300 square miles, with a population exceeding 4,000,000. Ranoojee Scindiah, the first of the family who attained eminence, was one of the commanders under the Peishwas in the Mahratta expeditions into Hindustan in the early part of last century; and he and his successors acted a distinguished part in all the wars and revolutions of the country down to 1817, when the present limits of their territory were fixed by treaty with the British Government. The territory is capable, under proper management, of realizing a revenue of 140 lacs of rupees (£1,400,000 sterling). The rajah is bound to aid the British Government when required, with a contingent of 5000 men; and he maintains, besides, a large military force, which, at the death of the late Maharajah, the last of the original family, in 1827, was estimated at 14,000 infantry, 10,000 cavalry and 250 pieces of cannon. The present rajah is only a distant relation, brought from the original seat of the family in the Deccan in 1827, and adopted by the widow of the late Maharajah, after his death, and married to his grand daughter. His capital is **Gualior**, a large town of 50,000 inhabitants 80 miles S. of Agra; with a celebrated fortress, built on a long flat insulated hill, half a mile in length, three or four hundred yards broad, and rising in the highest part 450 feet above the plain. The rock is for the most part inaccessible, and is surmounted by a stone rampart along its edge. It formerly belonged to the Rana of Gohud. The other principal towns, with their distances from Gualior, are arranged in the following table:—

Aggur or Augur, . . . 216 S.W. by S.	Gohud, 23 N.E.	Mundissor or Mundissor, 240 W.S.W.
Bansore, 180 W.S.W.	Hindia, 284 S. by W.	Nemuch, 230 W.S.W.
Bhilash, 190 S. by W.	Hinglaishgur, 200 S.W.	Onjein, 260 S.W. by S.
Burhanpore, 360 S.S.W.	Jawud, 220 W.S.W.	Ruttumghur, 205 W.S.W.
Champaneer, 380 S.W.	Khimlassa, 150 S.	Seeta-mhow, 225 W.S.W.
Chendaree, 120 S.	Mehidpore, 250 S.W.	Shahjehanpore, 230 S.W. by S.
Emlea, 20 N.N.W.		

Oujein or Ougein, which holds a high rank among the holy cities of India is situate in Malwah, 1698 feet above the level of the sea, and 350 miles N.E. by E. of Bombay. It is of the most remote antiquity, being described in the Puranas; and the Hindoo geographers and astronomers consider it their first meridian. The ancient city, however, was destroyed by some physical catastrophe; the Hindoo legends say a shower of earth buried the city and its inhabitants. The modern town is a mile N. of the ancient site; is surrounded with a wall six miles in circumference, and is very populous. At **Mehidpore or Mahidpore**, on the banks of the Secprah or Siprah, 20 miles N. by W. of Oujein, Holkar was defeated by the British forces, 21st December 1817. **Burhanpore or Burhaunpore**, the late capital of the soubah of Khandeish, is one of the finest cities in the Deccan, and the head-quarters of a singular sect of Mahometans called Bohrah, who all actively engage in commerce, wear a peculiar costume, and retain in their form and features characteristic traits of their foreign (Arabic) ancestry. It is situate on the right bank of the Tuptee, 260 miles N.E. of Bombay. **Hindia** is a town and fortress on the right bank of the Nerbuddah, where the river is 1000 yards broad. **Chumpaneer** was once a large city, whose ruins extend several miles, but are covered with jungle. A small area inclosed with a wall and inhabited by silk weavers, forms the modern town. Overlooking it the stupendous

rock of *Powan-gurh* rises abruptly from the plain to the height of 600 yards, presenting a perpendicular face except on the north side, where it is fortified with five walls. On the top is a famous pagoda, dedicated to the goddess Kali; and also the tomb of a Mahometan saint. The fort has also an inexhaustible supply of water, but was nevertheless taken by storm by the British forces in 1803.

The **KINGDOM OF LAHORE**, established during the present century by an enterprising Sikh chieftain, Runjeet Singh, who died in 1839, is situate in the N.W. part of India, including all the country between the Indus and the Sutlej, and from the crests of the Himalayas to the borders of Sind. It comprehends also the narrow tract to the west of the Indus, between that river and the mountains of Afghanistan; being altogether about 500 miles in length from N.E. to S.W., by about 400 in its greatest breadth, and comprises an area of 160,000 square miles. The southern and south-eastern portions of the kingdom form part of the great plain of Western India, and consist of sandy wastes, or hard clay plains covered with jungle, admitting of cultivation only along the banks of the rivers. There, however, the soil is remarkably fertile, and produces abundantly all the necessaries of life. Towards the north-west the country is crossed by the *Jungher* or *salt range* of hills, which stretches from the Sulfid-koh in Afghanistan to the west bank of the Jhylum. The hills rise abruptly from the plain to the height of 2100 feet above the level of the sea, and support on their northern side the table-land of Taxila, about 800 feet above the level of the plains below. The Salt range has a breadth of about five miles; the formation consists of sandstone, and the bold and bare precipices rise at once from the plain. Hot springs are found in various parts of them; alum, antimony, and sulphur also occur; but their principal mineral wealth consists of salt, which has a high reputation in India, on account of its medicinal virtues; but being impure it is not fit for curing meat. About 80,000,000 lbs. are yearly extracted for behoof of the government. The salt occurs in compact glassy strata, dipping at an angle of 65°. The southern part of the table-land, from want of water as well as from the presence of salt, is little adapted for cultivation, and the villages are consequently very thinly scattered. In the northern part, however, are beautiful valleys, copious springs, and a rich soil, which supports a dense population; but, owing to the oppressive character of the government, agriculture is neglected. The climate embraces extremes, and the inhabitants exhibit striking varieties of character and manners. The Moslems who border on the Jhylum closely resemble the Hindoos of the Punjab, while those on the east bank of the Indus have all the peculiarities of the Afghan character. The mountain tribes who are found along the west bank of the Jhylum are in a very savage state; most of them live only by plunder; but the tribes of the plains having a fertile country, are in comfortable circumstances, though greatly oppressed by their chiefs. To the northward of this table-land, and eastward from it to the Sutlej, the country rises into hills, which increase in elevation till they terminate with the Himalayas themselves, the whole space, 150 miles where broadest, being occupied by mountains and valleys, the principal of which is the celebrated valley of Cashmere. The dominant people are the Sikhs, who form, however, no more than about a seventh part of the total population, which amounts to three and a half or four millions. Their original country is the *do-ab* (peninsula) between the Ravee and the Sutlej, but few are found 30 miles below Lahore. There are none westward of the Jhylum; and even to the east of Lahore, where they are most numerous, they do not form more than one-third of the people. After Runjeet Singh's death, the country continued in a very unsettled state till 1845-6, when the army revolted and passed the Sutlej, to invade Hindustan. They were however completely defeated, and, by a subsequent treaty, the northern part of the kingdom was formed into a new sovereignty for Gholab Singh, the Rajah of Jamoo; and all to the east of the Beas and the Sutlej annexed to the British territory. The principal cities and towns are arranged in the following Table, with the distances from Lahore.

Attawaree, 70 S.	Jellalpoore, 215 S.W.	Paukpetten, 98 S.S.W.
Attok, 200 N.W. by N.	Jellumor Jhylum, 100 N.N.W.	Peshawer, 235 S.W.
Barai, 114 N.W.	Jhubber, 42 N.W.	Pettee, 40 S.E. by E.
Byedera, 38 S.W.	Jhung, 104 W. by S.	Pin-dadun-khan, 110 N.W.
Bhenanah, 23 E. by S.	Jaminou, 97 N.N.E.	Pind-mulik-ulea, 175 N.W.
Bimber, 103 N.N.W.	Kalabagh, 150 N.W. by W.	Pruntz, 144 N.
Bukkup, 135 W.	Kangunpoore, 60 S.	Rajaor, 116 N.
Cashnere, 175 N. by E.	Kot-kumalia, 103 S.W. by W.	Rannegurh, 67 N.W. by N.
Chouchouk, 60 S.W.	Kurrumpoore, 153 S.W.	Ramterch, 30 E. by N.
Choung, 13 S.W.	Kussoor, 37 S. by E.	Rawilpindie, 157 N.N.W.
Dan-Gali, 140 N.N.W.	Kyrodeen, 23 E.	Rotas, 110 N.N.W.
Deedwal, 141 N.W.	Maina, 24 S.W.	Sadulapore, 75 N.W. by N.
Dera-deen-punah, 208 W.S.W.	Manga, 30 S.W.	Seetpoore, 269 S.W.
Dera-ghazi-khan, 225 W.S.W.	Manikyala, 145 N.N.W.	Sheikhupura, 24 W.
Dera ismael khan, 210 W.	Meerpore, 113 N.N.W.	Shittabgurh, 160 S.W.
Dhowler, 80 S.W. by S.	Mittunkote, 290 S.W.	Shujabad, 210 S.W.
Doborjee, 50 S. by E.	Multan, 190 S.W. by W.	Sijera, 38 S.S.E.
Eminabad, 35 N. by W.	Mulka, 93 S.W. by S.	Sira, 49 S.W.
Faliah, 80 N.W.	Mulsae, 170 S.W.	Sooket, 155 E.
Futtehjung, 170 N.W. by N.	Mundee, 169 E.	Sungur, 250 W. by S.
Futtehpore, 80 S.W.	Muzufferabad, 173 N. by W.	Suntpore, 24 N.W.
Ghoorka, 53 E.S.E.	Muzuffergurh, 205 S.W. by W.	Surai-khojake, 15 N. by W.
Gujerat, 73 N. by W.	Nasaurah, 38 N.W.	Tebhee, 115 S.W.
Gujernwala, 43 N.N.W.	Neeloo, 122 N.W. by W.	Tehur, 80 S. by W.
Haizabad, 55 N.W.	Noon-maim-e, 108 N.W.	Toolumba, 120 S.W. by W.
Husun-abdaul, 130 N.W. by N.	Nungul, 25 N.	Umritsir, 34 E.
Hureeka, 50 S.E.	Nurodeen-serai, 32 E. by S.	Vizierabad, 66 N. by W.
Jellalpoore, 100 N.W.	Omerpoore, 123 S.W. by S.	

Lahore, the capital of the kingdom, stands on the left bank of the Ravee, in N. lat. 31° 33' and E. long. 74° 22', about 1000 miles from the mouth of the Indus, 38° from Delhi, 1070 from Bombay, and 1360 from Calcutta. The city is of an oval form, about 3 miles in circumference, surrounded by a strong brick wall and a ditch, with twelve gates, and as many semicircular outworks. Population about 80,000. It contains several splendid mosques; and the Shah-licmar, a beautiful garden of the Mogul emperors, is still kept in good order, about five miles from the city. At *Shah-Durrat* or *Shahdera*, 2 miles N., is the mausoleum of the Emperor Jehangier, a magnificent and strikingly elegant building, of the same style as the Taj-mahal at Agra, and apparently from the hands of the same workmen. *Amritsir* or *Umritsir* (pool of immortality) is a large town, 8 miles in circumference, and surrounded by a mud wall faced with brick. During the existence of the Sikh confederacy, till it was dissolved by the ascendancy of Runjeet Singh, Amritsir was the federal capital, as it still is the principal seat of their religion. It was anciently called *Chak*, afterwards *Randasspoore*; and acquired its present name from the famous reservoir or tank built here by the Gûrû Ram-dass. This tank is a basin 135 paces square, built of burnt bricks; in the centre of it stands the *gurut*, a small square temple, all fretted, and covered with gold outside, and in the inside splendidly and gorgeously decorated, and inlaid with precious stones. In this temple, which is dedicated to the Gûrû

Govind-Singh, is lodged the book of laws written by that Gûrû, under a beautiful silken canopy. Population of the town about 100,000. Amritsir has a citadel on the north-east side; and close to the south-west side is the strong fort of *Govind-ghur*, where the Maharajah's treasures are kept. *Moul tan*, one of the most ancient cities of India, stands on the left bank of the Chenab, is about three miles in circumference, surrounded by a ruinous wall, and overlooked on the north by a fortress of some strength, and in good repair. It is a hot, dusty, and slovenly-looking place, with narrow streets, lined with houses two, three, or four storeys high, which are built of sun-burnt bricks, and washed with mud. Moultan is famous for its silk manufactures; about 700 maunds of silk are imported every year, chiefly from Bokhara and other places in Turkestan, which are manufactured in 150 workshops. Population 45,000. (*Vigne's Cabul, &c.*) *Shujabad* or *Shonjuabad*, a modern town of 10,000 inhabitants, stands on a plain 4 miles E. of the Chenab, 30 miles S. of Moultan, and is surrounded by a fine brick wall, 30 feet high. It was built between 1808 and 1818, and is situate in a most beautiful country, watered by two spacious canals drawn from the Chenab. *Rotas*, a celebrated fortress, formerly considered one of the principal bulwarks between Tartary and India, is situate near the right bank of the Jhyllum, in the eastern part of the Salt range. *Attok*, a fort built by the Mogul emperor, Akbar, in 1581, on the left bank of the Indus, is in the form of a parallelogram, but seems rapidly falling to decay. *Cashmere* (*Cashmeer, Cachenere, Cashmeer, Kashmir, Kasmir, Kassimr*), called also *Sirinuggur* or *Sreenuggur*, a large city with about 40,000 inhabitants, is now decayed, has narrow dirty streets, and is situate nearly in the centre of the famous valley of the same name, about 5800 feet above the level of the sea. The *Vedut* runs through the city, dividing it into two principal parts, which are connected by seven bridges; but everything is in ruins. The valley is enclosed on the north side by the main chain of the Himalayas, here called the Thibet Panjahl, and on the south and south-west by a diverging chain of nearly equal height, called the Pir-panjahl. The distance between the crests of the mountains is about 130 miles E.-W. and 60 N.-S.; but the plain between them measures only 80 miles in length, with a breadth varying from 6 miles to 30. The level of the plain is very uniform, and nearly 6000 feet above the level of the sea. The soil is very rich, and produces two crops annually; in the first, the finest kinds of rice, maize, millet, oord, moogle, cotton, and lobeeah; in the second, wheat, barley, pease, beans, cablee, chimeh, mussoor, linseed, mustard, castor-oil, till or sesame, poppies, saffron, safflower, tobacco, awa-jow, mundoowah, somah, and buckwheat. There are also many kinds of culinary vegetables, and the finest fruits and flowers in abundance. Cashmere is particularly famed for its roses. The climate is very similar to that of Lombardy, and the productions much the same. "All," says M. Jacquemont, "is strangely European." The fame of this valley has extended far and wide. It used to be the summer retreat of the Great Moguls in the days of their prosperity; and to people accustomed like them and their attendants to the sultry climate and the parched plains of Delhi and Agra, it must have seemed a perfect paradise. They expended immense sums upon it in building palaces and forming gardens. Nothing, however, now remains of their magnificence but gigantic trees; their palaces fallen into ruins have almost everywhere been effaced, and the Shah-limar is the only one of their gardens that still bears a trace of its mighty lords. The mountains which inclose the valley have a very bold outline, are deeply sheeted with snow in winter, but in summer are laid bare nearly to their summits; and no part of them seems to be higher than 17,000 feet. There are many passes into the valley; the principal of which are on the north-west side. Winter is no obstacle to access; and, even after the heaviest falls of snow, people find their way across. The river *Vedut* or *Bedut* has its source in the southern part of the valley, and runs north-west to the lake Wuller or Oular, above which it is joined by the *Chote Sindh*. From the lake it flows south-west and leaves Cashmere through a beautiful pass, where its bed is from 1000 to 1500 feet deep; and to the westward of the pass, it is joined, at Muzafferabad, by the *Kishen-gunga*, a large river from the valley of Garets. Lake *Wuller* is nearly 15 miles in length, and is surrounded with forests abounding in wild animals; but the lake so celebrated in poetry and romance is the *Dal*, on the north-east of the city, 5 or 6 miles in length, and half as much in breadth. Cashmere was, a few years ago, subdued by Runjeet Singh, and was then supposed to contain 800,000 people, divided into 36 pergunnahs, containing 10 towns and 2200 villages; but through the dire effects of famine and cholera, the number of the population was reduced below 200,000; many villages were entirely deserted, so that the town of Chirar contained, in 1835, 2000 houses, and only 15 inhabitants. These disasters, and the oppression of the Sikhs have driven many of the Cashmerians to emigrate. The principal towns besides Cashmere, are *Islamabad*, *Pampour*, and *Chupegan*.

The KINGDOM OF NEPAUL OR NEPAL is situate almost entirely within the hill country of India, between the Sub-Himalayas and the crest of the main chain, extending from the river Kali on the north-west to the border of Sikim, on the south-east, a distance of 470 miles, with a breadth of about 100. It consists of at least three parallel belts, of which the first, about 20 miles broad, is a portion of the Gangetic plain. Next succeeds a region of nearly the same width, consisting of a series of small hills rising like terraces, till they gradually unite with the Himalayas. Magnificent forests of saul, sisoo, and toun trees stretch along the declivities of the lower hills into the adjacent plains; the forests higher up exhibit a greater variety, gradually assuming more and more of an alpine character. Between these hills and the Himalayas fine cultivated valleys are sometimes met with; but, though fertile, they are generally neglected on account of their unhealthiness. Some of the wild glens produce rattans and bamboos of enormous size; others contain nothing but pines and oaks; while a third series ripen the pine apple and the sugar-cane. Others produce barley, millet, and other similar grains. Peaches grow wild beside every rill, but never ripen, and the vines, which require more care than is ever bestowed upon them, produce inferior grapes; but the orange, which ripens in winter, is found in the greatest perfection. Ginger, cardamums, and grain of every kind, are abundant. The country was formerly possessed by numerous independent rajahs; but, within these ninety years, the petty princes have all been reduced to subjection by the rajah of Goorkha (a small state to the north of Nepaul proper), who has fixed his residence at Catinandoo, in the valley of Nepaul, and become king of the country. The king has been deprived of a large portion of his conquests by the British Government, and is believed to be continually plotting with the princes of India and Birma, and preparing to overthrow the ascendancy of the detested foreigners. He maintains a regular army, and the people are brave and warlike, and ever ready for enterprise. The people are chiefly of the Tartar or Mongolian family, divided into numerous tribes; but they are, in some cases, considerably mixed with Hindoo blood, and profess the Brahminical faith, though some still are Buddhists.

Catmandoo (*Katmandu, Khatmandoo*), the capital, is a small town, with narrow, dirty streets, and brick houses, situate in a circular valley, about 40 miles in circumference, 420 miles N.W. by N. of Calcutta, and 4784 feet above the level of the sea, watered by numerous branches of the river Bogmutty, an affluent of the Ganges. The plain of the valley has a rich alluvial soil, and exhibits every appearance of having been once the bed of a lake. It is exceedingly populous, and contains several considerable towns, as *Lalita-Patan*, with 24,000 inhabitants; *Timi*, *Kirtipur*, *Dewatpatan*, *Sanghu*, and *Thankot*. The other principal towns are:

Amarpore, . . . 112 S.E.	Gorkah, . . . 52 W. by N.	Mukwanpore, . . . 22 S.
Betaul, . . . 100 W. by S.	Jemlah, . . . 265 W.N.W.	Noacote, . . . 20 N.W.
Chayanpore, . . . 110 E. by S.	Khachi, . . . 154 W.	Palpa, . . . 110 W.N.W.
Dhorali or Mala- bum, . . . 140 W.N.W.	Khatang, . . . 90 E. by S.	Poing, . . . 112 W. by N.
	Lamjun, . . . 79 N.W.	Satahung, . . . 100 W. by N.

BHOTAN, BOOTAN, BOODHTAN, or B'UTHAN, situate to the east of Nepaul, and Sikim, is about 210 miles in length, and 90 in breadth. It is a mountainous country, cold, and rugged. The climate is very various, and rendered at times exceedingly disagreeable by violent gusts which blow up the ravines, and are loaded with dust. The vegetation exhibits considerable peculiarities; the bases and lower portions of the mountains are scantily covered, and it is only at great elevations that the grand forests make their appearance. The lowest level of them is scarcely ever less than 7000 feet, generally 8000 or 8500, where oaks, magnolias, rhododendrons, and several kinds of fir attain great perfection; but the southern faces of the mountains are bare of trees, in consequence of their exposure to the south-west monsoon. The sovereignty of the country is vested in the Dhurm-rajah, a spiritual prince, who never dies; but the government is exercised by the Deb-rajah, who holds office for three years, and is checked or assisted by a council; but, so bad is the whole system of government, that there is no security for property, and not much for life. Fines, however, are deemed more profitable than bloodshed, and the only safety of the lower orders consists in their extreme poverty. The people seem to belong to the Mongolian stock, their features being purely Tartar; they are rather under-sized, more remarkable for tension of sinew than for weight; they are very quiet and industrious; but the population is scanty, and the villages few and small. The palaces and castles are the only places which are well inhabited, being occupied by idle priests and their followers, who live at the expense of the poor cultivators. The causes of this scantiness of population are polyandry and agnyn, bad government, and the filthy and licentious habits of the people. The Bootes seem to have no castes, though they are divided into several sects; but it does not appear that the possession of the higher offices is confined to the higher sects. They may be classed into labourers, priests, idle retainers, and grandees. Perhaps the most numerous, and certainly the most pernicious class is that of the gylongs or priests, whose number is unusually great; they inhabit not only the palaces and castles, but also whole villages. Their chief duty is to be idle, to feast at the expense of the country, to tell their beads, and mutter prayers. Their religion consists in external forms; they are remarkably superstitious, believing in hosts of spirits whose supposed abodes they dare not pass without numerous incantations. The moral character and social habits of the Bootes are very low. They have no genius for war; and though they go armed, even the women, at all times, yet they are afraid to fire the matchlocks which they carry. Their religion is Buddhism. Many of their laws and customs have been copied from the Chinese; and they are equally scrupulous with their celestial neighbours in guarding against the entrance of foreigners into their country. The people are chiefly employed in agriculture; many of them cultivate one farm in the mountains in summer, and another in the lowlands in winter. Their commerce is trifling, as they have few articles to give in return. They export ponies, mules, woollen cloth, rock-salt, and a peculiar spice, very pungent and aromatic, which is the capsule of a species of *zanthoxylon*, found on the mountains to the north-east. Their political relations are very limited. They are tributary indirectly to Lassa, and now directly to China, though the official people strenuously deny it. The summer capital is *Tassiedum*, which, in winter, on account of the cold, is deserted for *Dosen* or *Punukha*. The eastern part of Bhotan is governed by the Towang rajah, and is a portion of the government of Lassa.—(*Journal of a Mission to Bootan 1837-8*, by Capt. Pemberton; *As. Jour.* XXXI. 81., &c. *Journal As. Soc. Bengal*, March and April 1839.)

§ 7. Foreign Possessions.

THE FRENCH TERRITORY in India consists of several detached portions, forming the single government of *Pondichery*, but arranged in five districts, namely, *Pondichery* and *Kurikal* or *Carical*, in the Carnatic; *Yanaon*, in the North Circars; *Chanderagore*, in Bengal; and *Maké*, in Malabar; comprising together an area of about 530 square miles, and a population of 168,000 souls. *Pondichery*, the capital, which is situate on the coast of Coromandel, 85 miles S. by W. of Madras, is a fine city, laid out very much in the European style, with wide and regular streets, and 40,000 inhabitants. It has a college, and several schools, a mont de piété, and a botanic garden; in the vicinity indigo, sugar-cane, and mulberries are cultivated. It has no harbour, but a tolerable road. *Mahe* is a small settlement on the Malabar coast, about two miles in circumference on the land side; it contains a well-built town, and carries on some export trade in pepper, arrow-root, and cocoa-nuts. It is very salubrious, and is on that account much frequented by the military from Cananore.

THE DANISH TERRITORY consists of the two small establishments of *Tranquebar*, on the Coromandel coast, and *Serampore*, in Bengal, forming together about 93 square miles, with 35,000 inhabitants. *Tranquebar* is a fine town, built almost entirely in the European style, and protected by a citadel named *Dansborg*. It is situate in Tanjore, on the coast of the delta of the Cauvery, a branch of which serves for its harbour. It carries on a considerable trade, and has a population of 12,000 souls. The Danes pay for Tranquebar and its territory an annual rent of 2000 sicca rupees (£200 sterling) to the rajah of Tanjore.

PORTUGUESE INDIA is now reduced to the territory of *Goa*, on the west coast, between the Concan and Canara, *Daman*, in Gujrat, and the island of *Diu*, on the south coast of Kattiwar. *Goa* consists of two provinces, *Salsette* and *Bardes*, with several islands, measuring altogether along the coast, about 60 miles, with a breadth varying from 15 to 30. The physical characteristics of the country are the same as those of the adjoining British provinces; many parts of it are well cultivated, and its revenues, estimated at 900,000 rupees (£90,000 sterling) defray all the expenses of government, besides furnishing £20,000 to the royal purse of Portugal, that being the proceeds of the tobacco monopoly. The population amounts to 500,000, two-thirds of whom are Christians. *Goa*, once the splendid capital of the wide-spread Portuguese dominions in Asia, is now deserted, fallen to ruins, and overgrown with jungle. The cathedral, however, and several other churches are still in good preservation; but the whole population, including monks, nuns, priests, and their servants, amounts only to a few hundreds, instead of the 200,000 which the city once contained. The seat of government is now at *Pangi*, called also *Filla Nora de Goa*, 6 miles nearer the sea, a collection of huts built on the low shelving shore of the river. Some of the buildings, however, including the government house, present a handsome appearance from the water. Population about 5000. The river of *Goa* forms a harbour scarcely if at all inferior to that of Bombay; it is navigable up to *Goa*, 8 miles from the sea. On the north bank stands the fortress of *Reis*, a striking object, bristling with cannon. The scenery is most beautiful, but the climate of *Goa* itself is very unhealthy, a circumstance which has chiefly led to the town being so completely deserted. The archbishop of *Goa* takes the title of Primate of India, and resides at *Sin Pedro*, 3 miles from *Pangi*, with which it is connected by a fine road. The entrance to the harbour is formed by *Agoda*, an elevated rocky promontory on the north side, and *Cabo*, a similar but less celebrated point on the south. The only passage for large ships is commanded by the guns of two forts at *Agoda*. On the point of *Cabo* is a Dominican monastery, which forms a fine object. *Mergaon*, in *Salsette*, and *Marpuca*, in *Bardes*, are considerable towns, with each about 10,000 inhabitants. *Daman* is a seaport town in Gujrat, on a small river, 82 miles N. of Bombay. The houses are whitened, and give to the town externally a handsome appearance, but the streets are narrow and dirty, and the walls are incapable of defence. *Daman* contains several churches and convents, and a Parsee temple, in which the sacred fire brought from Persia has been preserved for 1200 years. *Daman* is noted for its docks and shipbuilding. Population about 6000. *Diu* is a small town and fort, now fallen to decay, at the east end of the island of the same name in Kattiwar. The

Governor-General has recently (1840) declared that all kinds of merchandise may be deposited in the ports of Goa, Diu, and Damann, on the payment of an *ad valorem* duty of one per cent. and that no further tax will be levied on their exportation.

§ 8. The Islands of India.

CEYLON.—This large and beautiful island, "the Jewel of the Eastern Seas," and "the Gem of Paradise," is situate between $5^{\circ} 56'$ and $9^{\circ} 56'$ N. lat. and $79^{\circ} 51'$ and 82° E. long. to the south-east of the southern part of the Carnatic, from which it is separated by the Gulf of Manaar and Palik's Straits, which, at the narrowest part, along Adam's Bridge, are 62 miles wide. It is of an oval shape; the northern portion is an extensive plain, with only a sandy beach, overhung by groves of cocoa-nut trees fringing the coast, and not an eminence of any kind can be distinguished from the sea as breaking the line of those trees from the interior. The southern portion is hilly near the sea, and mountainous inland towards the centre, some of the ranges presenting masses of the most fantastic shapes. All round the island, however, there is a belt of rich alluvial soil well watered by numerous streams. On the west side the country is flat; and the north coast is broken into a number of islands and rocks. The centre of the southern portion is occupied by a picturesque table-land, 67 miles by 50, between 2000 and 3000 feet above the level of the sea. From this elevated region some conical mountains rise several thousand feet higher. The mountains run in general in continuous chains, interspersed with the loveliest valleys; the hills are clothed to their very tops with gigantic forests, from which issue magnificent cascades, and foaming cataracts form in the valleys placid rivers, and babbling brooks, which are fringed with turfy banks, and all the beautiful verdure of the inter-tropical regions. The highest mountain is *Pedrotallagalla*, near Newera-ellia, 8280 feet high. *Kirrigal-pota* is 7810; *Totta-pella*, 7720, and *Adam's Peak*, formerly supposed to be the highest in the island, is now ascertained to be only 7420. The plain of Wilmantalawé is so high as 6690, and that of Newera-ellia, 6210.

Though there are no natural lakes in Ceylon, yet probably no country is better watered by rivers and innumerable streams and rills than the hill country of the interior and the adjacent districts; while the ingenuity and labour of the earlier inhabitants, by the construction of immense reservoirs, had almost rendered it independent of such droughts as occasionally happen. The principal rivers are: The *Mahavila-ganga*, or *Mahavelle-ganga* (Great Sandy River), which rises from the Newera-ellia Mountains, flows by Kandy, from which to the plains of Bintinne, a distance not exceeding 30 miles, it hurries down a descent of more than 1000 feet perpendicular, receiving in its course a great accession of waters. It then flows north-east with a slow and tedious course, through the flat country, into the sea between Trincomalee and Batticaloa. It is believed to be navigable to Bintinne, but the lower part of its course is obstructed by sandbanks; and below Kandy, by rocks and a succession of rapids. It is subject, like all the other rivers and streams, to great and sudden floods during the rainy season. In 1834 the Mahavila-ganga rose 60 feet above its ordinary level. *Kalany-ganga*, rises from the group of mountains of which Adam's Peak is the centre, and enters the sea three miles north of Colombo, after a course of 60 miles, through three-fourths of which it is navigable for boats. *Kaluganga* (Black River), rises on the south side of Adam's Peak, and falls into the sea at Caltura; it is navigable for boats 40 or 50 miles. *Welleway-ganga*, enters the sea between Tangalle and Hambangtotte. The other rivers of the island are of little consequence. They are more numerous on the west than on the east coast, and less unfrequent in the south than the north.

Ceylon is completely under the influence of the monsoons; the north-east prevailing from November till February, the south-west from April till September, and the intervening, or equinoctial months having variable winds or calms. The east side of the island is hot and dry; the central, western, and southern provinces are temperate and moist. The south-west wind is felt generally over the island, but the north-east wind does not, during half its duration, reach across the mountains to Colombo, on the west coast. A great deal of rain falls, particularly among the mountains, and on those parts of the coast which are most directly exposed to the monsoons. The rains are periodical and very heavy. In the northern part of the island, and along the east coast, the rainy season begins in November, and lasts about two months with great violence; during the rest of the year the country is dry, and is rarely visited by scanty showers. On the west coast the greatest quantity of rain falls about the setting in of the south-west monsoon, but it is not so heavy, nor so constant as on the other side; the dry season, however, is more apt to be interrupted by showers. The seasons among the mountains are more or less of the same kind, according to the localities and aspects. Rains are frequent in the interior, and the country is accordingly well watered. The heat varies in different places. The west coast is remarkable for equality of temperature, the mean being about 78° and the atmosphere exceedingly moist. At Colombo the mean daily variation does not exceed 3° , while the annual range of the thermometer is from 76° to 86° . The east coast about Trincomalee is remarkable for intense heat, the mean temperature of the hot months being about 82° , the greatest daily variation 17° , and the annual range from 74° to 94° . Among the mountains the heat is less violent; the mean annual temperature at Kandy is $73^{\circ} 5'$, the mean daily variation 6° , and the annual range from 66° to 86° . Higher up, at Newera-ellia, the mean daily variation is 11° , and the annual range from 54° to 80° . The healthiest parts of the island are the south-west coast, and the hills and table-lands of the interior. The most unhealthy regions are the wooded parts between the mountains and the sea, all round except on the south-west, where the hills come down to the coast. Hurricanes are unknown.

Uniformity of formation is the most remarkable feature in the geological structure of the island. With very few exceptions, the whole island is composed of primitive rocks, granite or gneiss, with some large veins of quartz, hornblende, and dolomite. Limestone is found near Kandy and Jaffnapatam, and is of the shell kind, mixed with coral rock; grey and blackish sandstone occurs along the shores. The only metallic ores hitherto found, are iron pretty generally diffused, and manganese. The island has been long famed for amethysts, topazes, garnets, catseyes, cinnamon-stone, sapphires, rock-crystals, shorl, zircon, rubies, and diamonds, &c.; but in general the gems are not of much value, and the ruby, the most valuable, is rarely met with. The pearl fishery in the Gulf of Manaar, sometimes produces great abundance of that valued gem. The most productive pearl banks are situate off *Condatchy* or *Kondatchie*, a miserable village, 120 miles N. by E. of Colombo; and extend 30 miles from N. to S. with a breadth of 20 in the lower part of the Gulf of Manaar. The fishery generally begins in March, when the calm weather permits the boats to go out and in daily. The average net revenue produced to government from this fishery for 32 years, ending in 1832, was £14,622 per annum. The season lasts only 31 or 35 days; and each bank being available only for a period of about 20 days, once in seven years, the fishery is sometimes small, and sometimes there is none at all. The pearl oyster, though neither palatable nor wholesome, is not poisonous, and is sometimes eaten by the poorest of the people who frequent the fishery. None of the pearl divers are Singalese; the most of them come from the opposite coasts of India. There are some other detached banks, but of inconsiderable value, compared with those of Manaar, situate farther south, nearly opposite *Chilaw*. Repeated examinations of the banks, and judicious restrictions of the fishery to those places where the oysters are of full size, have almost brought the pearl fishery to be a regular item in the annual revenue of Ceylon — *Lorbes*, l. 255-7. Nitre-caves are

numerous; alum is plentiful, and the coast from Chilaw to Manaar and Jaflna, on the west side, and from Tangalle, through the Mahagampatoo to the eastward, contains extensive and valuable salt formations.

The vegetable productions are not less valuable, the most celebrated and the most precious of which is the *cinnamon-tree*, which grows wild as well as in a cultivated state, in every southern part of the island where there is sufficient moisture. Hitherto the cultivation and sale of the article have been monopolised by government; but even under this vicious system, the cinnamon gardens covered upwards of 17,000 acres on the coast, the largest being near Colombo. The cinnamon-tree grows wild in the woods to the size of a large apple tree; but, when cultivated, is never allowed to exceed ten or twelve feet in height. Next to the cinnamon in repute, though in reality far more valuable, is the cocoa-nut tree, which furnishes a large portion of the people with their principal subsistence. From Tangalle to Chilaw, a distance of 135 miles, the country is nearly one continued grove of cocoa-nut, bread-fruit, and jack-fruit trees. Cotton is produced with the greatest facility; every village or hut has its patch of sugar-cane and tobacco; coffee grows luxuriantly, and, without care, even of an excellent quality. Of late, the attention of speculators has been strongly directed to this article, which has already become the staple production of the island, instead of cinnamon, the demand for which was so capricious that it could hardly be cultivated with profit; but the coffee planter has a quick and sure return for his expenditure. In five years the tree reaches maturity, and before the expiration of the sixth, the receipts cover the original and current expenditure. During 1838 more than 40,000 acres of land were purchased from government for this purpose; and, if the progress of cultivation continue to advance at the same rate as it has done for the last few years, an immense improvement will soon be effected in the desert wastes of the island, and, as a necessary consequence, in the moral character and intellectual advancement of the people. Almost all the coffee plantations are situate in the Kandian or inland provinces. Many of them are scattered over the high country between Kandy and Newera-ellia, where the road frequently winds through estates in a high degree of cultivation.—(*Lieut. Butts, As. Jour.* April 1841.) The pepper vine grows nearly wild all over the island; cardamum plants are equally plentiful; areca-nut and rice are produced of the best quality; teak forests abound, and excellent masts and yards are everywhere procurable. Calamander, ebony, satin, rose, sappan, iron, jack, and every kind of the most beautiful wood for cabinet work are found in rich profusion. Enchanting groves of the palmyra palm surround the villages in the northern part of the island, and, like the cocoa-nut of the south, are of the greatest value to the people in seasons of drought. It was at Fort Maedonald and its neighbourhood that potatoes were first successfully cultivated, so as to supply the market at a moderate price; and although at Newera-ellia they grow still larger and finer, it is from Upper Ouva that the general supply is obtained. Not only potatoes, but most of the other European vegetables, are now general in every good garden in the Kandian country; but the seed must be continually renewed from Europe or South Africa.

The animal kingdom is not less rich; earth, air, and water, are instinct with life. The elephants are large and docile; the tiger formidable and destructive; and likewise the buffalo in its wild state. There are deer of every kind, and elks resembling the fossil remains of Ireland. Snakes, even poisonous ones, are very numerous and large, but deaths caused by them are very few. The most dangerous snake is the tie-polanga; the formidable cobra-di-capello is comparatively harmless, being less vicious and less easily provoked. The *purpera* is the monarch of the island snakes, being sometimes more than 20 feet in length; but it is little dreaded, and seems to confine its ravages to the birds. Alligators are found in most of the rivers, and jackals abound in every grove. The mountain districts are infested with a kind of leech which clings pertinaciously to the skin, and extracts much blood, occasioning even painful and dangerous ulcers. In short, there is the greatest abundance of fishes, animals, and fowls; and, taken altogether, Ceylon is one of the most luxuriantly productive, and most highly favoured regions on the face of the globe.

The population may be divided into four distinct classes: *Ceylonese* or *Singalese*, who occupy Kandy, and the south and south-west coasts; *Malabars* or *Hindoos*, who occupy the north and east coasts, with the Island of Jaffna; *Moors* or *Arabs*, who are dispersed all over the island, and form the mass of the population in the Pultun district. *Veddars* or *Beddars*, the aborigines of the island, who were said to be found in the most savage state, in the great forests which extend from the south to the east and north, and also in the most inaccessible parts of the interior, wild-beasts and wild-fruits being their only food, small huts formed on the branches of large trees their resting-places, and a cloth round the loins their only dress. But this account of them is believed to be greatly exaggerated. They are indeed an uncivilized race, thinly scattered over an extensive and unhealthy tract of country, lying between the maritime province of Batticaloa on the eastern coast, and the Kandian hills; but they are all considered to be of the Goyavanzoe or highest caste, and do not appear to differ from what other natives would become, if compelled to make the same exertions, and to endure the same privations. The village Veddars have permanent places of residence, cultivate small portions of land, and communicate, although they do not mix with the other natives. The forest Veddars subsist by hunting, or on the spontaneous productions of the earth; and they obtain arrowheads, the only article of manufacture which they covet, through the intervention of their own chiefs, and their brethren of the villages. They are, however, very scantily clothed; their whole dress consisting of a small piece of cotton cloth hanging in front from a string tied round the loins. They may more properly be termed rude than savage, because they are as free from ferocity as from any trace of civilization. Their present state is an inheritance from their ancestors, the Yakkas or aboriginal inhabitants, who were in possession of the eastern part of Ceylon when Vijaya landed, *n.c.* 543; and, having then escaped from the fury of the invaders, into the forests of Bintumbe and Veddara, they have there preserved the purity of their race, and the superstitions of their fathers.—(*Forbes*, II. 75.) There are also *Malays*, *Moormen*, *Caffres*, and *Jarvenses*, a few *Chinese* and *Parsee* traders, and many descendants of the Portuguese, Dutch, and English, mixed with native blood, scattered over the island. The pure Singalese of the interior are completely Hindoos in person, manners, customs, religion, and government; and differ from Europeans less in features than in colour, size, and form. The colour of their skins varies from light brown to black; the colour of their hair and eyes also varies; but hazel eyes are more common than brown hair. In size they generally exceed the lowland Singalese and the Hindoos of Coromandel and Malabar, but are inferior to Europeans; their average stature may be about 5 feet 4 or 5 inches. They are clean made, with neat muscles and small bones; their features are commonly regular and often handsome; their faces intelligent and animated. The women are generally well-made, and good-looking, and often handsome. The Singalese of the coast are generally a finer race of men than the Bengalees, and more elegant than the Rohillas or Rajpoots. The expression of the countenance is fine; their skins nearly black; and their hair long and black, but not coarse. From the genial climate little clothing is requisite, and abundance of food (at the worst, fruit and yams), with fuel at command, probably places the peasant of Ceylon in a better position than the peasant of any other country. The higher classes, with the exception of the old chiefs, have already lost the recollection of barbarous power, and, by giving their children an English education, are teaching them to aspire to those offices which confer real importance and just influence on the possessors. The highest rank of natives have generally mild manners and quick abilities; and, from the laudable ambition with which they are inspired, it may be expected, ere long, that many of them will be found

filling with respectability the high official situations which have been opened to their competition.— (*Forbes*, I. 62.)

The Singalese recognise the four Hindoo castes, which they call *wanses*: the *Echshastria* (*Kshetraya*) or royal caste; the *Bramina*; the *Wesia*; and the *Sudra*. The first two, however, have now no existence in Ceylon; for the royal family, who were believed to be of the Echshastria caste, are now extinct; and there are no Brahmins. The *Goeuwans* or cultivators, form the highest caste in the interior; and were formerly a privileged class, who monopolised, under the Kandian government, all the honours, and all the hereditary rank; while the labourers and tradesmen formed the other caste called *Kushdranwans*. In this inferior caste, not only each service or trade was distinct, but was also subdivided into branches, the families of which did not intermarry. Below all these are the *Rhodias*, a race of outcasts, who are employed in the lowest and most degrading professions. The Singalese are, generally speaking, on a level with the Hindoos. In courtesy and polish of manners they are little inferior to the most refined people of the present day; but in intellectual acquirements and proficiency in the arts and sciences, they are not advanced beyond an equality with the darkest period of the middle ages in Europe. Their character on the whole is low, tame, and undecided, with few strong lights or shades; possessing few prominent virtues or vices, it may be considered as a compound of weak moral feelings, of strong natural affections, and moderate passions. In religion they are Buddhists, and, like all uneducated people, extremely credulous and superstitious; believing in omens, demons, and spirits. By the last census in 1833, the amount of the population was found to be 1,250,000. Ceylon is now entirely in the possession of the British; the government is regulated by a charter granted by the Crown in 1833, and is under the charge of a governor, appointed by the Crown, who is assisted by two councils, the one legislative, the other executive; and for the administration of justice there are a supreme civil and criminal court at Colombo; a vice-admiralty court, and provincial courts in various districts; besides magistracies. Trial by jury was introduced several years ago, with great success, and highly to the satisfaction of the natives, who have proved themselves to be well qualified for the enjoyment of the privilege, and the performance of its duties. For administrative purposes the island is divided into five provinces, named the Eastern, Western, Northern, Southern and Central, and each of these is subdivided into districts. In each province there is a government agent, besides 19 assistants, who are stationed in various districts. These functionaries administer the affairs of government, and also officiate as magistrates. The ecclesiastical establishment of the Church of England consists of an archdeacon, 6 chaplains, and 11 proponents. At Colombo a regular police has been organized on the London system; and throughout the island the police is generally good; but crimes are rare. Good roads, some of which are said to be equal to any in England, have been formed and are forming by Government throughout the island, rendering the various regions easily accessible, and contributing largely to their rapidly advancing prosperity. Various reforms have also been effected in the revenue expenditure, in the system of taxation, and the regulation of commerce; and the moral character of the people has already been raised very perceptibly by making them eligible to every government situation, by the general extension of education, and the introduction and rapid diffusion of the English language; but most of all by the abolition of compulsory service, in making the people all equal in the eye of the law; and abridging the authority and influence of their chiefs.

The mythological history of Ceylon extends backward to the conquest of Lanka, which was effected by the Hindoo demi-god Rama, about 23 centuries B.C.; but the authentic history commences only with the year 543 B.C., when Vijeya, a Hindoo of the solar race, conquered the island, and established a dynasty which continued to exist uninterruptedly till A.D. 1815, when the last of 165 Singalese kings was dethroned by the British Government. The family, however, of Vijeya's descendants had become extinct in 1739; the subsequent kings were only connexions by marriage with the solar race; and from an early period in the sixteenth century their dominion was restricted to the interior of the island by the Portuguese and Dutch, who were finally succeeded by the British in 1796. It has been usually asserted by European travellers and residents in Ceylon, that there were no authentic historical records; but, since the British Government acquired the complete possession and ascendancy in the island, a multitude of records have come to light, from which it is possible to compile a perfectly authentic history of the kings of the solar dynasty; or, from the year 543 B.C. to the present day, a long period of 2383 years. The earlier history is only traditional, or mythic, and, during the long period which elapsed between Rama's conquest and the arrival of Vijeya, is very obscure or almost a blank.—(*Turnour's Epitome of Cingalese History, in Appendix to vol. II. of Forbes's "Eleven years in Ceylon."*) Laka, Lanka, Lankawa, Laka-diwa, Lanka-dwipa, or some other variety of these words, is the most ancient appellation of Ceylon to be found in Sanscrit or Singalese records. Laka is the ancient Singalese, Lanka, the Sanscrit name of the island. The most common name of the island is *Singhala*, variously written *Sihala*, *Sihalen*, *Singhalen*, *Ceylon*, *Seilan*, derived from Singha or Siha, the race to which Vijeya, the Hindoo conqueror and his followers, belonged. Vijeya was banished by his father, who ruled over a country named Lala, whose capital, Singhapura, is probably the same as Singhea, on the banks of the Gunduck, where the site of an ancient city is discernible, covered with numerous ruins and Buddhist monuments.—(*Forbes*, I. 9, 12.) It is asserted by the Singalese, and the Greek and Roman geographers seem to confirm the assertion, that Ceylon was formerly of much greater extent than it now is. Lanka is said to have been 5120 miles in circumference; but by successive encroachments of the sea, to have been reduced to a circumference of 928 miles, which is considered by the Singalese to be the present extent of their island. By Europeans its circumference is reckoned about 800. The first partial submerging of Lanka is stated in the Singalese records to have occurred about 2387 years, B.C.; the second in the time of King Panduwas, who reigned from 504 to 474 B.C.; and the third and greatest in the third century before the Christian era. The Singalese traditions also mention that thousands of isles attached to the kingdom of Lanka were overflowed by the sea B.C. 2387, along with the splendid capital of Sri-Lanka-pooru, which stood to the westward of any part of the present island.

The revenues derived from land-rents and various other sources, averages somewhat more than £330,000 a-year, and now generally exceed the expenditure. The military force consists of 4 regiments of the line, 2 companies of artillery, and the Ceylon rifles, consisting of 16 companies, principally composed of Malays.

Towns, with their distances from Colombo.

Anaradhapooru, 104 N.N.E.	Fort Macdonald, 70 N.E. by E.	Newera-ellia, . . . 60 E. by S.
Badulla, . . . 85 E.	Ilambangtotte, 100 S.E. by E.	Paltupane, . . . 110 E.S.E.
Batticaloa, . . . 140 E. by N.	Jaffnapatam, . . 170 N. by E.	Pantura, . . . 20 S. by E.
Bintenne, . . . 90 E.N.E.	Kandy, . . . 60 E.N.E.	Point de Galle, . . 65 S.S.E.
Calpenty, . . . 95 N.	Katregam, . . . 110 E.S.E.	Pultam, . . . 74 N.
Calura, . . . 25 S.S.E.	Matura, . . . 82 S.E. by S.	Ratnapora, . . . 41 E.S.E.
Chilaw, . . . 37 N. by W.	Moolitvoe, . . . 170 N.N.E.	Rokelay, . . . 165 N.N.E.
Dondra, . . . 95 S.S.E.	Nalande, . . . 75 N.E.	Trincomalee, . . 140 N.E. by N.
Fort Macdonald, 75 E. by S.	Negombo, . . . 21 N.	Tangalle, . . . 90 S.E.

Colombo, the capital of the island, is situate on the south-west coast, lat. 6° 57', long. 80° 2', with a

strong fort built on a peninsula, which is defended by 300 pieces of cannon. The town is handsome, and divided into four parts by two broad streets. The *Pettah*, or native town, is very extensive, having so many as 50,000 or 60,000 inhabitants. There appears to be little traffic, except in cinnamon and pepper; the harbour is safe at one season only; during the south-west monsoon, the whole coast is wind-bound. *Kandy*, 72 miles travelling distance from Colombo, by a carriage road equal to any in England, is situate at the head of a valley 1678 feet above the level of the sea, and surrounded with hills. The houses are all of clay, those of the chiefs tiled and white-washed, the others thatched; but all arranged in regular straight streets. Kandy was the residence of the latter kings of Ceylon, and is now the occasional residence of the British governor. It contains several temples, and two colleges for Buddhist priests. It is nearly surrounded by the Mahavelligunga, over which there is a splendid wooden bridge at *Paradenia* or *Paradenia*, 4 miles from Kandy, of one arch 205 feet span, 22 feet wide, and 67 high. Immediately adjoining the bridge, in a bend of a river, is the botanical garden, which is a pretty spot. Kandy is connected by four great roads with Colombo, Trincomalee, Baddula, and Kurunaigala. *Newera-ellia* or *Neweralia*, 50 miles S. from Kandy, upon a table-land 6210 feet above the sea, is a place rising fast into repute, from its salubrity, the lowness of its temperature, and its approximating in many respects to a European climate. Most of the European vegetables grow to great perfection; strawberries are abundant. There is also an hospital for convalescents. The mountain *Pedrotallagalla*, rises above the plain of Newera-ellia, about 2000 feet, and a road has been cut to its top, where a superb view is the reward of those who ascend it. Between Newera-ellia and Kandy, the road is so good that the distance has been ridden in five hours, and the scenery is not to be surpassed in Switzerland or Wales. The valley of *Colamalie*, in particular, situate at the base of the hills which skirt the plain of Newera-ellia, is considered by many to be the most enchanting spot in the island. The general range of the thermometer at Newera-ellia is from 45° to 65° , but it often falls to the freezing point, when of course, ice is formed; and there are few evenings in which a fire is not found to be necessary for comfort. South-west of Newera-ellia, overlooking Sallragam, is the highest table-land in Ceylon, named by the Ceylonese *Maha-ellia* (the great plain), and part of it *Wilmantallee*; but by Europeans *Horton Plains*, 6690 feet above the level of the sea. *Trincomalee* (*Trincomalee*), on the north-east coast, in lat. $8^{\circ} 32'$, long. $81^{\circ} 17'$, communicating with Kandy and Colombo by a fine road, is a small and mean town with few European inhabitants, and few Singalese, the lower people being chiefly Roman Catholic Malabars. The fortifications form a sweep of about a mile in length; and might be rendered almost impregnable. The rocky promontory occupied by the fort is dedicated to Siva, in his character of Eiwara, and is held by his votaries in great veneration. Except a few small coasting vessels with rice, there is no trade. The harbour is so land-locked that it appears like a lake; its surface is beautifully diversified with islands, covered with luxuriant vegetation, as are also the hills which surround it. It is capable of containing any fleet of the largest ships in perfect safety, and is the place of refuge for such as are overtaken at sea by the north-east monsoon. Trincomalee is considered the worst station in the island. The vicinity is a wild uncultivated country, abounding with game of all kinds, from the snipe to the elephant. The temperature is much higher than that of any other of the stations. October and the three following months are the cool season, and the climate is then truly pleasant; in March, April, and May, the heat is oppressive; the thermometer is seldom below 94° during the day, and is often at 99° ; the nights are usually cool. There are often long intervals of dry weather: six months sometimes pass without rain. The coast is celebrated for beautiful shells. The hot wells of *Kanya*, situate near a range of wooded hills, eight miles from Trincomalee, are seven in number, of small size, and of different degrees of temperature, varying from 100° to 110° , and consist of warm, pure, clear water. About 30 miles from Trincomalee is the celebrated lake of *Candery*, formed by an embankment across a valley, and covering an area of about 15 square miles. *Point de Galle*, a strong fortress and excellent harbour, on the south coast, lat. $6^{\circ} 14'$, long. $80^{\circ} 10'$. The outer and inner harbours are spacious, and the inner is secure at all seasons. The town is situate on a rocky promontory, with works upwards of a mile in circumference; and is remarkable for its salubrity. The usual range of the thermometer is from 80° to 84° , but the heat is tempered by the sea-breeze, which blows nearly the whole year. The south-west monsoon blows full and fresh from the ocean, renovating the constitutions of those who have suffered in the more unhealthy parts of the island. The inhabitants are celebrated for their skill in the making of dressings, work-boxes, and jewellery. *Dondra* or *Devinuera* (God-town), a village at the most southerly point of Ceylon, lat. $5^{\circ} 50' N.$, long. $80^{\circ} 40' E.$ *Jaffna* or *Jaffnapatam* stands in a flat country, but the richness of the vegetation, and the beauty of the scenery render its appearance exceedingly picturesque. The houses are neat and clean, and are all white on the outside; the principal street, which runs through the centre of the town, is finely shaded on each side by rows of large trees, towering above the houses, which, indeed, are only one storey high, but raised a few steps from the ground on a paved terrace. At the distance of a quarter of a mile westward from the town, stands a commodious pentagonal fort, having five bastions, and surrounded with broad ditches and an extensive glacis; a large square occupies its centre, enclosed by rails, and bounded by streets of excellent houses. At two miles distance from the fort are the Pans, where a great quantity of salt is gathered, which is disposed of for twopence the paralt (40 pounds weight), to Government, who afterwards sell the same quantity to the traders for two shillings. Vast quantities are exported to Madras, Calcutta, and other parts of India. Jaffna is situate on an island at the northern extremity of Ceylon. Near *Mandotto*, opposite the island of *Mannar*, are the ruins of a very large city, built of brick and mortar, and an immense tank 16 or 18 miles in extent, said to have been founded by the Hindoos, and made the capital of a kingdom which they established in the northern part of the island. *Zwaredhapoor*, one of the ancient capitals of Ceylon, an honour which it held for twelve centuries, was surrounded by a wall 16 miles square. Among its ruins are six pagodas of immense size, the form being a hemisphere surmounted with a spire; the two largest are each 270 feet high, of solid brick work, once entirely covered with chunam; the roofs are composed of curiously carved rafters of wood. All the ruins, and even the lofty monuments are either covered with jungle, or obscured by forests; it is nearly a thousand years since it ceased to be the capital. Its successor *Palmaraia*, which was the capital for 550 years, is likewise completely in ruins; it is situate about 35 miles S.W. of Kandy, and was finally deserted in A.D. 1319. It is now generally called by Europeans *Topure*, a corruption of *Topaveva*, the name of the tank which extends along one side of the city.

The most celebrated place, however, in Ceylon, is *Adam's Peak*, so called by the Mahometans, who believe that Adam, whose stature was equal to the height of a tall palm tree, after having been thrown down from Paradise in the seventh heaven, alighted on this peak, and remained standing on one foot until years of penitence and suffering had expiated his offence, and formed the footstep. The Hindoos ascribe the impression to their god Siva. By the Singalese, however, the mountain is called *Samanella* or *Hamanella*, from Saman, the guardian god. The top of the mountain is 7420 feet above the sea; its area measures only 70 feet by 30, and is surrounded by a stone wall 5 feet high, built in some places on the brink of the precipice. Within the inclosure is a granite rock, the highest part of which is 9 feet above the ground, and on the top is the Sree-pada, the impression of Buddha's foot, which he made on his first visit to the island. It is a superficial hollow, 5 feet 3½ inches long, and 2 feet 5 or 7 inches wide. The cavity certainly bears a coarse resemblance to the figure of a human foot; but that is helped out by a margin of plaster, which is coloured like the rock. It is covered by a small wooden temple, fixed by chains, and usually attended by a priest; and is

visited by crowds of pilgrims, who make offerings, pay their devotions, and go through certain ceremonies, deeming themselves purified from their sins by having performed so perilous a task as ascending this mountain. The ascent is difficult; and near the top is so precipitous, that were it not for iron chains fixed to the rocks, few would be able to complete their pilgrimage. Notwithstanding the help of the chains accidents sometimes occur, and lives are lost. The principal temple of Saman is situate two miles from Ratnapoor. This is the same deity as the Hindoo demi-god Lacksman, the brother of Rama, who is said in Singalese traditions to have held the sovereignty of the western and southern parts of Ceylon, and to have greatly improved the laws. His figure is always painted yellow.

—(Forbes, I. 185.)

Bate, a low island, at the north-west point of Gujrat, with a small town. Between Bate and the clifly headlands of the peninsula there is a safe roadstead usually filled with boats waiting a favourable wind. *Diu*, at the south point of Gujrat, 4 miles long and 1 broad. *Perim*, a small island on the west side of the Gulf of Cambay, opposite the mouth of the Nerbuddah. *Bombay*, 10 miles long and 3 broad, now united by a causeway to *Salsette*, which is 18 miles long by 14 broad. These form the outer limit of Bombay harbour. *Elephanta*, a small island in Bombay, about 6 miles E. from the city, 5 miles in circumference, nearly covered with wood, and abounding with springs of excellent water. It contains a very celebrated cave temple, in the face of a hill, sculptured with representations of the personages of the Hindoo mythology, but now quite deserted as a place of worship or pilgrimage. It got its present Portuguese name from the colossal figure of an elephant in stone, placed before the entrance of the temple, which fell to pieces some years ago. *Coringa*, another small island in Bombay. *Seerndroog*, a small low island so close to the mainland of Concan, as scarcely to be distinguished from it at sea; lat. $17^{\circ} 45'$ N. *Sundidroog* or *Sindeedroog*, a small rocky island on the coast of Concan, $16^{\circ} 6'$ N. lat., half a mile from the shore. It contains a fort, surrounded with a strong and high wall, the principal stronghold of Angria the pirate, and the burial place of Sivagee, the founder of the Mahratta empire. Brahmins and other attendants are maintained at the public expense, for the purpose of performing certain ceremonies at Sivagee's tomb, where his sword of state and other insignia are preserved. His memory is still cherished and revered by all classes of the Mahratta Hindoos. *Vingoria Rocks*, in 16° N. lat., sometimes called the *Burnt Islands*, probably from their parched and barren appearance, are upwards of 20 in number, visible above water; some of them are low, while others rise about 50 feet. They are barren and uninhabited, and occupy a space about 5 miles in length, between 2 and 5 miles from the shore of the Concan. *Oyster Rocks*, a number of small islets nearly opposite Carwar, $14^{\circ} 47'$ N., all above water, but destitute of vegetation; with a safe passage and good anchorage between them and the mainland. *Anjediva*, $14^{\circ} 46'$ N. lat., about a mile in length, separated from the continent by a strait 2 miles wide, which is safely navigable, having 6 or 7 fathoms water in mid channel, and no hidden dangers. The island is barren and rocky towards the sea, but fertile and agreeable on the east side towards the land. Anjediva is a Portuguese penal settlement, and has a small town and castle. To the east are two smaller islands near the shore, and another 4 miles S.E. 2 miles off the land. *Busswaragee-droog* or *Fortified Island*, $14^{\circ} 11'$ N. lat., about 6 miles in circuit, and 1 from the shore. It has a stone wall all round, the towers of which are visible at sea; but it is no longer used as a fort. *Pigeon Island*, $14^{\circ} 2'$ N. lat., 2 or 3 miles in circumference, and 100 feet high, oval, and rounded, having its steep sides and top covered with trees and verdure, but not inhabited. To the east and south-east are two smaller islands, both visible above water. *Jailycoond* or *Hog Island*, 12 miles E. of Pigeon Island, is somewhat less, but nearly as high, rising like a cone from a broad base to a sharp point, and well wooded. Between it and the shore there is an unnavigable strait less than a mile wide. *St. Mary's Rocks*, a cluster of islets 4 or 5 miles off the shore, and the *Premeira Rocks*, another cluster of the same character, but about double the distance from the shore, both on the coast of Canara, between 40 and 50 miles N. by W. of Mangalore. *Ramiseram*, on the south-east coast of the peninsula, forming the western termination of Adam's Bridge in the Gulf of Manaar, in $9^{\circ} 15'$ N. lat. It is 11 miles long, and 6 broad, and is a place of great sanctity, containing a most stupendous and very fine pagoda, dedicated to the demi-god Rama, and frequented by pilgrims from all parts of India. *Punambun*, a small town at the west end, is the capital of the island. The opposite or eastern termination of Adam's Bridge is formed by the island of *Manaar*, which is about 15 miles long, but very narrow, and is separated from Ceylon only by a small strait. *Pigeon Island*, 12 miles S.W. of Vizagapatam, of small size, and moderate height, visible 3 or 4 leagues at sea, in fine weather. *Saugur* or *Saugor*, at the mouth of the Hoogly river, a cluster of 10 islands, divided by tide creeks; altogether about 21 miles in length, from $\frac{1}{2}$ to 8 in breadth, and containing about 600,000 acres, with a soil of stiff black mud, very fertile in producing coarse rice; but no part of it is above the reach of high spring tides. It is frequented by crowds of pilgrims, for the purpose of bathing where the sacred Ganges meets the sea. *Sundeeep*, *Hattiah*, *Moncoorah*, *Deccan-shahabazpore*, large alluvial islands at the mouth of the Eastern Ganges and Megna. *Cuttupdeah*, *Masulab*, *Red-Crab*, and others, on the coast of Chittagong; *St. Martin's Islands*, at the mouth of the Dombak river; *Oyster Island*, *Salongo*, and *Flat Island*, at the mouth of the Aracan river; the *Terrible Rocks*, *Ramree* and *Cheduba* islands, all on the coast of Aracan.

THE MALDIVES are a coral chain of numberless isles and reefs, extending nearly 540 miles from N. to S. about 20 miles to the S.W. of Cape Comorin, between $7^{\circ} 6'$ N., and 40° S. lat., and $72^{\circ} 48'$ and $73^{\circ} 48'$ E. long. They are divided into 17 groups called *atollons*, which are generally either round or oval in form, and have navigable channels between them. The *atollon*, properly speaking, is a wall of coral which surrounds a cluster of islets, defending them from the force of the sea. Within the atollon there is always smooth water, and seldom more than 20 fathoms anywhere, nor even so much in many parts. The atollon in many places scarcely reaches the surface of the water; in others it forms a long sandy beach, perhaps less than six feet above the level of the sea, and the highest land in any of the groups does not exceed 20 feet. The islands indeed are just the higher portions of the coral banks, which have become covered with soil and vegetation; and (captain Moresby, after examining many of them, has found them to be composed entirely of sand and sandstone. All the larger islands are richly clothed with wood, chiefly palms; the greater number of them, however, are mere rocks, rocky shoals, and sand-banks flooded at spring-tides. The channels which separate the clusters cannot in general be passed by large vessels; but there are four much wider than the others, which may be navigated by the largest vessels. They are all, nevertheless, extremely dangerous, particularly at night. The islands are fertile in fruit and other commodities necessary for food, principally cocoa-nuts of a very small species, and millet, fowls and eggs. The atollons are wonderfully abundant in all kinds of fish, large and small, which furnish a principal article in the food and commerce of the natives; sharks are numerous. Throughout the islands there are no connected towns; the houses are built separately, each with its own garden and ground. A great trade is carried on among them, each atollon having something peculiar to itself. The Maldivians also trade with India, in their own boats, going and returning with the monsoons, exporting coir, oil, and all the other produce of the cocoa-nut tree their grand staple, cowries, salt-fish, turtle-shell, &c., and bringing back rice, sugar, hardware, cutlery, cloth, silk stuffs, cottons, tobacco, &c. The people are Mahometans, and are described as a mild inoffensive race, and very hospitable. They are all under the dominion of one chief, who, by the aid of viceroys, rules over all the groups of islands. Twice a year an embassy from the Maldives arrives at Point de Galle in Ceylon, to render homage to the British Government.

THE LACCADIVES are a cluster of 17 islands, due west of Malabar, between 10° and 12° N. lat., and 72° and 74° E. long., of which only eight are inhabited. The total population, about 6500, are a poor inoffensive race, all Mahometans of the Moplay sect, and subjects of the Bibi or princess of Cananore. There is no safe anchorage among the islands, and they produce nothing of any commercial value but the cocoa-nut. In the south-west monsoon all intercourse among them is interrupted, and their large boats are sent to the Malabar coast for shelter. The islands are all defended by coral reefs to the windward, except *Anderote*, the principal, which not only presents a bold front to windward, but that front is one side of the island itself, and not a reef, as is generally the case. The coral reef on which it is based projects to leeward, instead of windward, south-west being considered the prevalent direction of the wind.

Elicarpine Bank, $11^{\circ} 16'$ N. and $74^{\circ} 20'$ E., has only six or seven fathoms water, with a rocky bottom in some places, on which a large ship would be liable to strike in a heavy sea, 27 leagues from Mount Dilly.

South of the Maldives is situated the *Chagos Group*, consisting of some ordinary atolls, similar to those of the Maldives, some annular reefs rising to the surface, but without any islets on them, and some atoll-formed banks, either quite submerged or nearly so. Of the last kind the *Great Chagos Bank* is much the largest, being 90 nautical miles in length by 70 in breadth. It consists of a level muddy flat in the centre, between forty and fifty fathoms deep, surrounded by the steep edges of a set of banks widely arranged in a circle, and formed of sand with very little live coral. It seems to form altogether, in the words of Captain Moresby, "nothing more than a half-drowned atoll." (*Diwin on Coral Islands*, 39.)

THE SOUTH-EASTERN PENINSULA.

THIS is an extensive region, which lies to the south-east of India, and south-west of China, is possessed by several distinct nations, and divided into various independent states, but bears no general distinctive name. Some geographers have proposed to call it *India beyond the Ganges*, or the *Further Peninsula*; others, *Indo-China*; and Malte Brun calls it *Chin-India*. But these names are all liable to various objections; we shall therefore adopt another, which involves no theory or geographical impropriety, but simply expresses the situation of the country relatively to the rest of the continent of Asia, namely, *The South-Eastern Peninsula*. It forms one geographical region; and, as such, we shall first describe its general natural features, and then proceed to the particular description of the countries which it comprehends.

This region forms a large peninsula, projecting from the borders of India and China southwards into the Indian Ocean, and terminating in a long narrow promontory, which approaches within two degrees of the equator, and forms the southern extremity of the continent of Asia. The surface is occupied by several long ranges of mountains, which extend from north to south, forming between them wide valleys and maritime lowlands, which are drained and watered by large rivers, the remote sources of which are found in the northern mountainous region between India and China.

The principal rivers in the peninsula are the following:—The *IRAWADY*, which has its sources among the mountains to the eastward of Assam. The latest accounts trace them to numerous petty streams, from the mountains of the Laos and Yunnan, which are said to be covered with perpetual snow. In the summer of 1827 the Irawady was crossed in $27^{\circ} 30'$ N. lat. by Lieutenants Wilcox and Burlton, from Sudiya, at a place where it was only 80 yards wide, and which, according to the natives, was only 50 miles from its sources. Klaproth, however, on the faith of Chinese authorities, connects the Irawady with the Sanpoo of Thibet, by means of a river which the Chinese call *Pin-liang*, and which seems to be the same that is called by the Birman *Tapan-khyoung*; but Captain Hannay, who travelled from Ava to the borders of Assam in November and December 1835, describes the Taping or Japan, near old Bhamo, as not more than 150 yards broad, with only sufficient water to float a small boat; which seems to set at rest the question of its identity with the Sanpoo. So paltry a stream as this would form an insignificant channel for the mighty drainage of a thousand miles of the Himalayas and Kwan-lun.—(*Crawford's Embassy to Ava*, 11, 225; *Asiatic Journal*, November 1837.)—The Irawady flows southward through the Birman empire; and, in Pegu, divides into a number of branches, which water a large extent of country, and give important facilities to navigation. It enters the Indian Ocean by more than 14 mouths, in 16° N. lat., to the eastward of Cape Negrais, its delta forming a swampy coast of 170 miles from E. to W. It may be ascended to Ava at all seasons by vessels of 200 tons, and by native boats to Bhamo, near the frontiers of China; the length of its course is reckoned to be 1200 miles. It is in fact the great highway of the Birman empire, and the principal source of its fertility. Its principal affluent is the *Kyen-duen*, which joins it at Yandaho, about 50 miles below Ava.

THE SALUEN, THALUEN, THAN-LOUEN, THALOUYEN, or THALEAIN, appears to rise in Thibet, where it is known by the name of *Oir-chow*, and flows through Yunnan under the name of *Nou* or *Lou*. After leaving China it takes the name of *Saluen*, and separates part of the Birman provinces from those of Siam. It enters the Gulf of Martaban to the eastward of the delta of the Irawady, by two branches, which are divided by the island of Balu. The northern branch is so much obstructed by shoals as to be impracticable for shipping; but the southern branch has a width of seven miles, and the tide flows up the main stream and its affluents more than 100.

THE MEINAM appears to have its sources in Yunnan, from which it runs due south to the Gulf of Siam. In Siam it divides into several branches, which form a number of fertile islands. The lower part of the main stream is very winding; it has generally a depth of four or five fathoms, and is free from shoals, up to Bangkok. The mouth of the river is 5 miles wide, but the navigable channel does not extend more than half a mile, with a low swampy shore. Large vessels anchor out at sea, 8 miles off shore; the tide rises and falls seven feet, but is irregular, ebbing and flowing only once in the twenty-four hours. In the country of the Laos is a river called *Annan-myt*, which connects the Meinam with the river of Cambodia; but it seems to be a small stream, navigable only during the season of inundation. The Meinam is navigable for boats up to Changmai.

THE MAY-KUANG, MENAM-KONG, or MEKON, rises in Thibet, where it bears the name of *Dza-chou* or *Sa-chou*; it afterwards flows through Laos, and Cambodia into the Chinese Sea, by a number of channels, which form an extensive delta. In Yunnan it is called *Lan-thang*.

THE SAUNG or DON-NAI, in Lower Cambodia, has a course of $3^{\circ} 0'$ or 40° miles, passing the town of Saigon, and forming one of the finest navigable rivers in the world. The *Sang-koi* is the largest river of Tonquin; the *Che-sai* is another river of the same country; both of which fall into the Gulf of Tonquin.

CAVES.—Negrais, at the western mouth of the Irawady; *Romania*, the south-east point of the Malay Peninsula, forming the southern extremity of the continent of Asia; *South Cape*, *North Cape*, *Ro Ky Point*, and *Cape Patani*, on the east side of the peninsula; *Kwi Point*, on the west side, and *Cape Liant*, on the east side of the upper part of the Gulf of Siam; *Point Kamboja* or *Chruilin*, the south-east point of the gulf; *Cape St. James*, at the eastern side of the river of Saigon; *Cape Paduran*, *Cape Azearella*, *Cape Bantangan*, *Cape Turom* or *North Cape*, on the coast of Cochin-China.

ISLANDS.—*Balu*, at the mouth of the Saluen; *Tavoy*, *Great Canister*, *Cabossa*, *Tenasserim*, *Kings Torres*, *Donel*, *Clara*, *Twins*, *Susannah*, *St. Andrew*, *St. Matthew*, *Aladdin*, *Chance*, *Middle*, *Perforated*, *Syzer*, *Junk-seylon* or *Salang*, *Raja*, *Brothers*, *Panjang*, *Battoo*, *Pilgrims*, *Molica*, *Sanzaid*, *Telilon*, *Bouton*, *Trotto*, *Lancara*, *Laddas*, *Rat*, *Penang*, *Dindang*, *Sambelang*, *Jara*, *Callain*, *Arroas*, *Fishers*, *Pisang*, *Cocob*, all along the west coast of Tavoy, Tenasserim, and the Malay peninsula; *Tinggi*, *Aor*, *Pisang*, *Tiomam*, *Babi*, *Varela*, *Braba*, *Capas*, *Great Redang*, *Lantinga*, *Trintian*, *Rou*, *Lozin*, *Tantalem*, *Cava* or *Kroh*, *Carnam* or *Samai*, *Sancori* or *Phang-an*, *Bardia*, along the east coast of the peninsula; *Si-chang*, *Nuk*, *Kram*, *Phat*, *Rin*, *Sam*, *Sam-me-san*, *Kah*, *Samet*, *Kud*, *Chang*, *Kong*, *Dud* or *Kleok*, *Hasting's Archipelago*, *Panjang*, *Oubi* or *Oby*, on the east side of the Gulf of Siam; *Condore*, *Catrick*, *Sapata*, *Cicier de Mer*, *Cicier de Terre*, *Tre*, *Buffalo*, *Turtle*, *Canton* or *Callao Bay*, *Chameallao*, *Tiger's Isle*, on the coasts of Cambodia and Cochin-China, besides a great many others. Many of these islands have the word *Pulo* or *Kho* prefixed to their names, both of which mean *island*; the former in the Malay, the latter in the Siamese language. The only islands which deserve particular notice are, *Tantalem*, *Junk-seylon*, and *Penang*. *Tantalem* lies at the south-west side of the Gulf of Siam, is about 70 miles in length, and is separated from the mainland by a narrow channel, which, at the northern end, is bare at low water. The southern part of the island

is high, but the north is low and marshy. No part of it is cultivated or inhabited except that which contains a portion of the town of *Sungcora*. *Junk-ceylon* lies on the west coast of the peninsula, in the same latitude as Tantalem, 9° N. The name is a corruption of the Malay words *Ujung Salung*, headland of Ceylon. It is the most densely inhabited portion of this part of the Siamese territory, and is under a governor styled Phya, who has subject to his jurisdiction seven districts on the adjoining mainland. The island is of granite formation, and possesses very rich lead mines. It is nearly 40 miles long, by 12 or 15 in breadth, and is separated from the continent by a very narrow shallow channel. *Penang* will be noticed elsewhere. *Preparis*, 70 miles S. of Cape Negrais, is a small island 3 miles long, 8 in circumference, covered with wood and jungle, and surrounded for several miles by sunken reefs, which render it the dread of navigators. It is accessible only on the eastern side.

PEOPLE.—With the exception of the Malays, who possess the coasts of the peninsula which bears their name, and the negro tribes who inhabit the interior of the same narrow tract, the whole of this extensive region is inhabited by many tribes and nations of the same physical type, forming a sort of intermediate variety between the Mongolian and the Malay or Caucasian races, but more nearly resembling the first. They are, in general, shorter than the Chinese and Hindoos, but taller than the Malays; their average height is five feet three inches. Their lower limbs are well formed; their persons are robust, active, fleshy, and well proportioned, wanting, however, the grace and flexibility of their neighbours in the west; their complexion is a light brown, perhaps a shade lighter than that of the Malays, but much darker than that of the Chinese. The Siamese and the Kariens are the fairest, being of a bright cane colour; the Birmese and Peguans are of dark bamboo. The face is flat, with high cheek bones, presenting the form of a lozenge; the hair of the head is abundant, black, lank, and coarse; but the beard is scanty. Their languages exhibit the same characteristics of simplicity, poverty, and deficiency with the monosyllabic languages of China and Thibet. Three distinct languages prevail among them:—the Birmese, which is spoken in Ava and Aracan; the Siamese, in Siam and Lao; and the An-namense in Tonquin and Cochinchina. Pegu, however, is said to have an original dialect called the Mon, of which too little is known to determine its relation to the others. The sacred language of Birmah is the Pali; the Birmans have also borrowed the Sanscrit alphabet; their legal code is one of the commentaries upon the institutes of Menu; and in these and some other respects they discover their affinity to the Hindoos; while the Siamese, An-namense and Peguans bear a more strongly marked resemblance to the Chinese.

GOVERNMENT.—This region exhibits despotism in its greatest purity. As in China, the names of the Emperor of Birmah and of the King of Siam must not be pronounced during their lives by any of their subjects, under pain of death; and these dread names are confined only to a small number of favourite courtiers. In Birmah, Siam, and An-nam, every man above twenty years of age, with the exception of the priests and public functionaries, is obliged to devote not less than every third year of his life to the public service, either as a soldier or as a labourer. It is on this account that, among these people, emigration is considered as a treasonable offence, and equivalent to a theft of the prince's property. There exists, however, throughout these countries, in spite of the faults of their governments, a great degree of order and regularity. Civil and criminal justice are administered with more firmness and with less precipitation than in several other countries of Asia; the result of which is considerable security for life and property. The administrative forms among the Birmans and the Siamese are of interminable slowness; but in Cochinchina the activity of the government is equally vigorous and rapid. The Emperor of An-nam has called himself for a long time the vassal of China; and the King of Siam still recognises his vassalage to that empire; but this dependence is only nominal. The tribute which they pay is merely a formal acknowledgment, and every interference of China in the affairs of government is rejected with firmness. The savage tribes live under their respective chiefs, who are more or less oppressive; but some of them enjoy a considerable degree of liberty.

INDUSTRY.—The civilized portion of the inhabitants of this region have made little progress in the useful or the fine arts. They excel, nevertheless, in gilding, in a kind of varnished work, ornamented with rich mosaic in mother-of-pearl; in idols, from the smallest size to the most colossal, in certain kinds of gold and silver work, in common pottery, and the building of ships and boats. The Cochinchinese have made great progress in naval architecture and navigation, as well as in everything pertaining to the military art; a progress which they owe to the Bishop of Adran, and several French engineers. In 1787, the King of Cochinchina having been re-established on his throne by the efforts of the Bishop of Adran and the French missionaries, invited several officers and engineers of that nation, who formed very important establishments, and superintended the various improvements which were made in the naval and military arts. In other respects, the people of these countries are inferior; they cannot make cotton-cloth like the Hindoos, porcelain like the Japanese, or silk like the Chinese. The care which the Cochinchinese and Tonquinese take of these latter works gives them a great advantage in the useful arts over the more western nations. They make coarse cotton-cloth for their own use; also slight silk stuffs, which formerly, in the infancy of European manufactures, were eagerly sought for in our markets. The large towns are the principal seats of industry. In Birmah, agriculture is chiefly the lot of the Karyan, the Khyan, and other tribes who do not congregate in towns, and some of whom have not even ceased to be nomadic.

COMMERCE.—For several years past the commercial relations of the Europeans with the civilized people of the South-eastern Peninsula have become much closer than formerly. For upwards of forty years the Chinese have possessed themselves of all the commerce of Siam, of which they are the foreign merchants, the navigators, and the seamen; 140 junks, of 35,000 tons burden, sail yearly to China; and 40 or 50 to Singapore, which is also frequented by junks from Cochinchina. Besides the commerce carried on in Birmah by European ships, the Birman boats trade to a considerable extent, creeping in fine weather along the coast of Aracan to Calcutta. Commercial business of some importance is also carried on by land between the British and the Birman territories, between Birmah and China, and between China and Tonquin. But with Siam the Birmans have no commercial relations; an implacable hatred, and a state of continual warfare exist between the two states. Their respective frontiers have the appearance of a desert, and slavery awaits the unfortunate adventurer who passes his own frontier, and has the misfortune to fall into the snares which these people respectively lay for each other.

The principal articles of export are cotton, silk, tin, teakwood, eaglewood, and sandalwood, gum-lac, catechu, grain, salt, oil, sugar, ivory, pepper, birds' nests, precious stones, particularly rubies and agates, iron, and varnished works. The principal imports are cotton stuffs, wrought silks, cloth, opium, velvet, porcelain, tea, paper, lint, canvas, and a great number of European and Chinese manufactures. The principal inland trading places are, Ava, Prome, and Bhamo, in Birmah; and Ketschin Anam. The principal maritime trading places are Singapore, Georgetown, Rangoon, Bangkok, Chantiboun, Saigon, Hechan or Fafio, and Tournon or Hiansan.

DIVISIONS.—The whole region may be divided into six portions: 1. The *Birman Empire* or *Birmah*; 2. The *Kingdom of Siam*; 3. The *Empire of An-nam*; 4. The *Country of the Laos*; 5. The *British Provinces of Malacca, Tavoy, Tenasserim, Mergui, Malacca, Wellesley, Penang, and Singapore*; 6. The *Malay States of Quada, Perak, Selangore, Johore, Pahang, Kemamang, Tringano Calantan, and Patani*.

§ 1. *The Birman Empire*

Is situate between $15^{\circ} 45'$ and $27^{\circ} 20'$ N. lat., and 93° and 99° E. long.; being about 800 miles in length from north to south, 300 in breadth from east to west, and comprising an area of 200,000 square miles. It is bounded on the north by Assam, and the unexplored mountainous country farther east; on the south by the Gulf of Martaban; on the west by the hill countries of Cachar, Tipperah, Chittagong, and Aracan; and on the east by the Chinese province of Yunnan and the river Salween, which divides it from Siam. From the sea up to the parallel of $17\frac{1}{2}^{\circ}$, the country is low and champaign; from that point to 22° it is elevated and hilly; and further north, it is decidedly mountainous. It is watered by four of the great rivers already mentioned, the Salween, Setang, Irawady, and Kyen-duen, all of which have a southerly course, marking the character of the country as a plain, inclined from north to south. It contains a great many lakes; those in the lower provinces are numerous, but small; the province of Bassein alone contains about 127. The lakes of the upper country are much larger. Birman has about 240 miles of sea coast, extending from Cape Negrakis to the mouth of the Salween; the whole of which is low, marshy, and broken by at least twenty channels of rivers, or arms of the sea. In a mineralogical view, the Birman territory may be described as consisting of four divisions: 1. The alluvial plain formed by the mouths of the great rivers; 2. The country of secondary or tertiary formation, extending from between the 18° and 19° to near the 22° N. lat.; 3. The extensive mountainous tract of primary formation, lying to the north, the north-east, and the east of Ava, and the hilly regions which form the western boundary of the valleys of the Irawady and the Kyen-duen. The first region is remarkably destitute of mineral products; but the other two contain limestone and marble, gems, principally of the sapphire and ruby family, beautiful serpentine, iron, gold, silver, copper, tin, lead, antimony, amber, coal, petroleum, nitre, natron, and salt. The most remarkable, however, of these is the petroleum or mineral oil, which is procured from wells sunk in a bed of blue clay, about three miles from the town of Re-nan-k'hyang (smelling-water rivulet), on the east bank of the Irawady, in lat. $20^{\circ} 27'$ N. The wells occupy a space of about sixteen miles square; the oil, when first obtained from the well, is thin, but thickens by keeping, and in cold weather coagulates. Its colour is a dirty green, like that of stagnant water; it has a pungent aromatic smell, which is disagreeable to most people, and, in burning, it emits an immense quantity of black smoke, which soils everything within its reach. It is, however, so much cheaper than any other kind of oil, that it is universally used by the Birman for their lamps, wherever there is water to convey it. The annual produce of the wells is estimated at twenty-two millions of viss, each 3.65-100 pounds avoirdupois. Among the useful productions, the teak-tree holds a distinguished place; the forests are very extensive, and it appears to be very generally diffused throughout the high lands of the kingdom; there are also oaks and other valuable trees, mimosa, catechu, and others of the same family. The forests also furnish varnishes and stick-lac. Birman agriculture embraces rice, maize, millet, wheat, various pulses, palms, sugar-cane, tobacco, cotton, and indigo. Rice is the great object of husbandry throughout the kingdom. The useful quadrupeds domesticated by the Birman are the ox, the buffalo, the horse, and the elephant; the last of which, however, appears to be merely an object of royal luxury and ostentation. The hog is also domesticated, but being neglected, its habits are disgusting and offensive in the highest degree. The dog is seen, but uncared for. Cats are numerous, and dexterous in destroying vermin. The ass, the sheep, and the goat, though bearing native names, are little known in the domestic economy. Of poultry, only a few common fowls and ducks are reared. Wild animals and game are numerous. The most remarkable quadrupeds are the elephant, rhinoceros, hog, deer, ox, buffalo, bear, otter, tiger, leopard, wild and civet cats. The elephant is found in all the deep forests of the country, and is peculiarly abundant in Pegu. Hares, wild cocks, pheasants, partridges, quails, and snipes are also abundant; geese and ducks are numerous in the upper provinces. The Birman territory is but very partially cultivated, and thinly peopled by a race of inhabitants who have made little progress in useful industry. The financial system of the government is rude, barbarous, and inefficient beyond what can easily be believed. No regular land revenue is collected on account of the sovereign, the greater part of the lands being given away in fief to members of the royal family, to public officers, and to favourites, instead of pensions or salaries, and a mere trifle is reserved for the king. Scarcely any disbursements in the form of money are ever made from the treasury, as no salary is paid to any public officers from the highest to the lowest; those who have no lands live as they can, on fees, perquisites, and extortions. Even the government itself does not encroach upon its board, except on very extraordinary occasions, and may be said to depend on the daily supplics. If an embassy is to be sent to a foreign country, a contribution is levied for the purpose; if an army is sent on an expedition, the necessary expenses are raised on the occasion; if a temple is to be built, the same thing is done; and so in all other cases.—(*Crawford*, II. *Appendix*, 23.) Few countries have had their population so variously estimated. Old geographers stated it at 30,000,000; Syms made it 17,000,000; Cox afterwards reduced it to 8,000,000; and Balbi allows only 3,700,000. The chief woongee at Ava informed me that the last census gave a total of 300,000 houses. After the most careful inquiries, I am led to put down the number of the inhabitants to whom the Birman is vernacular at 3,000,000. The Shyans are probably three millions more, and, with other subsidiary tribes, bring up the total population to about the estimate of Cox.—(*Malcolm's Travels*, I. 208.)

Birman is inhabited by many distinct nations or tribes, of whom so many as eighteen have been enumerated. The most considerable of these are the proper Birman, the Peguans or Talains, the Shans or people of Lao, the Cassay or Kathey, the Zabaing, the Karian or Karens, the Khyans, the Ys, and the Lawa, which are respectively numerous and civilized, nearly in the order in which they are here mentioned. Though differing in language, and often in manners, customs, and religion, they have the same physical type, which is common to all the tribes that possess the countries between India and China. Widely different from the Chinese and the Hindoos, they approach more nearly to the Malays, from whom, nevertheless, they differ so considerably, that even a stranger may distinguish them without difficulty. The Birman may be described as of a short, stout, and active, but well proportioned form; their complexion is never of an intense black, but is commonly brown, or resembling dark bamboo. The hair of the head is black, coarse, lank, and abundant. There is a little more beard, and generally more hair on other parts of the body than among the tribes of the same race to the south, as the Siamese and the people of Lao. The proper Birman inhabit a dry and elevated country; but climate and other physical circumstances appear not to produce any material difference between them and the other tribes of the empire. The Peguans or Talains, who inhabit the alluvial plains, are, however, alleged to be a more robust and active race than the Birman. The Birman are greatly inferior to the Hindoos in civilization, and still more so to the Chinese. They are considered by Mr. Crawford to be nearly on an equality with the Siamese; or, more nearly still, with the people of Java; they are, however, more advanced than the other civilized inhabitants of the eastern archipelago. Their laws and political institutions, such as they are, are commonly better than those of the Indian islanders; yet the latter are superior to the Birman in enterprise, courage, personal independence, and even morality. In one respect they agree; namely, in the comparative absence of religious or political bigotry, and the freedom from unsocial customs. The practice of tattooing, or staining the skin of an indelible tint, obtains among the Birman and Talains, and has been followed more or less by the nations whom they have subdued.

the Kyens, the Aracanese, and the Shans. Another practice, which seems to be universal with both sexes, and with all the races which inhabit the Birman territories, is that of boring the lobe of the ear, so as to make a very large and unseemly hole, into which is stuffed a gold or silver ornament, or a piece of wood, or a roll of paper. The Birmans are extensive consumers of the betel mixture, and the smoking of tobacco is universal. With respect to dress, the Birmans are well, and not unbecomingly clad; but much of the body is left naked; and the texture and pattern of the fabrics worn, though substantial and durable, are coarse and homely. The dress of the priests differs entirely from that of the laity. The head is not only without covering, but is, or ought to be, closely shaved, and its only protection against the sun is a small fan of palmyra leaf. The colour of the priestly costume is yellow, which it would be deemed nothing less than sacrilege for any one else to use; so peculiarly sacred, indeed, is this colour held, that it is not uncommon to see one of the people pay his devotions in due form to the old garment of a priest hung out to dry, or to one after being washed. A superficial education is very common, and there is probably not more than one man in ten who is unable to read. This is chiefly owing to the institution of monasteries, and to its being a religious duty of the priests to instruct youth; but their science is of the lowest description; and they have an intense passion for alchemy, the object of which is to change the baser into the more precious metals.

The uniformity of the physical structure of the Birmans extends in an equal degree to the development of their moral character. The face of the Birman is without intelligence; his mouth is large and sensual, the teeth prominent, and the nose flat. Altogether the national cast of countenance is vulgar in the extreme, and so rigid that the passions have scarcely the power of relaxing it. Early taught by experience to study precaution, and practise dissimulation, candour and sincerity are unknown to them, and it is a national boast that the Birmans are without equals in their adroitness in concealing the truth. Happy or sad, their physiognomy announces neither pleasure nor pain; and even when questioned on the simplest topic they return an indirect reply. Artifice and circumvention are resorted to as the legitimate means of attaining their ends, and the man who should employ neither deceit nor stratagem in the pursuit of his object would be looked upon as little removed from a fool. They are, however, a very lively and talkative people; very vain, and proud of their affected superiority over every other nation; obstinate, suspicious, and addicted to many vicious habits, particularly the smoking of opium and gambling. The diversity of talent, the variety of appearance, and disparity of form, so conspicuous in individuals of the civilized countries of Europe, are scarcely to be found in Birmah. Every person conforms to the habits of the mass; and in respect of fortune the whole community are more upon a level with each other than any people who dwell in cities. Each has the same opinion of himself, of his country, and of foreigners in general. The national characteristics are perhaps less strongly marked in the priests, owing to their life of study and devotion; but these are not perpetuated, in consequence of their celibacy. Except in remote villages the people are on a perfect equality in respect of education, a circumstance which is accounted for by the fact that they are all instructed in the same routine, which embraces reading and writing in the vernacular tongue, and a smattering of Pali, collected from elementary books. As the colleges have no direct revenues, the priests are dependent for subsistence and clothing on the freewill offerings of the people; but usage has imposed on parents the duty of feeding the clergy of the college in which their children are educated. A large number of scholars forms, therefore, the best endowment of the brotherhood, a fact which may account for the vehemence with which they exhort their hearers to send their children to school, and denounce the negligent in this respect as the enemies of religion.

With respect to the Birmans it is obvious, says a late writer, to the most casual observer, that the country is gradually falling to decay. While the people of India are pressing forward with rapid strides, in defiance of the trammels of caste, scarcely glancing behind them, and then only to smile at the errors of their ancestors, the Birmanes are receding from twilight into darkness, gathering their wisdom from books fourteen hundred years old, turning the fables of their forefathers into truths, pausing in puerile admiration over the knowledge and exploits of their ancestors, and lamenting their own fallen condition; the government, meanwhile, regardless of the value of life, draining an already half-peopled country of its inhabitants, towns dwindling into villages, and villages disappearing altogether; communication becoming less frequent; the people dispirited by oppression, yet passionately attached to the soil, anxiously awaiting the fulfilment of the prediction which promises them the restoration of their lost happiness and power, under a wise and just dynasty. The wars which had prevailed since the twelfth century, at one time between the Shans and the Birmans, at another between the Siamese and the Peguans, and at a later period between the Peguans and the Birmans, had almost stripped those regions of their inhabitants, when the warlike propensities of Alangpora and his successors gave the final blow to the prosperity of Birmah. They robbed their cities of every able-bodied man, and carried their arms into Siam, Aracan, Assam, and Caesay, exterminating the people wherever they came, till the whole region from the 95° to the 100° of longitude, and from Cape Negrais to the tropic, became almost untenanted by human beings. It is now overrun with jungle covering the ruins of forts and temples, which serve to mark the spots that were crowded in former times with a dense population, whose descendants are now gathered in scanty groups along the banks of their magnificent rivers. But they have lost the enterprise and valour which rendered them the terror of their neighbours, and retain only the vanity, obstinacy, and restlessness by which they have been always characterised. The degenerate Birmans seldom engage in any pursuit which requires much mental application; their books on religion and science are translations from the Pali; their poetry is confined to odes and songs of love and war; their knowledge of music is very limited; they are unacquainted with chemistry, and believe in the transmutation of metals. On the other hand, they are acquainted with vegetable physiology, and the sexes of plants; they can work in gold with considerable taste; they can weave intricate patterns, which even in England it has been found difficult to imitate, and they can carve in wood with tolerable ingenuity; but, on the whole, they do not excel, or even attain mediocrity, in any art which demands elaborate manipulation; and the few manufactures which they still possess, flourished among them in higher perfection at the moment of our first acquaintance with them than they do at present.—(*Jos. Smith, Asiatic Journal, April 1811.*)

Among the Birmans and the Talains there may be said to exist seven classes of society distinguished by their privileges or employments; namely, the royal family, the public officers, the priesthood, the merchants, or "rich men," as they were called, the cultivators and labourers, slaves, and outcasts. The only class of public officers which can be called hereditary are the Thanwas or Saubwas, the tributary princes of subjugated countries. The rest of the chief officers are appointed and dismissed at pleasure; and their titles, rank, and offices, and very often even their property, do not descend to their children. Any subject, who is not a slave or outcast, may aspire to the first office in the state, and the highest offices are really often held by persons of very mean origin. The priests called Phungyi or Ra-han, are bound to a rigid celibacy, interdicted from all employment but their own especial calling, and particularly from intermeddling with politics; but they are secured from labour by the voluntary contributions of the people. As a body they are not surpassed by the clergy of many more civilized countries, in the extreme simplicity and virtuous manner of their life. Existing by the voluntary gifts of the people, their best interests are involved in the observance of an irreproachable life, their sermons are generally in praise of charity, while, however, the general doctrines of their religion are not left unexplained. The priests form an important and numerous order; and along

with them may be classed the *Thi-la-shau* or nuns, who are less numerous, and are generally old women. There are also occasionally some young women among them, who forsake the sisterhood as soon as they can procure husbands; neither priests nor nuns being bound to continue in their profession. The women generally are neither immured nor veiled, nor are they withdrawn from the company and conversation of men; but they are treated as mere slaves, all laborious duties being devolved upon them; they also manage most of the transactions of buying and selling. The habitations throughout the country are made of slight materials but are commodious. Bamboos fixed in the ground, and tied with strips of rattan compose the outline, and serve as the supports of the building; the walls are covered with mats, and the roof thatched with grass. These slight structures are sufficiently comfortable, but they are exposed, by the nature of their materials, to frequent conflagrations. The temples and monasteries are splendid structures, being covered profusely with carvings and paintings, varnished and gilded, but the materials consist principally of brick and mortar. Through the mischievous effects of bad government the population and prosperity of the country have long been and still are rapidly declining; the whole population, it is believed, does not amount nearly to three millions.

The Birman empire consists of two great divisions—*PEGU*, which comprises all the sea-coast, and the mouths of the rivers; and *Ava* or *Birmah*, which comprehends the upper country, and is the seat of the dominant people. For administrative purposes, the empire is divided into provinces or vice-royalties, of very variable extent. The most frequent civil division appears to be that into *myos* or townships, which are reckoned to amount to 4600. The towns, however, properly so called, and some of which are indeed little better than large villages, do not exceed thirty-two. Of the seven principal towns, Mr. Crawford gives the following conjectural estimate of the population;—*Ava*, *Amarapura*, and *Sagaing*, with their suburbs and districts, 334,200; *Rangoon*, 12,000; *Prome*, 8000; *Bassein*, 3000; *Martaban*, 1500. *Ava*, the capital of the empire, stands on the left bank of the *Irawady*, in lat. $21^{\circ} 50' N.$, and long. $96^{\circ} E.$ The native popular name of the city is *Angua* (a fish pond), which has been corrupted by the Hindoos and Malays into *Awa*, and by Europeans into *Ava*; its official name is *Ratnapoura* (Jewel town.) *Ava* is surrounded by a brick wall $1\frac{1}{2}$ feet high, ten feet thick, and $5\frac{1}{2}$ miles in circumference; the houses are in general mere huts, and are thatched with grass. Some of the dwellings of the chiefs are constructed of planks, and tiled; but there are probably not half-a-dozen of houses built of brick and mortar. The houses are thinly scattered, and large spaces are even wholly destitute of habitations. The town contains many temples, the tall white or gilded spires of which give in the distant view a splendid and imposing appearance. The capital is not confined to *Ava*, but embraces likewise *Sagaing*, a straggling town of mean houses on the opposite bank of the river, and *Amarapura*, with the large districts attached to the three, making together an area of 288 square miles. *Ava* was the ancient capital of the country; but *Alompra*, the founder of the Birman empire, built the new city of *Amarapura* (town of immortality) a few miles to the eastward, which became and continued the capital till 1822, when *Ava* was restored to its pre-eminence by the new king, who then ascended the throne. On the 23d March 1839, *Ava* was visited by one of the most terrible earthquakes ever known in that part of the world. The three cities of *Ava*, *Amarapura*, and *Sagaing*, were reduced to vast piles of ruins; every thing built of bricks, houses, monasteries, temples, and the city walls, were levelled with the ground; and of the immense number of pagodas, not one was left entire. The shock was felt throughout a space of 1000 miles southward from the borders of China, embracing the most populous parts of the empire; not a single pagoda, temple, or other brick building being left standing. But comparatively few people perished, their escape being owing to their living chiefly in wooden houses or bamboo huts.—(*Silliman's Am. Journal*, XXXVIII. 385.)

Rangoon stands on the north or left bank of the eastern branch of the *Irawady*, 26 miles from the sea. It is a poor and decayed town; but is the chief, and, indeed, almost the only port for foreign trade in the Birman dominions; for which purpose, its situation is extremely convenient, from being so near the sea, and having an uninterrupted communication at all seasons, by the river, with the upper provinces. The tide rises 18 feet at neap tides, and at spring tides from 25 to 30. About two miles from the river is the great temple of *Shwe-Dagong*, of the shape of a speaking trumpet standing on its base, which is built of brick and mortar, and richly gilt all over. Its height is about 278 feet, and it is really a noble object. This temple is the most famous religious edifice in the Birman dominions, a celebrity which it owes to the legend which supposes it to contain eight true hairs of *Gautama*, brought as a trophy from western India many centuries ago, by two merchants. It is, in fact, what is not common in this country, a place of pilgrimage, and is frequented by many strangers. Nearly 60 miles to the north is *Pegu*, the ancient capital of the country when a separate kingdom, but now almost entirely deserted. It contains the famous temple of *Shoemadoo*, or the golden supreme, a structure of the same kind as the *Shwe-Dagong* at *Rangoon*, and 331 feet high. About 15 miles east of *Rangoon* is *Syriam* or *Syrian*, formerly one of the chief ports of the kingdom of *Pegu*, and the seat of a great trade, before its harbour was shut up by the Birman conquerors.

Prome, written by the Birmans *Pri*, but pronounced *Pyi*, stands on the east or left bank of the *Irawady*, about 156 miles N.N.W. from *Rangoon*, in a narrow plain between the hills and the river; it is a very ancient capital, having been founded, according to the Birmans, about 443 years a.c. It is a thriving place, and fully as populous as *Rangoon*. About 70 miles E. by N. of *Prome* is *Tango* or *Tanou*, the representative of the *Tangou* of the 16th century, the capital of a dynasty which caused memorable revolutions in the western and central parts of this region. It is said to be a place of considerable traffic and population.

Bassein or *Persaim* is a sea-port town, on the left bank of the most westerly branch of the *Irawady*, about 70 miles from the sea.

Martaban, on the north bank of the *Saluen*, at the point where the river separates into two branches, is built at the foot of a long steep ridge, and consists of mean houses, which are raised from the ground on posts. It has many old substantially-built monasteries, and several temples, one of which is 150 feet high, and is of a more chaste design than usual.

Bhamo or *Edmoo*, on the *Irawady*, 180 miles N.N.E. of *Ava*, near the junction of the *Tapan* or *Pinlang* or *Bhamo* river, which flows from China, contains about 14,000 inhabitants, of whom one-tenth are Chinese. The surrounding country is one of the most prosperous and wealthy portions of the empire; and a great trade is carried on between *Bhamo* and *China*. *Mo-goung* or *Mong-maoring*, is a large fortified city, on a branch of the *Irawady*, about lat. $25^{\circ} 20' N.$, inhabited chiefly by Shyans, Chinese, and Singphos. In the vicinity are famous amber mines, which attract merchants from *Yunnan*, *Munipore*, and other places.

§ 2. The Kingdom of Siam

Is composed of *Siam Proper*, a portion of the country of the *Laos*, a part of *Cambodia*, and the *Malay States* of *Quedah*, *Patani*, and *Ligor*. It is situated between 5° and $29^{\circ} N.$ lat., and 97° and $105^{\circ} E.$ long., measuring about 900 miles in length from north to south, and from 50 to 400 in breadth, including an area of 220,000 square English miles, with a population of about 2,790,000. Its boundaries are: north, *Laos*; south, the *Gulf of Siam*, and the *Malays*; east, *Annam*; west, *Birmah*, the *British Birman provinces*, and the *Bay of Bengal*. The greater part of the country is mountainous; but it contains

also fine valleys, and, near Bangkok, a rich alluvial plain, watered by the Meinam. The soil is fertile, yielding in abundance fruits, dyewoods, medicinal gums, and timber; but it is badly cultivated, and thinly inhabited. Besides the Meinam, it is watered by many small rivers. The eastern coast of the gulf is skirted with innumerable islands, the smaller of which are uninhabited. On the shore of the Bay of Bengal, the Siamese territory extends 260 miles, including a great many islands, some of which are of considerable size, as Junk-eylon, Panjang, Langkawi, Trutao, and Boutung. This part, however, of the kingdom is a mere wilderness, with only a few places inhabited. Siam Proper consists of the valley of the Meinam, which, at the southern extremity, does not exceed 60 miles broad; but it extends inland about 360 miles, and is bounded on both sides by high mountains. The climate and natural productions are much the same as those of Birman. The government is a despotism of the most absolute kind. The name of the sovereign is confined only to a few individuals; in public he is mentioned by such epithets as these: the sacred lord of heads; the sacred lord of lives; the owner of all; lord of the white elephants; most exalted lord; infallible and infinitely powerful. Even the members of his body are spoken of in terms of adulation; everything belonging to or attached to his person is styled golden; to visit him is to approach to his magnificent majesty's golden feet, to speak in his golden ear, &c. The country is divided into districts; each of which is governed by a minister appointed by the king, aided by a governor and other officers; and the more distant provinces are placed under viceroys or rajahs. There appears to be no written law. All the people, except the Chinese, European, and American residents, are virtually slaves, or in a state of slavery, being obliged to labour on public works one month out of every three or four, according to royal pleasure, in building temples or junks, making roads, or performing any other work; for all which they receive no compensation but the glorious privilege of living in Siam or Thai, literally the free country. There are, besides, a number of slaves, who consist of captives taken in war, and debtors. The religion of Siam is Buddhism. The talapoins or priests, who are supposed to amount to 100,000 at least, are maintained by daily contributions from the people, by annual presents from the king; and by valuable gifts which they receive at funerals. They assemble daily in the temples to repeat prayers which they do not understand, as they are in the Pali language, with which very few are acquainted; they relieve the people from all devotional exercises and holy acts, except that of daily bestowing upon themselves boiled rice, and other offerings. For three months of his life every Siamese is obliged to serve as a talapoin, and the yellow robe is generally assumed at twenty years of age. They may quit when their term is expired; but if they take up the robe a second time, it must be retained for life. The talapoins are of different ranks or classes, and have one supreme chief, like the pope, who has under him various priests, corresponding to cardinals, archbishops, bishops, and other dignitaries; the whole system bearing a very strong resemblance to that of popery. The *wats* or temples are numerous and costly, many of them are indeed magnificent; they occupy the best situations in the kingdom; and are the residences of the priests, and the places of education for all male Siamese.

The Siamese belong to the Mongolian variety; their average height is five feet two inches. The lower limbs are stout and well formed; but the body is long, and consequently the figure is not graceful; the shoulders are broad, and the muscles of the chest well developed; the neck is short, and the head in fair proportion. The hands are large and the complexion of a dark olive, but not jetty. Among females of the higher classes, who pass their time generally within doors, the skin is of a much lighter hue; in some instances it might be called a very dark brunette. The forehead is narrow at top; the face flat, the cheek-bones broad, and the chin narrow, so that the whole is rather lozenge-shaped than oval. The eyes are remarkable for having the upper lid extended below the under, at the corner next the nose, but it is not elongated like that organ in the Chinese or Tartar races; the eyes are dark or black, and the white is dirty, or of a yellowish tint. The nostrils are broad, but the nose is not flattened like that of an African. The mouth is not well formed, as the lips project slightly; and it is still more disfigured by the habit of chewing arcaea-nut. The hair is jet black, stiff and coarse, almost bristly, and is worn in a tuft on the top of the head; the rest of the head being shaved or clipped very close. A few scattered hairs grow upon the chin and upper lip, which are usually plucked out. Though active, the Siamese are not a warlike people; they possess an inordinate self-esteem, which places them above all nations, except the Chinese, whom they acknowledge as superiors, and to whom they have sometimes paid tribute, and the Birmans, whom they rank as their equals. All their superfluous wealth they devote to the building of temples, to obtain what they believe the prospective salvation of their souls. They are mean, rapacious, and cruel, suspicious, vacillating, and procrastinating. Cringing and servile in the extreme to their superiors, they are arrogant, haughty, and tyrannical to their inferiors. They have, however, the commendable quality of filial affection, which is maintained through life with punctilious exactness. The son never stands in the presence of his parents, nor takes a seat on a level with his father. Even his magnificent majesty humbles himself once a month, and appears before his mother on his knees and elbows. The Queen dowager (when there is one), and Talapoin Pope, are the only two individuals in Siam who have no superiors. The Siamese call themselves *Tai*; the Shyans denominate them *Tai-yai*, or the great Tai. By the Birmans Siam is called *Yudia*, from the name of its former capital, and the people are designated *Yudia-shan* or *Yudias*. The Assamese, Shyans, and Siamese, are evidently sprung from a common stock.

Though larger than France, Siam does not contain one-tenth of the number of inhabitants. On comparing the births and deaths for a period of ten years, the population appears to decrease at the rate of one-ninth every year; and in less than a century the land would consequently be a desert, did not the constant influx of foreigners, for the purposes of trade, supply the deficiency. Siam already contains nearly as many Chinese as Siamese. Several causes concur in producing this depopulation; as polygamy, the great number of the talapoins, the extreme filthiness of the people, and their habit of living on every sort of unwholesome food. The Siamese have feeble constitutions; the least bodily exertion fatigues them; and a Chinese physician will distinguish a European among a hundred Asiatics, merely by feeling his pulse and without looking at him. The Siamese at present possess that portion of Cambodia which extends along the Maykuang river between 12° and 14° N. lat.

BANGKOK, the capital, is situated on the Meinam, about 20 miles in a straight line from the sea, but 40 by the course of the river. It is irregular in plan, and everywhere intersected by canals; the streets are narrow and dirty; the greater part of the houses consist of miserable bamboo huts; but there are several richly gilt temples; and the palaces of the king and his grantees are large buildings, in the Chinese style. Many of the people live in large boats ranged along the sides of the river and canals. Bangkok is the principal seat of the commerce of Siam; and the row of junks generally extends for more than two miles, riding at anchor in the middle of the river, where they often remain for months retailing their cargoes. The population, according to the government census in 1828, amounted to 401,300. Mr. Crawford, however, makes it only 50,000; Mr. Malcolm took some pains on the subject, and is of opinion that the city and immediate suburbs contain at the most about 100,000 souls. Within the walls, he says, there cannot be more than 4000 people.—(*Travels*, II. 139.) The climate of Bangkok may be called hot, but is as pleasant and salubrious as that of any city of the east. The thermometer ranges about 13°; the highest mean temperature of the hot season, 86° 33°. *Aputhia*, properly *Si-nu-thi-ya*, also named *Siam* by the old European geographers, the ancient capital, stands on an island of the Meinam above Bangkok, and is said to be nearly as populous. *Prabhat*, 160 miles N. by E. of Bangkok, contains an impression of Buddha's foot in a rock, which is the

grand object of pilgrimage among the Siamese. The only other places worthy of notice are:—*Pak-nam*, at the mouth of the river, where it is 5 miles wide. *Chantibon*, on a river which falls into the east side of the gulf, 12 hours from the sea; *Ligor*, *Talang*, and *Siangora*, considerable towns on the east side of the isthmus of the Malay peninsula. The district of Chantibon and of the neighbouring town of *Tungyai*, are the proper country of the people called *Chong*, and the only part of the kingdom which produces black pepper.

§ 3. *The Empire of An-nam*

Comprises *Tonquin* or *An-nam* proper, *Cochin-China*, the eastern and southern parts of *Cambodia* or *Kambuja*, and several islands in the Chinese Sea, along which it extends upwards of 12,000 miles. It lies between $8^{\circ} 40'$ and $23^{\circ} 20'$ N. lat., and between 105° and 109° E. long. being bounded on the north by the Chinese provinces of Quangtung, Quangsí, and Yun-nan; on the west by Laos and Siam; and on the south and east by the ocean. It comprises altogether an area of about 120,000 square miles; and a population of 10,000,000. The country is naturally divided into two long narrow stripes by a range of mountains which extend in a direction parallel to the coast, from the borders of China to the mouth of the Maykuang; *Tonquin* and *Cochin-China* being to the east of the range, and *Cambodia*, to the west. *Cambodia* occupies the lower part of the valley of the Maykuang, with the alluvial plain or delta at its mouth, and a small portion of the coast of the Gulf of Siam. It is said to be a fertile champaign country; but no geographical details respecting it are known. *Cochin-China* consists of a long narrow strip of land, extending more than 600 miles in length along the Chinese Sea, but nowhere exceeding 150 in breadth. It is in fact a series of small transverse valleys divided by so many spurs from the long range of mountains which forms its western boundary. The coast is beautiful and grand; the shore is indented with numerous bays; and the mountains, which rise several thousand feet in height, are broken into innumerable valleys and ravines. *Tonquin* expands to a much greater width than *Cochin-China*, and consists chiefly of a large alluvial plain, watered by the Sang-koí and other rivers. It is the only part of the empire that is rich in metals; and produces large quantities of gold, silver, copper, and iron. The climate is generally fine and healthy, the heat being tempered by the sea breeze; but a material diversity of climate prevails in the different provinces, arising from difference of physical aspect, and geographical situation. In *Cambodia* the seasons follow the same course as in Malabar, Bengál, and Siam; the rains commence about the end of May or beginning of June, and continue till September. In *Cochin-China*, the seasons are reversed; the dry season prevails during the south-west monsoon, and the wet season during the north-east monsoon; a change which is occasioned by the lofty mountain border which intercepts the monsoons; the rains commence in October and continue till March. In *Tonquin* again, the seasons are the same as in *Cambodia*. In both *Tonquin* and *Cochin-China* the heat of summer and the cold of winter are excessive; at Huế the greatest heat of summer has been reported to be 103° , and the greatest cold of winter 57° Fahrenheit. The forests of *Cochin-China* produce a variety of scented woods; true cinnamon, teak, ironwood, cedars, walnut, cocoa, areca, betel, bamboo, rattans, ebony, and most of the products of British India. Tea also grows in great abundance between 10° and 16° N. lat., which serves for the consumption of the lower orders; but the chiefs prefer tea from China, to which the native produce is somewhat inferior, owing to the improper manner of cultivating it. *Cambodia* produces gamboge, cardamums, aulseed, areca, indigo; the central provinces, pepper and two sorts of sugar-cane; *Tonquin* yields many kinds of varnish trees, areca palms, &c. Cotton, rice, and the mulberry-tree are almost universal. There is also a great variety of fine fruit; ginger, and spices of various kinds are also indigenous. The principal animals are the elephant, rhinoceros, tiger, leopard, buffalo, bear, horse, deer, goat, monkey, baboon, dog, cat; peacocks, parrots, and a variety of other birds of the richest plumage, curlews, plovers, and aquatic birds of all kinds. Alligators infest the larger rivers; the hooded snake, and several other noxious reptiles infest the land; the seas abound with an inexhaustible supply of fish, and afford subsistence to a large portion of the population. Mosquitoes and other insects abound in great multitudes.

The people consist of several races. The *Tonquinese* and *Cochin-Chinese* are a short, squat, and ill-favoured race; in features nearly resembling the Malays, but without any indication of ferocity in their expression. On the contrary, says Mr. Crawford, their countenances exhibit an air of cheerfulness and good humour; the women appear to be fairer and handsomer than the men. Their hands, arms, and feet are well formed, and the carriage even of the lower orders is graceful. They are much in the same state of civilization and comfort as their neighbours. Besides these, the empire contains people of several other races:—The *Cambodians*, who call themselves *Kammen* or *Cummin*, speak a language distinct from those of all their neighbours; but, in physical form, manners, laws, religion, and state of civilization they bear a close resemblance to the Siamese. The people of *Champa* or *Taioupa* on the south-east coast, between *Cambodia* and *Cochin-China* speak a peculiar dialect, differing essentially from the languages of both *An-nam* and *Cambodia*, and profess a species of Buddhism widely different from the religion of their neighbours, and more resembling that of the Jains in Hindústan. The coast of their country is now principally occupied by *An-namese*. The *Moi* occupy a strip of mountainous country, between *Lao* and *Cochin-China*, extending about 300 miles in length by 50 or 60 in breadth; but little more respecting them is known than their name, and that they are an uncivilized but inoffensive people. All these are indigenous races. The strangers settled in the empire consist of Malays, Portuguese Christians, and Chinese. The Malays are confined to the east coast of the Gulf of Siam, between the latitudes of 11° and 12° ; they retain Mahometanism and speak the Malay tongue, intermixed with a number of *Cambodian* and *Champa* words. The Portuguese are a mixed race who appear to have migrated from Malacca about the middle of the seventeenth century, and are found in different places along the coast. They are hardly distinguishable from natives of the country who have embraced Christianity. These Christians are among the poorest and most abject part of the population. The Chinese form the most numerous class of strangers; but their total number will not be overrated at 40,000, of whom 25,000 are engaged in working the iron, silver, and gold mines of *Tonquin*. Politically, the empire contains but two classes—the people, and the nobility or mandarins. The highest offices are open to candidates of every class, and very lately, all the great mandarins, the chiefs of the five columns of the empire, had been common soldiers. The son of a mandarin of the first rank is entitled only to the second rank; if he is in actual employment as a mandarin, his children belong to the third class; but if he has not been employed, his children return after his death to the ranks of the people.

The empire is at present divided into three great civil divisions; *Cambodia* and *Tonquin*, which are governed by viceroys; and *Cochin-China*, which is under the immediate government of the emperor himself. The whole territory is subdivided into twenty-two provinces, of which six are in *Cambodia*, seven in *Cochin-China*, and the remainder in *Tonquin*, the last of which is the most populous and the most valuable division of the empire.

Hue, in *Cochin-China*, the capital, and the residence of the emperor, is a large and strongly fortified city, situate nine miles from the sea, upon the banks of a wide navigable river which falls into the Gulf of *Tonquin*, in lat. $16^{\circ} 45'$ N., long. $106^{\circ} 32'$ E. It is of a square form, about six miles in circumference, surrounded by a rampart 30 feet high, which is cascd with brick, kept in excellent order, and protected by bastions all in the European style. One side is washed by the river, and the other three by a wide and deep canal. The interior is laid out in squares; but the town is rather paltry. The

palace is surrounded by handsome barracks; the citadel is a small quadrangular building, with strong and lofty walls; and the city, it is said, would require a garrison of 40,000 men for its defence. The population is believed to amount to 30,000. *Turon*, 60 miles S.E. of Hue, stands on a river which falls into a magnificent bay safe and most commodious for shipping, measuring five miles by two, and completely land-locked. *Quinhone*, one of the largest towns in the province, 15 miles from the sea, is situated on a navigable river which falls into a bay of the same name, 200 miles S. by E. of Hue; and rather more than 100 miles farther south, are the two magnificent harbours of *Campaigne* and *Nhatrang*, the latter of which is one of the naval arsenals of the empire, and is strongly fortified in the European style. In Tonquin the only place of importance is *Ketsuo* or *Kachao*, the capital of the province, and the largest town in the empire, situated 100 miles from the mouth of the river Sangkoi, which is navigable for junks eighty miles up from the sea. The city is said to be at least three times as large as Hue, and probably contains 150,000 inhabitants. In Cambodia: *Saigon*, the capital, stands on a peninsula formed by two branches of the river Don-nai, one of the finest rivers of Asia, but till lately scarcely known to Europeans. The river may be navigated for 60 miles from the sea by vessels of any burden without a pilot; and by native craft, 20 days' voyage above Saigon, which is itself 15 leagues, or about 40 miles from the sea. Saigon is composed of two distinct towns, called Binge and Saigon, near the former of which is an immense citadel, almost rivaling in extent the fortifications of Hue. There is likewise a great naval arsenal. The houses are, as usual, built of wood, and thatched, and one storey high. Saigon is the principal commercial city of the empire, and contains at least 100,000 inhabitants. *Kambaja* (Cambodia, Eawek, Laweik or Loech), the ancient capital, is built on an island in the Maykuang, nearly 300 miles from its mouth; but is greatly decayed. Its royal palace and pagodas are in ruins.

About the middle of last century Tonquin, Cochinchina, and Cambodia formed separate kingdoms; Cochinchina being, however, tributary to Tonquin. These countries having been for many years in a state of anarchy, a revolution at length broke out in Cochinchina, in 1774, which led eventually to the present order of things. The great agents in the revolution were three brothers, called Tayons, men of the lowest condition, who defeated and put to death the king, and his son, who had advanced with an army to his father's rescue. But the wife of the prince having escaped with her son Gia-long, the latter, after many adventures, became ultimately king of Cochinchina and Tonquin, and established the present empire of An-nam; a result for which he was indebted principally to the resolution and sagacity of the French Bishop of Adran, and the skill and courage of a few European adventurers who accompanied him. Gia-long got possession of Hue in 1801; Tonquin was subdued in 1802, and Cambodia in 1809. He died in 1819, leaving his empire to an illegitimate son. The government exhibits despotism in its worst form; the only rich man is the king; he has fine palaces, large treasures, excellent fortresses; and vessels far superior to those of the Chinese. His officers are merely his tools, and share but little in his splendour. The nation at large is in the most abject condition; the people are poor, wretched, and filthy in the extreme, and are forced to give more than one-third of their labour, or an equivalent, to the king. The country is disturbed by frequent insurrections and rebellions; and emigration has lately prevailed to a vast extent, though prohibited by a despotic and decidedly anti-commercial prince, who forbids his subjects to carry the produce of their own country to other markets under pain of death.

§ 4. The Country of the Laos

Is a mountainous region situated to the north of Cambodia and Siam, occupying the upper valleys of the Meinam and the May-kuang, being bounded by An-nam on the east, Yun-nan on the north, Siam and Cambodia on the south, and Birmah on the west; and measuring about 800 miles in length by 400 in breadth. The climate is warm in the south, and temperate in the north, where it is a common occurrence to see snow and ice in winter. The atmosphere is very unhealthy during the rainy season, which lasts from April till October; during the other six months of the year the dry and fresh north wind purifies the atmosphere, and the forests can then be passed through without danger. The appearance of the country is magnificent, and the scenery beautiful; the soil is generally very fertile, except on the higher mountains, which present an arid appearance, with enormous rocks of strange shapes, concerning whose origin the Laos possess innumerable traditions. The country is rich in gold, silver, copper, and iron; almost every brook rolls down particles of gold; and if the people were acquainted with the art of mining, there is no doubt that they might acquire immense wealth. The vegetation is nearly the same as that of Siam. It is from the mountains of Laos that those enormous trees are obtained which serve the Chinese as masts for their largest junks. The country contains all sorts of wild animals, as elephants, rhinoceroses, bears, tigers, boars, porcupines, wild oxen, and buffaloes, elks, deer, &c. Crocodiles are not rare, and birds of every kind are innumerable. The inhabitants are called *Shyan* by the Burmans, *Lao* or *Low* by the Chinese; but they call themselves *Tai* or *Tie*. They seem to be the parent stock of both the Siamese and the Assamese; they are divided into three distinct races, with many subdivisions of tribes, and their language has a corresponding number of dialects. They are said to be a more civilized people than the Burmans; mild, humane, intelligent, and prosperous; and, though parts of their country are occasionally overrun and subdued by their neighbours, they have yet maintained a virtual independence. Some of the tribes still adhere to the ancient demon-worship; but most of them are Buddhists. *Zemmat*, on the Meinam, 400 miles N. of Bangkok, is the residence of the prince of all the southern Laos, and is said to contain 25,000 inhabitants. It is called *Chuangrai* or *Chuangmy* by the Siamese; and by Loubiere, in his history of Siam, *Chamé*, *Jungoma*, and *Shaimai*. Within a circuit of 50 miles are the cities of *Lagong* and *Moungpai*, each with 20,000 inhabitants; *Labong*, with 11,000; and several smaller towns.—(*Notice sur le Laos*, par M. Pallageois; *Bulletin de la Société de Géographie*, Paris, Jan. 1836.)

The *Singphos*, a kindred people, occupy both sides of the upper region of the Irawady, and spread from the Patkoi hills, in Assam, to China. They are divided into fifteen or twenty tribes, some of which are now British subjects, some are subject to the Burmese, and others are independent. They are a wild and somewhat lawless people; worship *nats* or demons; and have a great hatred of Buddhism. *Bessa*, called by the Burmans *Begamoung*, and by the Shyans *Hukung*, near the head of the valley of the Kyen-uen, is one of the principal Singpho towns, between which and Assam there is constant and free intercourse.

§ 5. The British Provinces.

MARTABAN or MOULMEIN, RE OF YE, TAYOY, and MERGUY or TENASSERIM, are situated along the eastern coast of the Gulf of Martaban, between 11° and 18° N. lat., and extend about 480 miles in length, by only 41 in breadth, comprising an area of 32,901 square miles; besides a great number of islands along the coast, which together comprehend about 1000 square miles. The whole length of the eastern frontier is formed by a range of mountains rising from 3000 to 5000 feet above the level of the sea, and chiefly composed of granite; the rest of the country consists of a series of hills, valleys, and plains, which extend from the mountains to the sea. Several passes lead through the mountains into Siam. The principal of these is the *Phra-song-chu*, or *Pass of the three pagodas*, in lat. 15° 45' N., 110

miles S.E. of Moulmein; which is the chief key to the military position of Martaban, and forms part of the road from that town to Bangkok. The three pagodas are only piles of stones, or cairns. The pass of *Nayedung* leads also into Siam from Tavoy. The general character of the Martaban or northern part of the provinces is that of a champaign country, where the plains greatly exceed the extent of the hilly land. There are, however, several low ranges of quartz rocks, and a considerable number of steep, insulated, picturesque rocks of blue limestone. The districts of Ye and Tavoy may generally be described as mountainous; the valleys or plains are few, and of small extent. The Mergui district is still more hilly, and the valleys are narrower; the geological formation is almost universally granite. The coasts of Ye and Martaban are open and exposed; but those of Tavoy, Mergui, and Tenasserim are thickly skirted with islands which are all hilly or mountainous, and generally composed of granite, with an occasional intermixture of lime and sandstone. The climate is very moist, and the country is covered with luxuriant vegetation. The year is divided into three seasons, the rainy, the cold, and the hot. The rainy season usually sets in about the beginning of May, and continues, with brief intervals of dry weather, till the end of October. November, December, and January may be called the cold, or rather cool season; February, March, and April form the hot season. In the latter the sun is very powerful, but its heat is tempered by a cool wind, which prevails in the middle of the day. Hot winds are unknown; and, during the rains, the strength of the monsoon prevents the atmosphere from being close and oppressive. In the dry season regular land and sea breezes prevail on the coast: and the territory of Martaban and Mergui especially may be considered salubrious. The province of Martaban contains very extensive forests of teak of the best quality and of the largest size; the other principal articles of natural produce are cardamums, catechu, bees-wax, ivory, rhinoceros and deer horns and skins, jerked beef, esculent swallows' nests, and sea-slug, most of which are in constant demand in China. The merest fraction of the territory is under cultivation. The chief agricultural products are rice, cotton, indigo, black pepper, and areca nut. Martaban is peculiarly suited for rice, which, even with the present rude cultivation, gives a return of from fifty to eighty fold. The coast of Ye abounds with large oysters, which cluster together on the rocks in immense numbers. Turtle also abound on the rocks at low water; but they are of little use except for their eggs, which are a favourite article of food with the Birmans. The most useful minerals yet ascertained to exist are coal, lime, iron, antimony, and tin. Coal has been found at Moulmein; and at the distance of 29 miles N. from the town of Tenasserim, a bed has been discovered only ten feet below the surface, and of a quality said to be admirably suited for steam vessels. This coal field is part of a great coal deposit which extends about 40 miles N., 50 S.E., and to an unknown distance N.E. of the old town of Tenasserim, seemingly in a great basin encircled by primitive, but much more by transition formations, in isolated ranges.—(*See Report on the Coal field at Ta-thuy-gua, on the Tenasserim River, in Mergui province. By J. W. Helfer, M.D. Jour. As. Soc. Bengal, Apr. 1839.*)

The population consists of Talains, Taliens, or Peguans, Birmans, Karyens, Trongsus, Chaloms or Seelongs, and Passas. The first two races are the most civilized; the Karyens are less so; and the others are wandering half-savage tribes. The Seelongs inhabit the islands on the coast, live entirely on the spontaneous productions of nature, principally turtles, fish, and mollusks, and never cultivate the ground. The bulk of the population is Birman; the total amounted, in January 1839, to 112,405 persons. The greater part, indeed, of this fine country is a wilderness, in consequence of having been continually laid waste by the hostilities of the Birmans and the Siamese. It came into the possession of the British Government in 1826, by treaty with Birmah, and is now rapidly improving; the security of person and property afforded by the British Government attracts settlers from all the neighbouring regions, particularly from Siam. The civil establishment of the provinces consists of a commissioner, deputy commissioner, two assistants, and a police magistrate. The first and the two last reside at Moulmein, the second at Tavoy, and the junior assistant at Mergui. The Birman is the language of the courts, of public transactions, and of general conversation. The military force has been increased to two Queen's regiments, two regiments of native infantry, a company of European artillery, and a corps of Talain light infantry. The revenues in 1839 amounted to 351,746 rupees; and the value of the exports to 1,325,119.—(*Captain Low's History of Tenasserim, in Jour. R. As. Soc.—Report on Tenasserim, &c., by J. W. Helfer, M.D., Jour. As. Soc. Bengal, December 1839.*)

MOULMEIN (*Moulmain, Moulmein, Moulmying*), the capital, is a new town built on the site of an ancient Pagan city, opposite to Martaban, on the left or eastern bank of the estuary of the Saluen river, where it is seven miles wide, and near its confluence with the Gyne, Saluwein, and Attaran rivers. In 1826 it contained only a few huts; it now extends three miles in length, and in 1839 numbered a population of upwards of 17,000, including several Armenians and Parsees, who, like the Jews, are sure to flock to every place which holds out any prospect of gain; besides a fluctuating population of about 1000 Birman and Talain labourers, who leave their villages for a time, and resort to Moulmein in search of employment. The military cantonment occupies the interior of a large square fort, the walls of which are of the most substantial order, and in good preservation, notwithstanding their high antiquity. The town occupies the space between the walls and the shores of the rivers on the north and west sides; and to the east is a range of hills studded with pagodas. The great temple of the ancient city has been repaired and beautified, and forms a striking object from the river; it is believed to have been built about the year 1527. Moulmein enjoys a considerable trade in exporting the produce of the country, the staple articles of which are teak, wood, paddy, and rice; and in supplying with manufactured goods the people of the interior, principally the Shyans, who visit Moulmein annually in caravans, bringing with them ponies, lacquered boxes, coarse silks, bullocks, and occasionally elephants, which they barter or sell for English piece goods, coarse cloth, fire arms, cutlery, salt, and a few minor articles. A considerable traffic is also maintained by means of the rivers with the people along their banks. *Amherst*, 27 miles S. of Moulmein, was fixed upon in 1826 for the site of the capital; it stands on a promontary at the mouth of the Saluen, and has a fine harbour; but the superior advantages of Moulmein have caused Amherst to be almost entirely superseded as a settlement. *Ye or Yeh* (properly *Re**) a village of about 150 huts, at the mouth of a river of the same name, across which there is a dangerous bar, 60 miles S.E. by E. of Amherst. *Tavoy or Dahuay*, a Pagan town of high antiquity, stands on the left bank of a river of the same name in lat. 14° 45' N. It is regularly and compactly built, with streets crossing at right angles; the houses are mostly built of wood, but are cleaner and more comfortable than is usual in Birman towns. Population in 1839, 10,490. The town stands, however, in a low swampy situation; the river, 20 miles below the town, begins to expand into a conical-shaped bay or gulf, one of the most magnificent that the eastern seas can boast of. The navigable channel is broad, deep, and capacious; the anchorage is generally good; and the high lands which surround the bay afford complete shelter from the violence of the south-west monsoon. *Mergui*, a well-built town, with 7405 inhabitants in 1839, on the banks of the Tenasserim river, not far from its mouth, has a fine harbour, and a salubrious climate. The natives call it *Bike*. *Tenasserim* is situate on the bank of the cognominal river, 30 miles E.S.E. of Mergui. *Balu* or *Buloo*

* The Birmans pronounce the *r* of their alphabet as the English *y* before a vowel; so that many names are found spelled by English writers sometimes with the one of these letters and sometimes with the other.

or *Bruse* island, forms the west side of the estuary of the Saluen, extending 17 miles in length N.-S., by 6 or 7 in breadth, and divided lengthways by a chain of moderately elevated hills. It is inhabited chiefly by Karyens, and produces a considerable quantity of rice.

PENANG, PINANG, or PULO-PENANG (Betelnut island), called in official documents *PRINCE OF WALES' ISLAND*, is situate near the northern entrance of the strait of Malacca, opposite the coast of Quedah, from which it is separated by a strait two miles wide. It is about 16 miles long, and from 8 to 12 broad, comprising an area of 160 square miles. It is of granitic formation, with a range of hills which extends through its whole length; but on the west and south sides there is a considerable space of level ground of good quality. Penang is considered remarkably healthy. In 1785, Captain Light, the commander of a country ship in India, having married the rajah of Quedah's daughter, received this island as a marriage portion; he transferred it to the East India Company, who agreed to pay for it 6000 dollars annually to the rajah; and they having in 1800 obtained a further grant of a district on the opposite mainland, now pay him 10,000 dollars a-year for both. *Georgetown*, the capital of the island, is one of the neatest towns on the Indian seas; it has a capacious harbour, with good anchorage, and is well-defended. The population of the island amounted, in 1833, to 40,322. *Wellesley province*, the continental dependency of Penang, extends 35 miles along the coast, and contained, in 1833, a population of 49,553.

The territory of MALACCA, on the south-west coast of the Malay peninsula, extends about 40 miles along shore, by 30 inland, and contains about 800 square English miles, with a population, in 1833, of 34,000. The coast is rocky and barren, with detached islets of cavernous rocks; the interior is mountainous, with picturesque valleys. The highest peak, called *Lealdang* by the Malays, and *Ophir* by the Portuguese, rises to the height of 4000 feet. The climate is healthy; the temperature is very equal, the thermometer ranging only from 72° to 85° during the whole year. The city of *Malacca* stands on a plain, with numbers of trees interspersed among the houses, near the mouth of a small river, in N. lat. $2^{\circ} 14'$, and E. long. $102^{\circ} 12'$. It is regularly built, and has an excellent anchorage, but a bad harbour. The situation is eminently salubrious. Population about 5000. The Anglo-Chinese college, one of the most valuable institutions in the east, was established here in 1818, by Drs. Morrison and Milne, for the cultivation of European and Chinese literature, and the instruction of native youths in the principles of Christianity; it is supported by voluntary contributions, and has several schools attached to it, at Malacca, Tavoy, Moulmein, and Rangoon. Malacca was founded by the Malays after their migration from Sumatra; it was afterwards in possession successively of the Portuguese, the Dutch, and the English; and was finally ceded by the Dutch to the English, in 1825, in exchange for Bencoolen in Sumatra. Though fallen, the city is still the head-quarters of the British military force on the Straits.

SINGAPORE or SINGAPUR (*Singhapura*, Lion-town) is an elliptical-shaped island, about 50 miles in circumference, 27 long by 15 broad, comprising an area of 270 square miles, and situate at the southern extremity of the Malay peninsula, from which it is separated by a long strait, only a quarter of a mile wide at its narrowest part. Within a circuit of 10 miles, there are about fifty other islands, containing altogether an area of about 60 square miles, all within the limits of the settlement, the total circumference of which, including the interjacent seas, is about 100 miles. The surface of the principal island is beautifully diversified with vallies, plains, and irregular hills; it is well stocked with timber, and the trees are generally of great size. A more delightful climate is probably nowhere to be found; the variation of seasons is scarcely perceptible; there is neither summer nor winter; even the periodical rains are short, and not very well marked. The thermometer ranges from 71° to 89° . The soil is fertile, the scenery beautiful, and the air deliciously balmy. The town is situate on the south side of the island, in N. lat. $1^{\circ} 17'$, and E. long. $103^{\circ} 51'$, on the banks of a salt creek, which is navigable for lighters. The streets are regularly built in the English style, chiefly of brick or freestone, generally two storeys high, finished with taste and neatness, and all painted white, which gives the town a fine and imposing appearance from the offing; its symmetry and beauty, however, are considerably impaired by the uncouth structures of the Chinese, Malays, and Hindoos, who adhere to the styles of their respective countries. The Chinese are the most numerous and most industrious class of the population. The harbour or road is commodious, safe, of easy access, and defended by a fort, which is well garrisoned and occupies a beautiful situation. In the vicinity of the town is a level, fertile, well-cultivated plain, laid out in gardens and plantations, intersected with excellent carriage roads, which are bordered with shrubs and trees of perpetual verdure, and contain the villas of the English merchants. Singhapura was a very ancient Malay settlement, but had been abandoned since the 13th century. In 1818 it was taken possession of by Sir T. S. Raffles; and the sovereignty confirmed to Britain, in 1825, by a convention with the King of the Netherlands, and the Malay princes of Johore, to whom it belonged. It had been previously possessed for a few years by some Malay fishermen and pirates; but so rapidly did the new settlement prosper, that when the first census was taken, in January 1824, the population amounted to 10,683; in 1834, it had increased to 26,349, of whom only 130 were white; the rest being Malays, Chinese, and other orientals. It has become a central emporium for the trade of the Chinese and Javan Seas; native vessels from every part of the Indian Archipelago find here a market for their produce, and a supply of the commodities which they require. A lucrative trade is also carried on with Cochin-China, Cambodia, Siam, Malaya, and Sumatra. There are no export or import duties. The language of general commercial intercourse is Malay. The island is abundantly supplied with all kinds of provisions, in great variety and of excellent quality. It possesses, indeed, so many advantages that it has been called "the paradise of India, the home of plenty, and the abode of health."

Penang, Malacca, and Singapore, are dependencies of the Government of Bengal, and are under the immediate charge of the Governor of Penang, who has assistants resident at Malacca and Singapore. By means of these three settlements, the British Government has now the command of the northern passage to China. The jealous and exclusive commercial schemes of the Dutch have been completely frustrated by the bold step of Sir T. S. Raffles, in taking possession of Singapore; a measure at which the Dutch were highly indignant. But when they found they were left without a remedy, they surrendered Malacca too, as the possession of that city would no longer answer their purpose of closing the straits.

§ 6. The Malay States.

The Malayan peninsula is a long narrow tract of about 750 miles, and 170 where broadest, but varying from that to a breadth of only 60. The great mountain range which divides the British Birman provinces from Siam, appears to extend without interruption to the southern extremity of the peninsula, occupying a great part of its breadth. The whole territory is of primitive formation, exhibiting everywhere masses and peaks of granite. It produces a considerable quantity of gold; but the staple production of the whole region, as far north at least as the 15° N. lat., is tin. The districts best known produce pepper, and other aromatics, and several kinds of gum. The forests, which seem to occupy a great part of the interior, contain aloewood, eaglewood, sandalwood, and *cassia odorata*, a kind of cinnamon. Vegetation is, indeed, everywhere rank and luxuriant; and the animals are nearly the same as those which are found in the neighbouring countries to the north. The northern districts

belong to the kingdom of Siam, and are chiefly inhabited by Siamese; but the southern portion, inhabited by the Malays, is divided into a number of petty states or kingdoms. *Quedah* or *Kedah* extends along the west coast from the Trang river, lat. $7^{\circ} 20'$ N., to the Krian, in $5^{\circ} 10'$, with a population of about 50,000; *Perak*, from the Krian to the Runkup, lat. $3^{\circ} 59'$ —population, 35,000; *Salangore*, from the Runkup to the Lingie, in $2^{\circ} 35'$ —population, 12,000; *Malacca*, from the Lingie to the Cassang—population, 35,000; *Johore*, from the Cassang on the west coast to the Sedilly on the east coast, in lat. $2^{\circ} 15'$ —population, 25,000; *Pahang*, from the Sedilly to the Kemamang, in lat. $4^{\circ} 15'$ —population, 40,000; *Kemamang*, a very small inland district, with 1000 inhabitants; *Tringano*, from the Kemamang to the Basut—population, 30,000; *Calantan*, from the Basut to the Baruna—population, 50,000; *Patani*, from the Baruna to the Tana, in lat. $7^{\circ} 20'$ —population, 54,000; *Ligor*, from the Tana to about the $9^{\circ} 20'$ N. Of these, Quedah, Patani, and Ligor are subject to Siam; Malacca is a British province; the others are independent, being governed by rajahs. The inland mountains are inhabited by savage tribes, some of them negroes, who are in a state of general anarchy and barbarism.

The Malays, who have given their name to the peninsula, migrated in the twelfth century from the territory on the banks of the river Malaya, in Sumatra, to escape subjugation to a king of Java. They seem to be a branch of the indigenous population of that great island, and probably of Java also, but are now settled along the coasts opposite to those islands. They are in general of a ferocious character, and celebrated for their piratical habits; a propensity to war and violence being the ruling passion of the race. The country being unsettled and laid waste by perpetual feuds, the peasant driven from his village and lawful means of subsistence, and tempted by the smooth seas, the safe navigation, and the shelter from pursuit afforded by the numerous islands, creeks, and rivers of the straits, and by the charms of a life so congenial to his free and restless spirit, is induced to scour the ocean for a precarious subsistence by fishing, or plunder, or both, as opportunity offers. There is, however, something highly romantic, and even interesting, in the national character of the Malays. They are not wholly illiterate; for they possess letters, and, as Mahometans, are acquainted with the Koran. They shew great ingenuity in several mechanic arts, especially in the fabrication of arms, and in the highly-wrought temper and finish of their formidable creeses. In some of their principal settlements they carry on a considerable trade, and can boast of wealthy merchants; but now here is slavery or slave-dealing more common. A bull-dog does not differ more in form and quality from a greyhound, than a Malay from a Hindoo. The broad face and coarse lineaments, the bull neck, short stature, muscular limbs, and glaring yellow hue of the former, are in direct contrast with the symmetrical features, the olive hue, the slender limbs, and the often elegant figure of the latter. Their mental dispositions and other natural qualities are in equal opposition. A Malay will not submit to an insult or an injury, without harbouring the purpose of deadly revenge, which he will carry into effect with all the art and subtlety of a fox; he will smile while he stabs, the better to throw his victim off his guard. Sometimes an infuriate Malay will run *amuck*, that is, strike and stab every person who falls in his way, till he is himself knocked down or captured. The laws and institutions of the Malays are said to exhibit the worst parts of Islam, mixed up with certain superstitions of their own; they practise circumcision, and believe in witchcraft; they buy their wives, often at an enormous price, the poorest seldom giving less than 60 dollars, which frequently reduces them to slavery, for debtors are obliged to work for the creditor till they can pay. They have fines for theft, and even for murder; but in most cases the punishment depends on the power of the injured party to exact it. The government is in the hands of sultans and rajahs, whose power is extremely limited, and is chiefly confined to the precincts of their own residence. Every village has its chief; and these dignitaries seldom agree in any common object, but, on the contrary, are often at war with each other. The justice which they administer to their followers depends entirely on their caprice. They are honoured with high-sounding titles; but it is difficult to conceive a greater caricature of royalty than a Malay sovereign in his wooden palace or barn, naked, except round the waist, squatted on a mat, and eagerly bargaining for the sale of cattle and fowls, or vegetables. Their perfidy is such, that no treaty with them can be relied on: they have been known to murder at their own table an invited guest. Plunder and bloodshed seems indeed the invariable object of every Malay, and such is their audacity, and so general is the spirit of piracy among them, that should even a large ship-of-war meet with a serious accident in their seas, she will be surrounded with hundreds of prahus, waiting for the first favourable opportunity to plunder the wreck, and murder the crew.

Malay towns consist of a group of huts of wood and thatch, heaped together without order or regularity. The *prahus* or *praos*, used by the pirates, are generally about eight or ten tons burden, well manned, and remarkably swift, particularly with the paddles which are commonly used. They are generally armed with swivels on their bows, centre, and stern, of small calibre, but long range. When preparing to attack, strong wooden bulwarks, called *apilans*, are erected, behind which the crew ensconce themselves, fighting with their long guns, until their prey is disabled, or till the gong sound the signal for boarding. But they mainly depend for safety and success on their skill in paddling, the swiftness of their boats, and their knowledge of the intricate channels among the islands, or over the bars of the rivers, into which they generally contrive to escape, thereby baffling their pursuers, and often leaving them aground on a shoal or a mud bank. They scarcely ever attack except during the lull between the land and the sea-breezes, or in a calm. They make their attacks and move in small fleets of from six to twenty prahus. During October, November, December, and January, they are found cruising up and down along the west coast of the peninsula, and the opposite shore of Sumatra. From June till the end of September, they are often to be seen about the islets to the south of Singapore, and in the creeks and rivers of the Johore coast. February, March, and April, are spent in fishing, collecting sea-weed, and preparing for future expeditions. The crews are armed with boarding spears, some of which are of very great length, creeses, hatchets, and swords, muskets, blunderbusses, and a variety of missiles. The most noted haunts for pirates on the west coast of the peninsula are the *Bonting*, *Aroe* or *Arroa*, *Coeth*, *Pisang*, *Dinding*, and *Sanbilang* islets; those on the Salangore coast; and the islets between Cape Rachado, and the Lingie river. The rivers *Mirbowe*, *Perak*, *Puteh*, *Koroo*, *Muar*, *Formosa* or the *Battu-pahat* river, and formerly the *Lingie* river; the straits of *Calang* and *Drgon*, *Point* or *Cape Romania*, and its vicinity, and the *Carimon* isles to the south; on the east coast the creeks and small rivers of Johore up to *Pahang*; the *Kemamang* river; those of *Tringano*, and *Calantan*; also the islands of *Tinwang*, *Pulo Tingie*, *Redang*, and *Aor*. Their armed vessels, however, are often ready for war or trade as occasion may offer; and some of them are really traders, who assert the necessity of carrying arms for their own defence; but the British cruisers invariably burn, sink, or otherwise destroy all that are found with arms on board. One of their chief re-ports for their slave trading is *Pulo-Nias*, on the west coast of Sumatra.—(*Journal of the Asiatic Society of Bengal*, Nov. 1836.—*United Service Journal*, April 1837.)

For the materials of this Section, the South-eastern Peninsula, we are principally indebted to *Crawford's Journal of his Embassies to Awa, Siam, and Cochin-China*; *Capt. Low's History of Tenasserim*, in the *Journal of the Royal Asiatic Society of Great Britain*; *The Rev. Honard Malcolm's Travels in the Birman Empire*; *Ruschenberger's Travels round the World*; the *Asiatic Journal for August and October 1840*; *Martin's History and Statistics of the British Colonies*; *Captain Benjamin Morrell's Voyages*; *Journal of the Asiatic Society of Bengal*, 1839 and 1840, &c. &c.

THE CHINESE EMPIRE.

THIS empire extends over a very large portion of eastern and central Asia, comprehending upwards of 3,000,000 of square English miles, of which 1,298,000 are within the limits of China Proper, and the remainder in the subject territories to the west and north.

ASTRONOMICAL POSITION.—China Proper is situate between 20° and 42° N. lat., and 98° and 123° E. longitude.

DIMENSIONS.—The greatest length, from north to south, is 1500 miles; and the greatest breadth, from east to west, about 1100 miles. The superficial area comprehends 1,298,000 square English miles, and the coast line is upwards of 2500 miles in length.

BOUNDARIES.—*Northern* :—Mantehouria and Mongolia, or Chinese Tartary. *Western* :—Thibet. *Southern* :—Birmah, An-nam, and the country of the Laos. *Eastern* :—The Pacific Ocean.

NAME.—The name of *China* is very probably derived from that of the dynasty of *Tsin*. The country is called by the natives *Chung-kwo*, central kingdom; and *Tang-shan*, Hills of Tang, the name of one of their most celebrated dynasties. The present ruling family have given to it the name of *Tu-tsing-kwo*, the Kingdom of Great Purity. In the proclamations issued by government, especially those addressed to foreigners, it is often called *Teen-shan*, Celestial Empire. The natives call themselves *Chung-kwo-teih-jin*, Men of the Middle Kingdom, or *Han-jin* or *Tang-jin*, Men of Han or Tang. The whole empire is often designated *Teen-hea*, Under Heaven.

GENERAL ASPECT.—China consists of a series of river basins, and of low lands along the sea-coast, divided by ranges of hills, which rise in some places to a very considerable elevation. Yun-nan, the south-western province, is very mountainous, and sends out two branches eastward; the one of which separates the basin of the Si-kiang river from the coasts of the Gulf of Tonquin; the other separates it from the basin of the Yang-tse-kiang, and its affluents, whose basins are themselves divided by diverging ranges from each other, and from the coasts of the east sea. The basin of the Yang-tse-kiang is divided from that of the Whang-ho by a continuation of high land which diverges eastward from the Peling mountains, on the borders of Tartary, but which, terminating before it reaches the coast, leaves a large alluvial plain between the mouths of these two great rivers. The remaining portion of the country lying between the Whang-ho and the Gulf of Pe-che-lee, consists of the basin of the Pei-ho and the Eu-ho, having the hills of Shantung province on the south, and a cross range on the west, but communicating with the basin of the Whang-ho, by an opening at the angle formed by the two ranges. The geology of China is unknown; the only elevation which has been ascertained by European observers, is that of the mountain over which is the *Pass of Meilan*, between the provinces of Kiang-si and Quang-tong, which rises to the height of 8000 feet above the level of the sea. The appearance of the country is very varied; between Peking and Canton, a distance of 1200 miles, the members of the British embassy observed every variety of surface, but this uniformity was very remarkably disposed in large masses. For many days they saw nothing but one continuous plain, without the smallest variety; for as many days they were hemmed in by precipitous mountains, naked and unvaried as the plains; and, for ten or twelve more, their course lay through lakes, swamps, and morasses. There was a constant succession of large villages, towns, and cities, with large navigable rivers communicating with each other by artificial canals, both of which were crowded with boats of every form. Neither hedges nor trees were to be seen throughout the country.

The southern basin and the adjoining coast compose the provinces of Yun-nan, Quang-si, and Quang-tong. Yun-nan presents a singular variety of mountain and valley; possessing a more alpine character than any other part of China, and yet containing some extensive and finely watered plains. It is also said to be the richest of all the provinces, in metals and minerals, among which are gold and very fine copper. Quang-si and Quang-tong, or the two Quang provinces, lie to the east of Yun-nan,

and consist principally of a large plain bordered by mountains. *F. kien* and *Che-kiang* are maritime provinces to the north of Quang-tong, and consist of ridges of mountains at no great distance from the sea, interspersed by numerous valleys. Fokien is, comparatively speaking, so unproductive, that its numerous population are compelled to devote themselves to maritime affairs, in which they are favoured by the deep bays and fine harbours which the province contains. Its inhabitants are the holdest and most adventurous of the Chinese, and furnish the mariners for the imperial fleet of war-junks, and the greater part of the emigrants to foreign countries. The basin of the Yang-tse-kiang, and its affluents, is occupied by the provinces of *Setchuen*, *Kwei-chew*, *Hou-quang*, *Kiang-nan*, and *Kiang-si*. *Setchuen* is very imperfectly known. Its mountain border on the west is lofty, but the eastern part of the province slopes into a plain. *Kwei-chew* consists partly of a plain, but a large portion is composed of the mountains towards Yun-nan and Quang-si. *Hou-quang* consists principally of an extensive and highly fertile plain, watered by numerous lakes and rivers, and producing in abundance, beyond any other part of the empire, every thing that can minister to the use of man. *Kiang-nan* consists, with little interruption, of a great alluvial plain, which extends from the sea inland, along both sides of the Yang-tse-kiang and the Whang-ho. *Kiang-si* occupies the basin of the Kan-kiang and the Poyang-ho, and is profusely watered by numerous streams which pour down from the mountains that border on its south, east, and west sides. The northern provinces of *Shen-si*, *Shan-si*, *Honan*, *Shan-tung*, and *Pe-che-lee*, occupy the basins of the Whang-ho and Pei-ho and their affluents, with the mountains which divide and encircle them. *Shen-si*, the north-west province of China, abounds with mountains, everywhere diversified with fertile and well-watered valleys, but is nowhere so rugged as to shelter savage tribes. *Shansi* is also partly mountainous, and occupies the eastern side, as *Shen-si* does the western side of the valley of the Whang-ho, in its long southerly course from the great wall, before it turns finally to the east. *Honan* lies between *Shan-si* and *Kiang-nan*, occupying the space between the two great rivers, and from its central situation is called the "flower of the middle." It is described by the missionaries as being so fertile and beautiful as to have merited the appellation of the garden of China; and appears to consist of an extensive champaign country, bordered on the west by high mountains covered with forests. *Shan-tung* consists of a long mountainous promontory, jutting far out into the Yellow Sea, with the valleys which border it on both sides. *Pe-che-lee* is the most northerly province, and consists of a wide naked plain rising gradually to the Tartar frontier, where it becomes decidedly mountainous. The new province of *Kan-suh* is composed of hills and deserts, lies to the west of *Shen-si*, and comprehends a great part of what was formerly included within that province.

GULFS, BAYS, STRAITS.—*Gulf of Tonquin*, between the island of Hainan and the province of Quang-si and Tonquin; *Gulf of Canton*, in Quang-tong; *Strait of Formosa*, between Formosa and Fokien; the *Yellow Sea (Whang-hai)*, between Corea and the northern provinces of China; the *East Sea (Tung-hai)*, between Formosa and Corea; *Gulfs of Pe-che-lee* and *Liaotung*, in the north-western part of the Yellow Sea. The water in these gulfs is generally shallow, with a muddy bottom.

ISLANDS.—*Ha nan*, between 18° and 20° N. lat., and 108° and 112° E. long., is separated by a narrow and shallow channel from a long peninsula which juts out from the province of Quang-tong. It is about 190 miles long, by 70 broad; a great part of it, particularly on the northern side, is level, and is inhabited by Chinese; but the interior is rugged, and possessed by very rude tribes. The climate is hot and unhealthy. The capital is *Kiong-cheou-fou*, on the north coast. The *Ladrone*s or *Kobber's Islands* extend along the coast between Hainan and Canton, so near each other and the mainland, and so irregular in their form and position, as to appear like fragments disjoined from the continent. They have a very bleak and rugged appearance, and have long served as a haunt of pirates. *Ty-mun-shan*, or the *Great Ladrone*, in lat. $21^{\circ} 57' 10''$ N., long. $113^{\circ} 44'$ E., is steep and bold, and may be seen at the distance of fourteen leagues from the masthead of a large ship, or nine from the deck. This island, with the *Little Ladrone* and *Potoe*, to the north-north-west, bounds the eastern side of the great channel which leads to Macao roads. *Heang-shan*, a very large island formed by two branches of the Canton river, forms the western side of its main channel, and terminates seaward, in a small peninsula which contains the Portuguese town of Macao. The *Asses' Ears* and the *Lemys*, are small islands, barren and uncultivated, at the eastern side of the Gulf of Canton. *Lintin*, the station of the opium smugglers, a small island in the Canton river, 21 miles N.E. of Macao, and 23 outside of the Bocca-Tigris. The peak of Lintin, a high mountain in the centre of the island, forms an excellent landmark. *Lantau* or *Tyho*, a large island on the eastern side of the Gulf of Canton. *Hong-kong*, a small rocky island, 15 miles in circumference, recently ceded to the British as the seat of their trade with China, is situate to the east of Lantau. *Hao-tan*, a large island off the coast of Fokien, between which and the mainland there is a labyrinth of islands and rocks, lining the coast for many miles. *Quesan*, a cluster of islands between 29° and 30° N. lat., off the coast of Che-kiang. *Chew-shan*, *Chow-shan*, or *Chusan*, a large and fertile island, between 30° and 31° N. lat., surrounded by a great number of smaller islets off the north-east coast of Che-kiang. Between the Quesan islands and Chusan harbour, a space of about 60 miles by 30, the number of islands exceeds 300, among which there are almost as many valuable harbours, or places of perfect security, for ships of any burden. This circumstance, together with their central situation in reference to the east coast of China, and the vicinity of Corea, Japan, Loo-choo, and Formosa, attract a considerable trade, which centres at Ning-po, a city of Che-kiang, to which all these islands belong. *Ting-hai-heen*, the capital of Chusan, is a large city, 6 miles in circumference, and surrounded by a good wall and ditch. Near Chusan is the island of *Poo-to*, inhabited by about 1000 Bonzes, who attend a number of large temples, which are resorted to by mariners to return

thanks after a perilous voyage. *Tsong-ming* or *Tsung-ming*, a large alluvial island, 5 or 6 leagues long by 2 broad, at the mouth of the Yang-tse-kiang, surrounded by dikes to protect it from the sea, and containing about 2,000,000 of inhabitants, who are industrious and enterprising, and celebrated as excellent fishermen and sailors. One part of the island is used for the cultivation of rice, another for the growth of various grains, and the third, though apparently the most unromising, and producing not even a blade of grass, is so impregnated with salt, as not only to furnish a sufficient quantity for the consumption of the inhabitants, but also a large surplus for exportation. The banks which bar the entrance of the Yang-tse-kiang are really formidable; they are about twelve in number, visible at low water, and several miles in circumference. *Woo-teou-sha* are immense banks at the mouth of the Yellow river, stretching about 80 miles out to sea, but gradually sinking, and running off in spits. As the coast is not visible, even at the distance of two miles, many vessels are wrecked upon them; but no measures are ever taken by the Chinese government to point out the dangers. *Yun-tai-shan*, an island with a double range of hills, north of the Yellow river. *Staunton*, *Alceste*, *Mutau*, small islands off the coast of Shan-tung. *Sha-loo-poo-tien*, low sandy islands or shoals, off the mouth of the Pei-ho, in the Yellow sea. *Potocki's Islands*, a group off the southern coast of Liaotung. *Sir James Hall's Group*, *Hutton's Island*, *Amherst Isles*, *Corean Archipelago*, all in the Yellow sea, along the west coast of Corea. *Quelpart*, a large island in the East sea, 60 miles from the south-west point of Corea.

Ta-ivan (called by its first Portuguese visitors *Formosa ilha*, Beautiful island), in the East sea, between 22° and 26° N. lat., and 120° and 121° E. long., is 250 miles in length, by 80 in breadth, and lies about 20 leagues from the coast of Fokien. It is divided throughout its length by a range of mountains, some of which reach the limit of perpetual snow. From this ridge there is a gradual slope to the west coast; and far into the sea, on that side, the water is shallow. This side produces immense quantities of rice and sugar, is in possession of the Chinese, forming part of their province of Fokien, and contains two considerable towns, *Tai-uan*, the capital, and *Ke-lung-chang*, the latter of which possesses the only good harbour in the island, and is situated on the north coast. The eastern side of the island is mountainous and precipitous, and is inhabited by independent tribes of the Malay or Polynesian race, who live chiefly by hunting. Along the coast are the smaller islands of *Steek*, *Sohu*, *Samasanna*, *Botel-Tobago-rina*, and *Lanaty*; and in the channel, between *Tai-uan* and Fokien, are the *Pescadores* or *Pung-hoo* or *Pekoe Islands*, a numerous group of various dimensions, all extremely barren; but, having good harbours, they serve as a place of refuge for the junks in the north-east wind, which blows here during the greater part of the year. The Chinese keep a numerous garrison here, as the security of *Tai-uan* depends on the possession of these islands.

RIVERS.—The *Kiang* (river), called by Europeans the *BLUE RIVER*, and named, near its mouth, *YANG-TSE-KIANG* (river of the son of the ocean), is the largest in the empire. It is formed by the union of three branches, named the *Kin-cha*, the *Yalu*, and *Min*, of which the first is considered by Klaproth to be the principal. The *Kin-cha-kiang* (gold-sand river), called *Mourou-oussou* and *Bourai-chou*, in Thibet, takes the name of *Tu-kiang* (great river), in Setchuen, and runs through that province, Ho-quang, and Kiang-nan, into the East sea. The length of its course is about 3280 miles. Its principal affluents are the *Yaloung*, *Min*, *Lo*, and *Kan*, on the right; the *Kia-ling*, and *Han*, on the left. Its course is very winding, but the general direction is nearly east, through the middle of China. It appears to be the longest, as well as one of the largest, rivers of Asia, and convays an immense body of water into the ocean. Where it is crossed by the imperial canal it is two miles wide, and the stream runs with such force, that Lord Amherst's embassy, found great difficulty in sailing up to the Poyang lake; and were unable to make way at all against the stream, except with a strong north-easterly breeze. The influence of the tide extends 400 miles up the river.

The *Whang-ho* (*Huang-ho* of the French), or *YELLOW RIVER*, has its sources in the Koulkoun mountains, in the country of Hoho-nor. Turning abruptly north, it passes to the outside of the great wall, and, after flowing in an easterly direction, turns south, and flows S. by W. for about 400 miles, at the end of which it turns again very abruptly east, and flows into the East Sea, about 100 miles to the north of the Yang-tse-kiang, after a course about 3000 miles. Its stream is so excessively rapid as to be nearly unnavigable throughout the greater part of its course. It carries along with it an immense mass of yellow mud in a state of solution in its waters, and its frequent floods occasion great damage to the country, and expense to the government, in maintaining artificial embankments. Its principal affluents on the right are the *Wei-ho* or *Quei-ho* or *Koei-ho*, in Shan-si, and the *Hori* or *Hoi-ho* in Kiang-nan. The *Fuen-ho*, in Shan-si, is the principal affluent on the left. The tide ascends the stream of the Whang-ho as far as in the Yang-tse.

The *Pei-ho* rises in the Kingkan hills, and falls into the gulf of Pe-che-lee. Its principal affluents are the *Tshao-ho*, the *Sun-kan-ho*, and the *Hou-thou-ho* or *Eu-ho*, which is crossed by the imperial canal.

The *Si-kiang* (Pearl river) flows through Quang-si and Quang-tong, past the city of Canton, where Europeans give it the Portuguese name of *Tigris*, and call its mouth the *Bocca-tigris*. A little above Canton it is joined by the *Pe-kiang*, and below Canton, by the *Tong-kiang*, both from the north.

LAKES.—The *Tong-ting-hou* is a large lake, 300 miles in circumference, in the province of Hou-quang, which pours its waters into the Yang-tse-kiang. From the borders of this lake to the city of Vooshan, or an area of 140 English square miles, there is a great number of lakes nearly touching each other, from which circumstance the province has received its name of Hou-quang, the country of lakes. The *Poyang-hou*, in Kiang-si, has a circumference of 90 or 100 miles, and receives four large rivers, whose accumulated waters are discharged into the Yang-tse. It lies in the midst of a great extent of swampy land, with rivers flowing into it from most points of the compass. Its waves sometimes rise so high as to render it, in the opinion of the Chinese, as dangerous as the ocean. Its surface is studded with sandy islands just rising above the water, and covered with humble dwellings, the abode of fishermen, who pursue their calling on the lake. The *Tai-hou* to the south-east, the *Kao-yau-hou* to the north-east, the *Hong-tse-hou* to the north, and the *Tsiao-hou* to the south-west of Nanking.

CLIMATE.—The temperature of China is considerably lower than that of the European countries in the same latitudes; and is more subject to excessive variations. At Peking, in the latitude of central Spain, frost occurs daily in December, January, and February, and very often in March and November; and this cold is often followed by excessive heat. At Peking there are, properly speaking, only two seasons, winter and summer; and, according to the observations of Father Anyot, the mean of the greatest heat is 121°, that of the greatest cold 63° below zero, and the medium heat of the year 55°. At Canton, under the tropic of Cancer, the mercury frequently falls below the freezing point in January, while in summer it sometimes, though not often, rises to 100°. The mean of the monthly range of the thermometer at Canton, for the years from 1829 to 1838 inclusive, stood thus:—January 52½°;

February 55°; March 62½°; April 70°; May 77°; June 81°; July 83°; August 82°; September 80.033°; October 73¼°; November 65¼; December 57.134°. The number of rainy days in each of the ten years averaged 122. — (*Silliman's Am. Jour. of Science*, April 1840.)

The first English embassy, on their arrival in Canton in December 1793, found that a fire was not disagreeable; thirteen years afterwards, Krusenstern saw ice selling in the streets during the same month. In February 1836, Canton was visited by a fall of snow, which continued for several hours, to the great surprise of the natives, few of whom had ever before seen such a phenomenon; and to the great delight of the European residents, who were thus agreeably reminded of home. Notwithstanding, however, these extremes of heat and cold, the climate of China may be characterised as highly salubrious, a circumstance which no doubt arises from the extent of cultivation and drainage. During August and September it is generally hot and sickly, as the wind then blows from the west over the parched deserts of the interior. Hurricanes also are not unfrequent, and are sometimes extremely violent.

VEGETABLE PRODUCTIONS. — The southern provinces possess the usual products of tropical regions, few of which, however, are seen to the north of the Pass of Meilan. Between that mountain range and the Whang-ho, various species of orange, lemon, tea, sugar-cane, rice, pomegranates, black and white mulberries, the vine, the walnut, chesnut, peach, apricot, and fig, are seen growing on the same spot. Camelias, bamboos, and cypresses are also found; the whole zone abounds with coniferæ, and the mountains are adorned with pines. The principal object of cultivation is rice; but in the north-western provinces there are districts too cold and dry for this grain which is therefore replaced by wheat. Yams, potatoes, turnips, onions, beans, and, above all, a kind of white cabbage, called *potsai*, are cultivated. But not the least important of the vegetable products is *cha* or tea, of which the Chinese botanists reckon 200 species. It grows in the most sterile ground on the sunny ridges of hills, chiefly between 25° and 30° N. lat.; though it is also found in various other parts of the country. The cultivation appears to be confined to the temperate zone, extending to the northern provinces. The tea-districts, properly so called, are thus stated by Dr. Abel: That of the green tea is in Kiang-nan, between 29° and 31° N. lat., at the north-western base of a ridge of mountains which divides Che-kiang and Kiang-nan; the black-tea district in Fokien, is contained within lat. 27° and 28° N., and is situate on the south-eastern declivities of a ridge of mountains which separates Fokien from Kiang-si. Green teas are very little used by the Chinese; though an infusion of tea is used universally throughout the country, and is brought forward on all occasions, and at all times of the day. Public tea-houses are also found in every town and village.

ANIMALS. — China contains scarcely any animals which are not common to other countries. The elephant is found in the south-western provinces, and the one-horned rhinoceros lives in the marshes of Yun-nan and Quang-si. The musk deer is sometimes found in the western provinces; deer, boars, foxes, and other wild animals abound in the forests. The Chinese rear, though in small numbers, all the domestic animals of Europe, the horse, the ass, the ox, the buffalo, the dog, the cat, and the pig. They have also two-humped camels of a small size. They eat almost indiscriminately every living creature which comes in their way; dogs, cats, hawks, owls, eagles, and storks are regular market commodities; and, in default of these, a dish of rats or snakes is not objected to; and cockroaches, and other insects and reptiles are used for food or medicine. Some of the native birds are very splendid; the fish are in great variety; and from China we have derived the gold and silver fish of our ponds and vases. The insects are numerous and beautiful. The white-wax insect produces an important necessary of life. Sir George Staunton mentions it as an insect not much exceeding the size of a fly, covered with a white powder, which is imparted to the stems of the plants on which it lives. This powder is collected by the people, who apply to it hot vegetable oil, and the mass, when cold, coagulates and becomes as firm as bees' wax. As a medicinal drug, it is highly esteemed throughout China, and, for making candles, is reckoned superior to bees' wax. The silkworm is said to have come originally from China. The people rear this valuable insect in small houses erected for the purpose in the midst of the mulberry plantations; and even the inhabitants of the towns rear it, and purchase mulberry leaves for the purpose. Destructive ants abound in the southern provinces.

PEOPLE. — The Chinese are considered by physiologists as belonging to the Mongolian variety of the human race. The head is almost square, the nose is short without being flat, the complexion yellow, the beard thin and the eyes oblique. There is

however, a great difference between the southern and the northern Chinese, and between the mountaineers and the inhabitants of the plains and sea-coasts. A Chinese female is vain of her beauty in proportion to the smallness of her eyes, the protuberance of her lips, the lankness and blackness of her hair, and the extreme smallness of her feet. Among the men, corpulence, as the indication of an easy life, commands a certain degree of respect; and men of thin figure are regarded as destitute of talent. People of quality allow the nails of their fingers to grow, and stain the hair of the head and the beard black. The Chinese are generally of a middle size; few tall men are found among them, and still fewer dwarfs or deformed persons. The women can be seen with difficulty, and generally those only of the lower ranks, who are not distinguishable from the men by any delicacy of feature or complexion. Their persons indeed are considered to be the reverse of elegant or beautiful. With respect to character, peace, industry, order, and regularity appear to prevail among them. Flagrant crimes, and open violations of the law, are not common; but petty delinquencies and frauds are very prevalent. The supreme ruler of the country is the bamboo, which is applied, at the discretion of the magistrates, to all ranks of offenders; and on such occasions the delinquent is obliged to return thanks to the magistrate for his paternal care of his morals. The attachment of kindred is very strong, and the support of the aged and infirm is inculcated as a sacred duty, which appears to be very strictly fulfilled. Towards strangers, however, and persons not of their own family, their indifference is extreme; and in cases of accident, they allow their neighbours to perish before their eyes, without offering the smallest assistance. They all marry early, and are very prolific, the consequence of which is a very numerous, and generally redundant population, who, with all their industry and moderation, have often great difficulty in obtaining the means of subsistence. Emigration is prohibited; but great numbers of men notwithstanding contrive to leave the country; numerous colonies have settled in the Indian Archipelago, and some have even gone to Calcutta, Mauritius, and Brazil.

The community of China appears to be divided into four ranks or orders; of which the literati or learned occupy the first place; the husbandmen the second; the manufacturers the third; and the merchants the fourth. But in this country, as everywhere else, wealth raises its possessor above such conventional distinctions. The merchants accordingly, though lowest in rank, can command the services of their superiors; but it is only the *learned* who are yet allowed to occupy places in the government. The only persons possessing hereditary rank are the members of the Imperial family, who are distributed into five classes, all distinguished by wearing a yellow girdle; but they possess no political powers or privileges, and have only very small revenues assigned to them for their subsistence. The consequence is, that some of the more remote of these branches are in very indigent circumstances. Being likewise brought up to a life of idleness, they are in many cases ignorant, dissipated, and worthless; but they are kept under very strict control. Besides the descendants of the emperors, there is another class of imperial kinsmen, descended from the brothers or uncles of the first Tartar emperor, who are distinguished by a red sash and bridle. Every thing connected with their dress and equipage is subject to minute regulation, and they are as strictly watched as the others. It is said there are still some descendants of the Ming dynasty in existence, but they have laid aside the yellow girdle through fear of persecution. Polygamy is not permitted; a man can have only one legal wife, but he may have as many *tsie* or concubines as he pleases, or can afford; and the offspring of the latter possess many of the rights of legitimacy. The wife is espoused with regular marriage ceremonies, is the equal of her husband in rank, and possesses certain legal rights, such as they are; but the *tsie* is bought for money, and is taken into the house nearly as any other domestic. The women are, however, the slaves of their husbands and masters; they live and die in ignorance, and every effort to raise themselves above the rank assigned to them is regarded as impious arrogance.

Besides the subjects of the Emperor, there are within the limits of China Proper several tribes who have always maintained their independence. The higher districts of Yun-nan are occupied by a hardy highland race called *Lolo*, of a totally different character from the Chinese. Such is their valour, and the strength of their mountain fastnesses, that the Imperial Government has been obliged to rest satisfied with a nominal acknowledgment of homage, leaving the internal government to be administered by the native hereditary chiefs. In the neighbouring province of Kwei-chew are several tribes of rude people called *Miaotsi*, who inhabit the mountain districts, and have hitherto bid defiance to the military force of the empire. The people who

possess the mountainous districts of Hainan and Formosa are likewise nearly, if not altogether independent.

The Ladrões, or Pirates of the islands which stud the southern coasts of China, form a very numerous and organized body, and possess a fleet of at least 500 well-manned vessels, of from 10 to 250 tons, the largest carrying 12 guns, and all of them armed, besides the ordnance, with abundance of small arms, spears, swords, and boarding crises. They are under strict discipline, and often evince great bravery.

POPULATION.—With European statistes the population of China has long been an insoluble problem; and their estimates have varied from about 30 to 370 millions. Balbi, by his approximative method, determines it to be 150 millions. In 1793 Sir G. Staunton was informed by a mandarin of high rank that it then amounted to 333 millions; and in 1832 Mr. J. R. Morrison of Canton stated, in the *Companion to the Anglo-Chinese Almanack*, as the result of a census taken in 1813, and published by imperial authority, the amount as having then been 360,443,000. Mr. Medhurst says that it was, in 1812, 361,221,900, and adds, that after the fullest consideration of all that has been said on the subject, after the most patient investigation of native documents, and after extensive inquiries and observations among the people for more than twenty years, he cannot resist the conviction that the population of China Proper is as above stated; besides the population of Formosa, and the tribes of Chinese Tartary. Mr. Gutzlaff also declares himself to be “fully persuaded that the last imperial census is as near the truth as it can be ascertained.” Those parts of the empire which he visited were extremely populous. He took the trouble of examining some parts of the census, and of numbering the houses in small districts, and invariably found that the population was under-rated. And Mr. Morrison, in publishing the statement already referred to, observes that it “will probably serve to set at rest the numerous speculations concerning the real amount of population in China. We know from several authorities that in China the people are in the habit of diminishing rather than increasing their numbers in their reports to government. And it is unreasonable to suppose that in a work published by the government, not for the information of curious inquirers, but for the use of its own officers, the numbers reported by the people should be more than doubled, as the statement of some European speculators would require us to believe.” The numbers in our table of the extent and population of the provinces are those published by Mr. Morrison, taken from the *Ta-tsing-lucuy-leen*, or Collection of Statutes of the *Ta-tsing* dynasty, published in 1825, according to a census taken in the 18th year of the reign of Kia-king, under the authority of his imperial Majesty.

EDUCATION, SCIENCE, and LITERATURE.—One of the most curious features of Chinese policy is the encouragement given to the cultivation of literature, which is professedly the only channel of introduction to advancement in the State, and to the acquisition of office, rank, and honours. With the prospect of such rewards the number of students is very great, and a taste for letters is almost universally diffused. Schools abound in every town and village, and the best education which the country affords may be procured on the most moderate terms. Certain magistrates are appointed in every province to take charge of the candidates for employment, to direct them in their studies, and twice a-year to hold public examinations, when small presents are distributed to the most deserving. At Peking is a grand national college named *Han-lin-yeu*, which is supported by Government, the members of which are the chief literati of the empire. Nothing, however, but old established principles are taught; the scholar of the present day must not venture to go beyond the sages of ancient times; learning is consequently at a complete stand-still. As a further encouragement to literature, the press is left free, and any one may print what he pleases, taking his risk of the consequences; the Government being very rigid in suppressing “wicked, corrupt, and seditious publications,” and in punishing their authors. The antiquity and importance of Chinese literature have only of late years been duly appreciated in Europe, and have but very recently begun to attract the attention of students. “The Chinese literature,” says M. Abel-Remusat, “is incontestibly the first in Asia, in respect of the number, the importance, and the authenticity of its monuments. The classic works, named *King*, go back to a very remote epoch. The philosophers of the school of Confucius have made them the basis of their labours upon morals and politics. History has always been the object of attention, and the Chinese annals form the most complete and continuous that exist in any language. The custom of competition has given a powerful stimulus to political and philosophic eloquence. Literary history, criticism, and

biography, are the subjects of a crowd of works remarkable for their order and regularity. The Chinese possess many translations of Sanscrit books upon religion and metaphysics. The literati cultivate poesy, which is subject to the double yoke of metre and rhyme; they have lyric, narrative, and descriptive poems, theatrical pieces, romances of manners, and romances wherein the marvellous prevails. They have, besides, a great number of special and general collections, libraries, and encyclopædias, and in the last century they began the printing of a collection of select works in 180,000 volumes! Notes, glosses, commentaries, catalogues, indices, extracts arranged in the order of subjects, lend their aid to facilitate research. They have excellent dictionaries, in which all the symbols of their writing, and all the words of their language are explained with the greatest care, and in a very regular order. Books are printed upon silk paper, and as this paper is extremely fine, they are obliged to print only upon one side; the parts are classed, numbered, and paged; finally, there is not, even in Europe, a nation that has so many books, books so well made, so commodious for consultation, and at so low a price; and notwithstanding there is no country where real science and literature are at a lower ebb.

Geography has been cultivated from the most ancient times; a fact which is proved by the descriptions of the empire given in the *Chou-king*, five centuries B. C. The Jesuits constructed a new map of the empire by order of the Emperor Kamhi, between 1707 and 1715, and a new edition of it, with corrections, was published in 104 sheets in 1760, by order of the Emperor Kien-long, under the direction of the missionaries. The imperial geography forms 260 volumes in quarto, with maps and plans. It embraces every topic: topography, hydrography, monuments, antiquities, natural curiosities, industry, productions, commerce, agriculture, government, population, general history, biography, and bibliography. Astronomy has always been held in honour, but its progress has been very limited. Their knowledge of mathematical science appears to be very low; they use the decimal system of arithmetic, and execute with rapidity all its operations by means of a machine, the swanpan, the use of which has passed into Russia and Poland. Their theory of military tactics displays some learning, and has even fixed the attention of some generals of the school of the great Frederick; but their artillery is very defective; their muskets are inferior, and their powder is very inefficient. The Chinese were, nevertheless, acquainted with the art of making gunpowder before it was known in Europe, and they have long been accustomed to make fireworks which produce a surprising effect. Their medical science is mixed with superstitious practices, and founded upon imaginary theories. Their pharmacopœa, however, is rich, and they have good books of medical natural history, accompanied with plates; but their physicians are the only cultivators of natural history. Their arts of design are very imperfect; they are unacquainted with perspective; and the only objects which they paint well are plants, flowers, houses, boats, and other objects of inanimate nature. Their sculpture is distinguished only by its nice finish; but they execute in wood sculptures in relief of remarkable fineness. Their architecture has neither grandeur nor elegance; and yet the order, and the fine colours with which their buildings are adorned, have a seducing effect. Magnificence is reserved for public buildings, such as the emperor's palace, temples, towers, triumphal arches, town walls, and gates. Their bridges, canals, quays, and particularly the embankments of the Yellow river, are as remarkable for the persevering industry which has produced them as for their usefulness. The Chinese music, though founded upon a very complicated system, wants, nevertheless, according to European taste, both harmony and melody.—(*Balbi's Abregé*, p. 787.)

The manners of this numerous people have one striking characteristic, and their religious opinions and practices are precisely similar throughout the empire. When the main features of the Chinese character have been studied in one place and in one person, they have been studied in all, and when one train of argument has been discovered which suffices to silence the objections of one individual, it will be equally effective on all other occasions. The uniformity and invariableness of the Chinese mind is to be traced perhaps to their possessing one set of opinions on philosophy and religion; which being laid down in their ancient books, and transmitted from age to age, constitute the public and universal belief on these topics, and run through the whole mass of society. Hence the missionaries find the Chinese always using the same arguments, and starting the same objections, which having been often answered before, may be easily answered again. In the system of Chinese literature there is no harmony or continuity. The most deplorable ignorance stands in immediate juxtaposition with science of more than ordinary refinement; an astonishing accuracy and minuteness of detail are often combined with a total want of general

principles, or with principles grossly incorrect. Here and there are observable foundations of immense mental strength, on which no superstructure is erected; or, perhaps, some superstructure of so uncouth an appearance, and so useless and fragile, as to prove only the perverted ingenuity of the artist; and on the other hand, surprise is excited by the prospect of some noble and magnificent edifice, which seems to have sprung from the ground, like the palace of Aladdin, without any perceptible agency of sufficient power to call it into being. All the intellectual combinations of China are monstrous; they possess uniformly a mingled character of civilization and barbarism. The people have been from time immemorial separated from the rest of mankind, and no free intercourse has ever shaped their rude inventions into forms calculated to make them suitable to mankind in general. All that they have done is specifically Chinese; all their productions have a national character; they are stiff, contracted, and incapable of being wrought into any foreign composition.

The spoken language of China is composed of monosyllables, of which there are scarcely 350 which a European can distinguish from each other; but the Chinese are able, by various modulations of the voice, to distinguish many more—about 1300. The syntax is also very meagre; declensions and conjugations are wanting, and their place is supplied by circumlocutions. There is also a written language, expressed by about 80,000, or, according to some writers, 40,000 different characters or symbols, each representing a separate object or idea; and as this written language is common to the whole empire, the natives of the various provinces, though speaking different dialects, and mutually unintelligible when speaking their own dialect, can, nevertheless, all read the written language, and have thus a ready means of general communication. Even beyond the limits of Chinese dominion the Chinese written language is understood; and throughout Cochin-China, Corea, and Japan, it is a common object of learning. The multiplicity of characters might seem an insuperable obstacle in acquiring the language; but these are in fact compounded of 214 elementary symbols, which form a clue to their labyrinth; and by the help of which, dictionaries have been formed that enable Europeans to acquire a competent knowledge of it in a comparatively short time. It has been the general opinion among learned men in Europe that the written and the spoken languages of China have no connection or relation to each other; that the visible characters represent *things* or *ideas* directly, without reference to the *sounds*, by which the same objects may sometimes be expressed; that they are real characters, in short, which have no connection with words, and might have been invented by a race of beings destitute of the faculty of speech. But Dr. Ponceau of Philadelphia has succeeded in throwing new light on the subject, by shewing that these so-called real characters represent words only and not ideas, at least directly, and that they are not common to the other nations which surround China in any other way than the words of the French language, for example, are common to the nations of Europe; that is, that they are common to the people of those nations who have studied and learned to write them, and to speak the Chinese language along with them, and to no others. To use the Doctor's own words, "nations whose languages, like the Japanese and the Loo-chooan, are polysyllabic, and have inflections and grammatical forms, cannot possibly understand Chinese books and manuscripts, unless they have learned the Chinese language." Every syllable in Chinese is a word, and as each character represents a syllable, it follows that each character represents a word. The Japanese have a syllabic alphabet of 47 characters; and their historians relate that, in A. D. 284, their sovereign having sent an embassy to the emperor of China to request him to send a person to civilize his kingdom, Vo-nin, a prince of the imperial blood, was sent. He introduced the Chinese civilization, language, and literature; and for a long period Chinese was the only written language in Japan, and the only record of its learning. It was not till A. D. 733 that a selection of 47 characters was made from the Chinese, and applied to the Japanese language by one Kibi, a man of high rank, who modified the characters so as to adapt them to the syllables of which his alphabet was composed. The Chinese language, thus introduced into Japan, still remains there as a learned language, and is taught as such. Many of its words have also been adopted by the Japanese into their language; an event which has also happened in various other countries; but the Japanese who have not learned the Chinese language, cannot make themselves understood by the Chinese in writing any more than in speaking. Chinese books are constantly translated into Japanese and *vice versa*; a labour which certainly could not be necessary if the two nations, as is commonly believed, used the same written characters for

both languages. There are also various native dictionaries in Chinese, with Japanese explanations; and in Japanese, with interpretations in the language of China. Chinese books, with interlineary Japanese translations, are also used in Japan. Dr. Ponceau, in saying that foreigners, and even the Chinese themselves, read the Chinese written language only by translating it, and that the symbols directly represent words, is undoubtedly right; for each of the characters of which it consists has attached to it one of the 1300 monosyllabic words of the spoken language; but as these are too few to afford a distinct sound for each character, it happens, in some cases, that one monosyllabic sound represents 70 or 80 written characters, so that it is scarcely possible to read the written language aloud intelligibly even to those who can read it for themselves. Indeed it frequently happens, that, in reading a paper, the auditors are assisted by the reader making, by a motion with his hand in the air, or with his fan, the shape of the character, or at least of its key, to remove ambiguity. The same ambiguity would prevail in the spoken language itself were it not obviated by the use of expletives, that is, by compounding the monosyllables, of which the language has been said entirely to consist, into polysyllabic words. For instance, when a man is speaking of his father, a term which is expressed by *foo*, a monosyllable which has 70 or 80 different meanings, according to the different written characters which it represents, he employs *foo-chin*; and, instead of *moo* for mother, *moo-chin*. The syllable *chin*, which signifies kindred, not only removes at once all doubt as to the meaning of the speaker, but is one proof at least that the Chinese is as necessarily and inevitably, in some cases, a polysyllabic language as English itself, or any other. But that Dr. Ponceau is wrong in saying that the characters only represent words directly, and not things or ideas, is evident from the fact that each of the 70 or 80 characters represented in speech by the single syllable *foo*, conveys a distinct idea to those who read it, while the same idea could not be communicated to another person distinctly, by merely reading the monosyllabic name. In short, the real difference between the so-called monosyllabic language of China and the languages of other countries is, that in the former the written characters represent syllables with distinct meanings, while in the latter they represent the simple unmeaning sounds of which syllables are composed; but, in both, it is only by compounding syllables into longer words, in Chinese perhaps less than in other languages, that a copious and generally intelligible speech, applicable to any thing beyond the simplest ideas, or to the purposes of any other than those of unthinking savages, is, or can be produced. The educated classes throughout the country communicate with each other in the dialect of Kiang-nan, the seat of the last native dynasty, which is usually called the Mandarin language.

RELIGION.—(See pages 125 and 126.) Besides the religion of Buddha or Fo, of Confucius, and of Tao-sse, nearly all the other forms of mythology which are conspicuous in the page of history now exist in China. To use their own expression, says Dr. Milne, “her gods are in number like the sands of Havy river.” There are gods celestial, terrestrial, and subterranean; gods of the hills, of the valleys, of the woods, of districts, of families, of shops, of the kitchen; gods who preside over thunder, fire, rain, grain, births, deaths, and small-pox; and genii of the mountains, rivers, lakes, and seas, birds, beasts, and fishes. Astrology, divination, geomancy, and necromancy, every where prevail; and every one possesses spells and charms. As might be expected, the god of wealth is the most popular deity among merchants and tradesmen; and is represented with a wedge of gold in his hand. Seamen worship as their god *Tung-hai-vaung*, the lord of the east sea; and also pay their vows and burn incense to a goddess who is the exact counterpart of the heavenly patroness of the mariners of Spain, Portugal, and Italy. But all these superstitions are more or less mixed with the worship of Fo, the number of whose temples and priests (bonzes) is incalculable. These shrines are found not only in every city, town, and village, but also in private houses, where the priests are occasionally employed to instruct the children; but no temple can now be built without special permission; and the sacred edifice is used for state purposes by the officers of government, for the reception of foreign ambassadors in travelling through the country. The Chinese have no sabbath, and no division of time by weeks. They labour every day in the year, except the first, which they devote to family visiting, and the last, which they consecrate to the memory of their ancestors. They celebrate the festival of the full moon by keeping up a noise and riot all night; and during the first two days after the first full moon of the year they celebrate the feast of lanterns, on which occasion the whole country is illuminated. Every house, and every village, with all the shipping on the canals and rivers, are then lighted up with painted lanterns. This appears to be a religious festival; but its origin and history are forgotten.

Since the first arrival of the Portuguese on the shores of China, in the 16th century, the catholic church has been earnestly employed in endeavouring to convert the inhabitants to her form of Christianity; but the result of all her efforts, during three centuries, is the existence of only about 200,000 native Christians in the empire, and chiefly in the western and northern provinces. Of late years protestant missionaries have also been labouring zealously to gain proselytes to their doctrines, and have translated the Bible into the Chinese language; but hitherto without much, if with any, real success. There are also some thousands of Jews in China, whose principal residence is at *Khai-fung*, in the province of Honan. A few Mahometans are found in Shen-si and Kan-suh.

GOVERNMENT.—The Chinese Government is a sort of patriarchal despotism; limited, however, by the right of representation which is lodged in certain classes of magistrates, and still more by the obligation under which the emperor is placed, of having to choose all the agents of government, according to fixed rules, from the literary class. The members of this class form a true aristocracy, which is perpetually recruited by promotions from among the numerous students. Young men of all conditions are admitted to trial for the third literary rank; those who obtain this enter themselves as candidates for the second, to attain which is a necessary step for those who are to exercise public functions. From the second rank they may rise in the same way to the first, which qualifies them for the highest offices and employments. This institution is as old as the seventh century; its members are the only nobility of China, but their rank is not hereditary. It dies with the possessors; but, as might be expected, their children form the favoured class of students, and have the best chance of promotion. Hereditary dignities are confined to the princes of the imperial family, and to the descendants of the philosophers Confucius, Mencius, and Laokium. The supreme power is exercised by the emperor, who takes the title of Son of Heaven, and August Emperor. The succession is hereditary in one family, but the emperor selects his successor according to his own judgment or caprice. For administrative purposes China is divided into eighteen large provinces, which are subdivided into districts arranged in three classes according to their importance, and designated by the terms *foo*, *chew*, and *heen*, usually annexed to the names of their chief towns. Each governor general, or viceroy, has commonly two provinces under his charge. There are besides, in each, an intendant of the province, a superintendent of the literati, a director of finance, a criminal judge, and two intendants, the one of the salt-pits, and the other of the public granaries. Each district has likewise its particular magistrates, who are invested with administrative or judicial functions. The emperor nominates to all employments from a triple list furnished by the personal or privy council. Many reports, decreets, and other official documents are published under the form of instructions addressed to the magistrates or the people; they are published regularly in the Peking gazette, from which they are extracted and again published in the provincial gazettes, which are printed in the principal cities. When the emperor pursues any measure, or promulgates any law to which public opinion is supposed to be unfavourable, he publishes in the gazette his reasons for it. The emperor believes himself responsible to his subjects for all the calamities which they experience, such as famines, epidemics, earthquakes; and, when such occur, publicly accuses himself of having offended heaven by neglecting his duties, and imposes on himself certain penances, such as seclusion, fasting, &c. The public functionaries, both civil and military, are divided into nine ranks, distinguished by buttons of the size of a walnut, formed of different jewels and metals, which are fixed on the top of their conical caps. Their common title is *Quan*; but they are usually called by Europeans *mandarins*, a word derived from the Portuguese verb *mandar*, to command. The first rank includes ministers of state, and presidents of the tribunals, who are distinguished by a red gem; the second, viceroys and governors of provinces, who have an inferior red gem; the third, judges, treasurers, and salt-superintendents, a dark-blue stone; fourth, superintendents of circuits, and governors of counties or provincial districts, a light-blue stone; fifth, rulers of departments, a crystal globe; sixth and seventh, magistrates of districts, a white stone globe; eighth, assistant magistrates, a flowered gilt globe; ninth, village magistrates and inferior officers, a plain gilt globe. There are six supreme tribunals at Peking, to which all the affairs of government are referred, and which make their reports to the emperor for his decision and approval. The first selects, promotes, and superintends, all the civil officers of the empire, and is the centre of all power and patronage; the second has the charge of the revenue, and superintends the census of the population, taxes, coinage, &c.; the

third takes charge of all public ceremonies, and the different forms of religion; the fourth manages the affairs of the army, navy, and ordnance, and appoints the various officers; the fifth, or police department, superintends all matters relative to the detection and punishment of crimes; the sixth, or tribunal of public works, takes charge of all the palaces, public offices, mines, canals, manufactories, bridges, &c. Besides these there are a board of music, the colonial office, and the Too-cha-yuen or censors, whose office it is to watch over the words and conduct of the emperor. There is also another board of censors who preside over the deliberations of the other tribunals, and report to the emperor; and may be said indirectly to govern the empire. Under the Manchew emperors the Chinese appear to have declined in civilization; and the government is now in a state of deplorable and increasing weakness. The people have ceased to respect laws which are openly contemned by public functionaries. Piracy and smuggling are acknowledged as trades; in some districts robbery is committed openly, and in all these cases the mandarins are quieted by a share of the profits.

Since the conquest of China by the Manchews, two centuries ago, a large party has existed who are anxious to restore a native dynasty of sovereigns. The members, being closely watched, formed themselves into a secret society, ruled and organized like that of the Jesuits, from one of whom indeed, it is said, the plan of the institution was obtained. The society soon extended its branches into every province, and its members are now supposed to amount to several millions. They are united by the most solemn oaths of secrecy, and by pledges of mutual assistance; they have signs and pass-words known only to themselves; possess a common purse, and are remarkable for their implicit obedience to the commands of their unknown superior. In 1794 they made a vigorous effort to overthrow the reigning dynasty, and their ravages were not suppressed till 1802. Occasional revolts have occurred since, but the society have conducted their operations so cautiously that all the efforts of the imperial ministers have failed to discover their leaders. The connection, real or supposed, of this society with the Jesuits, was the cause of the cruel persecutions of the Chinese Christians at the beginning of the present century. The Society are called *Pe-lien-kiao* (worshippers of the flower of the nymphaea or water lily).

FINANCES.—There are no authentic documents from which any account of the public revenues can be obtained; Mr. Medhurst has given the following account of them:—"The revenue is derived principally from the land-tax, which is paid partly in kind and partly in money; it is generally a very light impost, amounting not, as some suppose, to one tenth, but more usually to one fiftieth or one hundredth of the produce. There are also taxes on pledged articles, and more particularly a heavy impost on salt; while custom-houses are established on the sea-coast, and at the most important passes in hills and junctions of rivers, so as to secure the mercantile as well as the agricultural population. Some of the revenue thus derived is kept in the provinces, to pay the army, navy, and police, and to provide against famines, while a considerable proportion is forwarded to Peking for the immediate service of the emperor and his officers. We cannot, therefore, form a correct estimate of the resources of China, unless we consider all that is sent to the capital and expended in the provinces, as being alike drawn from the labour of the people, and devoted to the service of the state. Thus the revenue of the Chinese empire will appear to be as follows:—

Land-tax, paid in money sent to Peking,	£10,581,755
Ditto, paid in grain, ditto,	4,230,957
Customs, paid in money, and sent to Peking,	493,666
Grain kept in the provinces,	31,596,569
Money, ditto ditto,	9,568,375
	<hr/>
	£56,471,322

This revenue, when divided among 361,221,900 persons, amounts to three shillings and three halfpence per head: and if that only which is sent to Peking be reckoned, namely, £15,206,378, it will not amount to much more than tenpence per head. Some persons may doubt, how a government over so great a country can be maintained for so small a sum, and how a people under an arbitrary rule can be let off with such insignificant imposts; particularly when, in a free country like our own, and in a time of profound peace, each individual contributes upwards of two pounds annually, as his share of the public burthens. But it must be remembered that China has few or no resources beyond itself; that her foreign commerce is limited, and, com-

pared with the population, insignificant; that comparatively few subsist by manufactures; and that almost all the inhabitants are dependent on agriculture. In a country, therefore, where the consumers fully equal the capabilities of the soil, and where every production is hastily devoured by a needy population, there is little left for a government to glean, or, to use a Chinese simile, to squeeze, out of the already exhausted pockets of the people. It is not unlikely, also, that the present peaceful state of the country, and the willingness with which the Chinese submit to the Tartar yoke, is to be ascribed mainly to the light and insignificant burthens pressing on the people, who would soon complain, and perhaps revolt, if more heavily taxed. But how can the government manage to maintain an immense establishment of civil and military officers, besides an army and navy of nearly a million of men, upon fifteen or even fifty-six millions of pounds sterling? To this it may be replied that the pay of a Chinese soldier is only fourpence a-day; that the salary of the highest officer under government does not exceed £8000 per annum, of which there are not many; there is no more than one officer to ten thousand people; and that most of these have no more than £50 per annum: thus it is quite possible for the government to manage a country so thinly officered and so poorly paid, upon a comparatively small sum of money. Besides which, there is no national debt in China, so that all that is gathered goes to the actual maintenance of the government, and is not expended in paying the interest on obligations formerly contracted, to be defrayed by future generations.

In the report of the Anglo-Chinese college for 1829, there is an estimate of the amount of land-tax paid in different provinces, extracted from the Ta-tsing-hwuyteen, or "Collections of statutes of the Tartar dynasty," by which it appears that the average rate of land-tax per *mow* (or Chinese acre, somewhat smaller than an English acre), is from fifteen cash to one hundred, or from one penny to sixpence: this, when calculated at its highest value, and multiplied by the number of acres in China under cultivation, will amount to about £12,000,000 sterling. This statement agrees with the common report of the natives, who affirm that from one to two per cent. of the produce is the utmost of what is exacted by the government in the shape of land-tax."

ARMY AND NAVY.—The army is numerous but inefficient; and consists principally of an undisciplined rabble, armed with matchlocks, bows and arrows, and spears. The number has been variously estimated by European writers, from about half a million to 1,954,450. The most precise account of the military force of China which we have been able to find is contained in a communication by Father Hyacinth Bitshurin to the Academy of Arts and Sciences at St. Petersburg, in August 1837. The Manchews, with the Mongolians and Chinese who accompanied them on their invasion of China, form a distinct military community, which is divided into "standards," and subdivided into sections and companies, each company consisting of 150 men. The Manchews of Peking consist of 681 companies, amounting to 102,150 men; the Mongolians quartered in that city consist of 204 companies, amounting to 30,600 men; and the Chinese 266, amounting to 39,900. The whole force of the Manchews on duty in the provinces amounts to 840 companies, or 126,000 men. To these are to be added the "wild hunters," who form 97 companies, consisting of 14,550 men. These troops garrison the principal cities and towns of the empire; but, in addition to them, there is an army of native Chinese, amounting to 660,300 men, who do the ordinary duty of posts, both within and beyond the frontiers of China. The Government maintains 3000 regular troops in Thibet, besides a number of irregulars; and in Turkestan, numerous Chinese garrisons are established in all the towns, which are furnished from the adjacent province of Kan-suh.—(*United Service Journal*, xix. 97.) This, however, is only the peace establishment; in time of war, it is calculated that 10,000,000 of soldiers may be levied; but we are assured that the greater part of these exists only on paper, and that it is very difficult to muster an army when one is required. With the exception of the men stationed on the frontiers, the whole of this mighty host consists of men of peace, who are always in garrison, and are employed in preventing any violation of law. But they suffice, such as they are, to keep the country quiet; and may be considered rather as an armed police force than an army.—(*Canton Register*, November 27, 1838.) But, since these opinions were expressed, the Chinese have come in contact with British troops, and have shown an unexpected degree of efficiency and resolute bravery; though they are ill armed, and not very expert in the use of their artillery.

The imperial navy is said to consist of 1763 vessels; of which 1036 are employed

for police purposes on the great rivers, and the rest are stationed on the sea-coast. They are of all sizes, but none of them carry more than 20 guns. The larger ships carry from 200 to 400 soldiers and seamen; the total amount of the marine force is estimated at 60,000 men, on the peace establishment.

PRODUCTIVE INDUSTRY. — The industry of the Chinese in every thing which relates to the comforts and conveniences of life is wonderful. The origin of several of the arts is lost in the twilight of antiquity, and the invention of them is attributed to personages whose existence is very doubtful. They have from time immemorial, been acquainted with the preparation of silk, and the art of making the cloths which have attracted the merchants of the greater part of Asia. The manufacture of porcelain has been carried to a high degree of perfection, which the Europeans have but lately been able to surpass. The bamboo, besides being the grand instrument of punishment, serves as a material for numerous kinds of works. Their cotton cloths are famous over the world. Their furniture, their vessels, instruments and utensils of every kind are remarkable for great solidity joined to a certain ingenious simplicity, often deserving of imitation. They have always been acquainted with the art of working metals, they make musical instruments, cut and polish precious stones. Wood engraving and block printing are as old as the tenth century. They excel in embroidery, dyeing, varnishing, and cutting ivory. The fans which they make are everywhere admired; their works in filagree are beautiful; their artificial flowers have never been surpassed, and we owe to them the invention of tinted paper. Europeans have very imperfectly imitated some of the productions of their industry, such as their vivid and unalterable colours, their paper, which is at once fine and solid, their ink, and many other things which require patience, care, and dexterity. They take pleasure in reproducing models that reach them from foreign countries, which they copy with scrupulous exactness and slavish fidelity. They even make, expressly for Europeans, objects suited to their taste; and the rate of wages is so low, that it is often found advantageous to employ them upon works which European artists could only execute at a great expense. Nearly the whole arable land is constantly employed in producing human food. Even the steepest mountains are brought into cultivation; and are cut into terraces which resemble at a distance immense pyramids ascending by numerous steps or storeys. The waters which flow at the foot of the mountain are raised from terrace to terrace till they reach the very top by means of a portable chain-pump which may be worked by two men. Reservoirs are also formed on the tops of the mountains, from which the rain-water that is collected is let down for the irrigation of the sides. The houses of the peasantry are dispersed throughout the country, and not collected in villages. The women rear silk-worms; spin cotton, and weave it into cloth, which is in general use among the common people for both sexes; they also manufacture woollen stuffs. The Chinese use no butter nor cheese, and very little milk; their principal animal food is pork; they have few horses for travelling, show, or war; the only cattle which they keep are such as are required in husbandry; even sheep are very rarely to be seen, except in mountainous districts where the plough cannot be used with advantage. Hence there are no grazing farms, no meadows, and very little pasture, while every acre of ground capable of cultivation is turned up by the spade or the plough, and converted into a rice or a corn field. Wheel carriages are rare, particularly in the south, where the roads are few and narrow, and consist generally of raised pathways through the rice fields, or of winding lanes over the mountains. The gardens are very few; a Chinese grandee delights more in artificial landscapes, laid out in a small compass, than in an extensive park, or a flower garden. Utility is every where studied in preference to pleasure.

PUBLIC WORKS. — The Great Wall begins with a large bulwark and fort on the shore of the Yellow Sea, from which it extends westward, along the borders of Peché-lee, Shan-si, and Shen-si, through a space of 1500 miles, and ends amidst nearly impassable rocks and extensive deserts. It consists of an embankment of earth, raised upon a foundation of large square stones, and cased with stones or bricks; it is generally broad enough at top for six horsemen to pass abreast. Its height varies according to its situation; in the valleys and plains it is not less than 30 feet; and in such places it is strengthened by projecting square towers, at the distance of a bow-shot from each other. There are gates at intervals, which are strongly fortified and garrisoned. This great work appears to have been completed in the third century, and was intended as a defence against the Tartars, but a great part of it is now falling to ruins. The *Yun-ho*, *Yu-ho*, or Great Canal, commences near Lin-chin, in

Shan-tung, extends across Shan-tung, and Kiang-nan, and ends at Hang-chou-fou in Che-kiang, after a course of 700 miles. In some places it is raised above the level of the country, where strong dikes prevent its waters from overflowing; in other places it has been dug to the depth of 60 or 70 feet below the surface; and throughout it has a width of 200 feet. There are no locks, but only floodgates, and in hilly tracts inclined planes interrupt and regulate the current of its waters. In every part of its course it passes through alluvial soil, which is intersected by numerous streams; the sluices are of the rudest construction. It is neither carried through any mountain nor over any valley; it is nevertheless a work of high national utility, and forms the great channel of communication between the northern and the southern provinces. By means of the Pei-ho and En-ho rivers in Pe-che-lee, the Canal, the Yang-tse-kiang, the Poyang-hou, and the Kan-kiang in Kiang-si, and the Pe-kiang in Quang-tong, there is a navigable communication between Peking and Canton, interrupted only in one place by the high mountains which separate Quang-si and Quang-tong from Kiang-si. Across the mountains the communication is formed by the pass of Meilan, cut through the top of the ridge, a work esteemed so difficult that the Mandarin who accomplished it, was honoured with a statue in one of the neighbouring temples. The Chinese are obliged, by the circumstances of their country, to pay great attention to the draining and irrigating of their lands. Especial care has therefore been taken to prevent inundations; and the labour and expense bestowed on this department is scarcely equalled in any other country. Some of their embankments are strong and well constructed; their bridges over rapid streams and broad estuaries, are constructed of solid granite, and bear testimony to the skill and perseverance of their engineers.

COMMERCE. — The internal commerce of China is much more important than the foreign; it is carried on by means of the rivers and canals, and consists principally in the interchange of the natural and artificial productions of the different provinces. The country is so extensive, and embraces such a variety in its products, that the inland traffic is sufficient to occupy a very numerous portion of the people; and this circumstance has contributed to make the Chinese neglect their maritime commerce, which once extended so far as the Red Sea. Their merchants, however, still visit the principal ports of the Eastern Seas. Their foreign commerce may be distinguished into the maritime and the inland. The former is the more considerable, and its principal mart was Canton, where it was carried on by the maritime nations of Europe and America. Their intercourse, however, was restricted by the Chinese government to certain merchants, whom the French called *Hanistes*, and the English, *Hong*, through whose intervention all commercial operations were managed. But, by treaty between the Chinese and the British governments in 1842, five ports, namely, Canton, Amoy, Fow-chow-foo, Ning-po, and Shang-hai, have been opened to European trade, and merchants are to be allowed to live there with their families, a privilege formerly denied to them at Canton. The Hong merchants are no longer to be allowed to monopolize the trade; but both foreigners and natives are to be allowed to trade with whom they please. All kind of intercourse is to be permitted without official interference; and fixed duties are to be established at all the five ports. The British part of this commerce was long monopolized by the English East-India Company; but since the abolition of their monopoly in the year 1833, the export of tea has increased **immensely**. The maritime trading towns next in importance are Hang-chew-foo, Hiamun or Amoy, Chao-ching, and Ning-po. The Spaniards of Manilla have the exclusive right of trading at Hang-chew-foo, in Fokien; Shanghai, in Kiang-nan, is the emporium of the trade with Japan. The land foreign commerce is carried on at five principal stations on the frontiers of Siberia; at Yarkhand and Aksou on the frontiers of Turkestan; at Leh and other places in Thibet; at Young-chang-fou on the frontiers of Birmah; and at Kuei-lin-fou on the frontiers of Annam. The principal articles of export, besides tea, are Nanking cloth, porcelain, rhubarb, squine, musk, ginger, badiane, mercury, zinc, borax, silks, shawls, mother-of-pearl, tortoise-shell, and other articles mentioned in the preceding section. The principal imports are, cloths and other woollen stuffs, furs from Siberia and North America, gold and silver wire, purl, and mats, glass and mirrors from Bohemia, lead, coral, cochineal, Prussian blue, cobalt, champagne wine, clocks and watches, ebony, gunpowder, sandalwood, calambac, ivory, tin, copper, birds' nests, incense, mother-of-pearl, camphor, tobacco, opium, and various other articles. The opium trade is contraband; but forms nevertheless the most valuable article of import. This drug is smoked by all classes to an enormous extent. In 1836 so many as 26,018 chests were imported into the country, valued at 17,106,903 dollars. The value of edible

birds' nests imported from the Indian Islands has been estimated to exceed £300,000 sterling annually.

DIVISIONS. — China is divided into eighteen provinces, which are subdivided into *foo*, *chew*, and *heen*; and it is a remarkable fact, that the Chinese cities have no proper names, but are all distinguished by the names of the *foo*, *chew*, or *heen* of which they are the capitals. Canton, for instance, is named Quang-chou-foo, *i. e.* the capital of Quang-tong; Nan-king is named Kiang-nan-foo, *i. e.* the capital of Kiang-nan; the capital of the empire itself, the residence of the Imperial Court, has no other name than King-szu, *i. e.* the capital, or Chun-thian-foo, the capital of Chun-thian. In consequence of there having been in China, occasionally, several simultaneous kingdoms, or, from the circumstance of the Court having several times changed its residence, the different capitals have received names indicative of their position: *Pe-king*, the north court; *Nan-king*, the south court; *Tung-king*, the east court.

TABLE of the Extent and Population of the Provinces of China, with the Principal Towns.

Provinces.	Area in sq. miles	Population.	Relative Population.	Towns.
Pe-che-lee,	58,945	27,990,874	474	PE-KING. Tong chew-foo, Tien-sing-foo.
Shan-tung,	65,104	28,958,765	445	Tsi-nan-foo, Tong-chew-foo, Hong-chew-foo.
Shan-si,	55,268	14,004,210	253	Tai-yuen-foo.
Kiang-nan, { Kiang-su, } { Gan-hwy, }	92,961	{ 37,843,501 34,168,059 }	{ 774	Kiang-nan-foo (NAN-KING), Soo-chew-foo.
Che-kiang,	39,150	26,256,784	671	Gan-king.
Kiang-si,	72,176	30,426,969	422	Hang-chew-foo, Ning-po-foo.
Ho-nan,	65,104	23,037,171	354	Nan-chang-foo, King-te-ching.
Hou-quang, { Houpee, } { Hounan, }	144,770	{ 27,370,098 18,652,507 }	{ 318	Honan-foo.
Fokien,	53,480	14,777,410	276	Wou-chang-foo.
Quang-tung,	79,456	19,174,030	242	Chang-cha-foo.
Quang-si,	78,250	7,313,895	93	Foo-chew-foo, Amoy, Chin-chew.
Yun-nan,	107,969	5,561,320	51	Quang-chew-foo (CANTON), Macao.
Kwei-chew,	60,554	5,288,219	87	Kwei-lin-foo.
Setchuen,	166,800	21,435,678	128	Yun-nan-foo.
Shen-si,	154,008	{ 10,207,256 15,193,125 }	{ 165	Kwe -yang-foo.
Kan-sub,				Ching-too-foo.
				Si-ngan-foo.
				Lan-chew-foo.
Total,	1,297,999	367,659,901	283	PEKING.

These names are spelled in various other ways: it is always difficult, and sometimes impossible to express oriental names by Roman letters, and therefore each European nation spells them differently

§ Cities, Towns, and Remarkable Places.

PE-KING (North-Court), the capital of the empire, in the province of Pe-che-lee, about 26 miles only from the great wall, in lat. $39^{\circ} 42' 15''$ N. long., $116^{\circ} 30'$ E., stands in a sandy plain, destitute of vegetation, and bounded on the west by a chain of high hills from which issue several streams that water the country. It is about 20 miles in circumference, is surrounded with high castellated walls of blue brick, outside of which there is a wet ditch. It is composed of two cities which are quite distinct; the one called King-tsing (Imperial town), called also the Tartar city, because it was built by the Tartars or Mongols during their possession of China in the 13th century, and is now inhabited principally by the Manchews; the other named Lao-tsing (old town), or Wai-to-tsing, called also the Chinese town, because it is principally inhabited by Chinese. Some of the gates are lofty and strong, and surmounted with lofty towers, which give them, at a distance, the appearance of grandeur. The streets are generally broad, and in straight lines; the largest is 60 yards wide, and nearly 3 miles in length, from east to west. They are unpaved, but clean and well kept. The houses are low, often one storey, and are built of brick, and tiled. The shops are handsomely ornamented, and the brilliancy and variety of the goods exposed for sale give them a gay appearance. The finest buildings are the temples, which are spacious and magnificent, adorned with columns, and stairs of white marble. The streets and houses of the Chinese town are very inferior in appearance to those of the Tartar city. There are, besides, 12 large suburbs, without the walls, each extending about two miles in length. The population of Peking is variously estimated at between 600,000 and 3,000,000; the city probably contains about 2,000,000. The Tartar city is composed of three towns within each other, each surrounded with its own wall. The innermost is the Tsu-kin-ching, or Imperial palace, about two miles in circumference, of a square form, surrounded with strong walls, 30 feet high, built of brick, and covered with yellow tiles. It is composed of numerous buildings, containing halls, temples, &c. and the imperial garden. The second enclosure, called Whang-ching, contains numerous large gardens, with artificial lakes, and hills, temples, and halls, and is principally inhabited by people in the service of the court. Peking is distinguished from the other capitals and great cities of Asia by a number of public institutions, resembling those of Europe, notwithstanding the great differences interposed by Chinese habits, manners, and customs. It receives its supplies from the southern provinces, by means of the great canal and the rivers of Pe-che-lee, which form the channels of a very active commerce.

In the neighbourhood of the city is the imperial summer palace, called *Yuen-min-yuen*, the round and shining garden. The palace is very large, being composed of a great number of buildings, disposed with beautiful symmetry, and separated by courts, gardens, and parterres. The face of each glitters with gold, varnish, and painting, and the emperor's apartments are adorned with the most valuable productions of China, Japan, and the Indies, and even with masterpieces of several European arts. The gardens contain about 60,000 acres, diversified with artificial hills, lakes, canals, valleys, rocks,

and islands; which are occupied by harbours, forests, pavilions, and everything most agreeable to the sight. A hundred and twenty miles to the N.E. of Peking, and beyond the great wall, is *Zehol*, a hunting-seat of the emperor, where Kien-long received the British embassy in 1793.

NAN-KING or **Kiang-nan-foo**, stands on a branch of the Yang-tse-kiang, in the province of Kiang-nan, 570 miles S. by E. of Peking. The area enclosed by the walls is much larger than that of Peking, but the greater part of it is now destitute of even the traces of buildings, and the city occupies only a corner of the enclosure. Reduced, however, as it is, it still continues to be one of the principal manufacturing towns of the empire. Its silks, paper, and cotton cloths, are preferred to those made any where else; and even in Europe the cottons were once highly esteemed, and have given their name to a species of imitation cloth called *nankeen*. Learning also continues to flourish, the booksellers' shops are amply furnished, and more physicians are sent from Nanking than from any other city of the empire. Its principal or most celebrated building is a pagoda, or octagonal tower of 9 storeys, ascended by 884 steps. The material is a fine white tile, which, being painted in various colours, has the appearance of porcelain; and all the parts are so neatly joined as to appear to form only one piece. The galleries are filled with images, and set round with bells, which tinkle with the wind; and on the top is a large pine-apple-shaped ornament, consisting, as the Chinese say, of solid gold. About 40 miles E. by N. of Nanking, in the bed of the Yang-tse-kiang, is *Kin-shan* or *Chin-shan* (Golden island), which rises almost perpendicularly from the river, and is covered with gardens and pleasure houses. "Art and nature," says Sir G. Staunton, "seem to have combined to give to this spot the appearance of enchantment." It belongs to the emperor, who has built upon it a large and handsome palace, and on the highest point are several temples and pagodas. It also contains a large monastery of priests, who are its principal inhabitants. In this part of the great river, which is here two miles wide, are numerous islands skirted with shrubbery, and rocks which rise abruptly from the water; the waves roll like those of the ocean, and porpoises are said to be sometimes seen rolling among them. *Chin-shan* stands nearly in the middle of the stream.

Sou-chew-foo, a very large city, and one of the most flourishing commercial places in the empire, stands on the east bank of the great canal, 104 miles E.S.E. of Nanking, in the province of Kiang-si; and is extolled as a terrestrial paradise. It is traversed by numerous canals, which render it, like Venice, a city on the waters; it contains a multitude of magnificent bridges, temples, and triumphal arches, and it is here that all the classes of people, whose business it is to minister to pleasure, lawful or unlawful, are trained to their respective callings. A few miles west of the city, the *Tai-hou* (Great lake), nearly 100 miles in circumference, and bordered by picturesque hills, which are cultivated to their very tops, is a place of great resort and recreation to the citizens, who take their pleasure in numerous boats, rowed chiefly by women. **Ching-kiang-foo**, in the same province, on the south bank of the Yang-tse-kiang, at the place where it is crossed by the canal, is one of the maritime keys of the empire, and is defended by a very strong garrison. **Shang-hai**, **Seang-hae**, or **Shang-hae-heen**, 60 miles E. by S. of Sou-chew-foo, has a fine harbour at the mouth of the Woosung river. The entrance, however, leads over an extensive bar, so that only ships drawing not more than 14 feet water can reach the city, which is in lat. $31^{\circ} 9' N.$, long. $121^{\circ} 4' E.$ This is, perhaps, the largest emporium of the empire, and carries on an extensive trade, equal in amount, at least, if not superior, to that of Canton.

Hang-chew-foo, the capital of Che-kiang, is the emporium of trade between the northern and the southern provinces. It is the famous *Kinsai* of Marco Polo, the capital in his time of southern China; and is 90 miles to the S. of Sou-chew-foo. The whole intervening space is a rich and beautiful country, containing in many places extensive forests of mulberry trees, which afford abundant food for the silkworms. Hang-chew-foo is situate between the basin of the great canal which ends here, and the river Chen-tang-chaung, which falls into the sea, at the distance of 60 miles east. The tide when full increases the width of the river to about four miles opposite the city; and renders it the channel by which great quantities of merchandise are received and exported to and from the southern provinces. But there is no water communication between the river and the canal, so that all goods arriving either way must be landed at the city. The population is very large. **Ning-po-foo**, in lat. $29^{\circ} 33' 12'' N.$, long. $121^{\circ} 17' E.$, is a very beautiful town, with an extensive trade in raw silks, silk piece-goods, and green teas. It stands upon a creek, and, till the middle of last century, contained an English factory. Large vessels can proceed only so far as *Chin-hae*, at the entrance of the river, but ships of 300 tons may anchor before the city, which is about 12 or 15 miles from the sea. **Sikpo** (Ship-po), south of Ning-po, has an excellent land-locked harbour; and **Cha-po** (Cha-poo), about 70 miles N., is the Chinese emporium for Japan.

In the province of Fokien are: **Hok-chew** or **Fou-chew-foo**, the capital, 10 miles from the mouth of the river Si-ho or Min-kiang, which is broad and navigable up to the city. The entrance of the river is in lat. $26^{\circ} 6' N.$, long. $119^{\circ} 55' E.$, and is rather intricate. Numerous villages and hamlets occupy beautiful situations on its banks; while fertile fields, producing wheat, naked rocks, cascades, islands, and plains of sand give a diversified aspect to the scene. The city is one of the largest and most populous in China, and is distinguished for its commerce and the industry of its inhabitants, as well as for the number of literati who make it their residence. It is also remarkable for a great stone bridge, a ride but substantial structure, built quite across the broad river. **Amoy** or **Emooi** (*Heamun*), in lat. $24^{\circ} 27' 26'' N.$, long. $118^{\circ} 10' 30'' E.$, is situate on an island, with an excellent harbour which admits ships of the greatest burden. It carries on a very extensive trade with the Indian Archipelago, Formosa, and all the maritime provinces of China. The city is very extensive, and contains at least 200,000 inhabitants. Vessels can sail up close to the houses, load and unload with the greatest facility, have shelter from all winds, and in entering or leaving the port are in no danger of getting on shore. **Chin-chew** (Tseuen-choo), 50 miles N.E. of Amoy, a seaport town on a small river, with a bay obstructed by shoals and banks, so that only small brigs can proceed to the city.

CANTON or **Quang-chow-foo**, called also by the natives *Sang-ching*, is situate in lat. $23^{\circ} 7' 10'' N.$, long. $113^{\circ} 14' 30'' E.$, on the Choo or Si-kiang (Pearl river), 100 miles from the sea, and surrounded by canals, branches of rivers, rice fields, and towering barren hills. It is a very ancient city, and was recently the sole emporium of the European and American commerce with China. The city is of a square form, surrounded with walls built of stone and brick, with a line of battlements and embrasures, and pierced with sixteen gates. It is divided by a wall into two parts, called the old city and the new city, the whole circumference of which can be walked round at a quick pace within two hours; but the suburbs are fully as large as the city itself. The European factories are outside the walls on the banks of the river, and are thirteen in number. They are, without doubt, says Gutzlaff, the most elegant buildings in the empire, though a European might find fault with them, and view the factory comforts with contempt. There are about 600 streets in Canton, most of which are narrow and crooked, and none at all to be compared with the old and new China streets near the factories. Few of the houses are splendid; the dwellings of the poor are exceedingly crowded; and, even in the houses of the wealthy, if we except those of a few Hong merchants, there is no real comfort. The governor's palace, a very spacious building, stands near the Yew-lan gate. The other public buildings and the temples are very numerous. The population has been variously estimated between 75,000 and 1,500,000. Many thousands of the people live continually on the water, in a sort of floating houses ranged in lines like streets. The foreign trade was transacted by means of a certain number of merchants called *Hong*; and the imperial officers, to whom communications were made through the

Hong, were the Tsung-tuh, governor of the two Quang provinces, who generally resides at Canton, though his proper official seat is at Shaou-king-foo, about 100 miles to the westward; the Foo-yuen, or Lieutenant-governor; the Hae-kwan-keen-tuh or Hoppo, the collector of the customs, who has the entire direction of foreign trade. All matters, however, of importance are communicated to the Tsung-tuh, who reports to the Emperor what is worthy of his attention. The European and American ships used to anchor at *Whampoa*, a small and wretched village on an island about 14 miles down the river. Each ship on its arrival engaged a Hong merchant, who became surety for the good behaviour of the crew, and for the payment of the duties; and with him the greater part of the business was transacted. The custom-house officers are very numerous. All of them live by extortion, and are, without exception, venal. *Macao*, in Chinese *Aou-mun*, "the entrance to the bay," a Portuguese town, is situate on a small peninsula, nine miles in circumference, at the southern extremity of a large island (Heang-shan) formed by two branches of the river of Canton. It is a handsome well-built city; and the population is estimated at between 12,000 and 30,000. The Chinese government interdicts all communication between Macao and the neighbouring country, and a wall is built across the isthmus, and closely guarded, which no European is allowed to pass. The peninsula is rocky; the cliffs are of various picturesque forms, presenting fine views of both sea and land. A garden and a cave are still pointed out as the haunt of Camoens, the author of the *Lusiad*. The foreign merchants used to leave their families here, while they proceeded to Canton for the purposes of trade. Macao is near the sea, just within the entrance of the great western channel of the river or gulf of Canton. It had an excellent harbour, but the depth of the entrance has decreased to two fathoms, and large ships are therefore obliged to lie in the roads, which are much exposed. The *Bocca-Tigris*, or proper mouth of the river, lies to the north of Macao road, about 50 miles by the navigable channel of the gulf.

Nan-tchang-foo, the capital of Kiang-si, upon the Kan-kiang, a very large town, is the centre of the porcelain manufactures. It has also a great trade in silks and turs; and produces an immense number of idols. *King-te-tsin*, on the Po, a large town to the east of the Poyang lake, is the largest porcelain manufactory in the world. It contains not fewer than 500 furnaces, and is said by the missionaries to have 1,000,000 of inhabitants. Its site is marked by the clouds of smoke by day, and pillars of fire by night, which give it the appearance at a distance of a great city on fire. No foreigner has ever been admitted within its precincts, lest he should make known the secrets of the processes there carried on. China contains many other large cities and towns, but these, however important to their natives and the imperial government, have never acquired a European fame, nor been visited by any other Europeans than a few Catholic missionaries. The kingdom is said to contain altogether 1572 towns, 2796 temples, 3153 bridges, 10,809 public buildings, 765 lakes, and 14,697 mountains; all specially enumerated and described by Chinese writers. Large and flourishing cities are found only where there is ready water communication with other places. The greatest sameness exists in all the towns. In the larger towns are a few well-paved streets, lined with shops; but most of the streets are very narrow, extremely dirty, and lined with mere hovels. The suburbs of many cities are much larger than the cities themselves, and it is not unusual to see a large walled space without houses, where there was formerly a city. Villages and hamlets have often a fine appearance at a distance; but internally they are only a mass of houses irregularly clustered together, without furniture or comforts, and filthy in the extreme. The grandeur of the natural scenery is often as striking as in many parts of the world. Commanding situations are chosen for temples, which serve likewise for taverns, stages, public halls, and gambling-houses. The building of houses is regulated by law, and none is allowed to exceed a certain size. The public buildings have little to recommend them. — (*Bulbi's Abregé*, p. 771; *Sir G. Staunton's Account of Macartney's Embassy*; *Ellis's Account of Lord Amherst's Embassy*; *Gutzlaff's Voyages*, China Opened, and *History of China*; *Medhurst's China*; *Downing's Fenqui in China*; *Davis's China and the Chinese*; *Rev. Howard Malcom's Travels*; *Voyage of the Amherst*; &c. &c. &c.)

§ Subject territories beyond China Proper.

I. The western part of the province of Kan-suh, comprising *Barkol* and *Ouroountsi*, with the country between these places and the ancient western limits of Shen-si.

II. *Thian-shan-pe-lou*, or the country to the north, and *Thian-shan-nan-lou*, the country to the south of the Celestial mountains, form together what the Chinese call *Tsin-kiang*, or the *New frontier*. They are both dependent on the military governor-general who resides at Ili or Ele, and have been, since 1769, a regular province of the empire. *Thian-shan-pe-lou* comprises, 1. *Soungaria* or *Zun-garia*, subdivided into three military divisions, which bear the names of their chief towns, *Ili* or *Goulja*, *Kour-kara-oussou*, and *Tarbagatui*. 2. The country of the Kirghiz, which comprises a part of the territory of the Kirghiz of the Great Horde, who dwell around lake Balkash, and a part of the country of the *Burut*, in the neighbourhood of Lake Zaisang. 3. The *Torgot* country, which comprises the territory along the upper Ili, assigned by the Emperor of China to the remains of the *Torgots* or *Torguths*, who, in 1770, migrated from the banks of the Volga to place themselves under his protection. *Thian-shan-nan-lou* or *Little Bukharia*, formerly divided into eight principalities, tributary to the empire, is now divided into ten districts which are entirely subject, and bear the names of their chief towns, namely, *Khamul* or *Hami*, *Tajan*, *Karashar*, *Koutshé*, *Sarum*, *Aksou*, *Oushi*, *Kashgar* or *Kashkar* or *Cashgar*, *Yarkhand*, and *Khoten* or *Khotan*. Aksou may be regarded as the capital of the country, as it is the residence of the commander-in-chief of all the troops in this division of the empire. It was in this province, and particularly in Cashgar and Yarkhand, that a few years ago the Turkish princes revolted, and carried on a desultory warfare against the Chinese.

III. The country of the *Mongols of Hoho-nor* or *Khokho-noor*, divided, according to Klaproth, into 30 banners. This race inhabit the very high mountainous country around the lake *Hoho-nor*, and are, properly speaking, *Kalmucks*. This region contains the sources of the Whang-ho, and its southern slope sends forth the Kin-cha-kiang, one of the principal branches of the Yang-tse-kiang, the Saluen, and the May-kuang or river of Cambodia, three of the largest rivers of Asia.

IV. *Thibet* or *Si-zsang*, subdivided into, 1. *Oui*, which contains *H'assa* (Lassa), *Botula*, and *Jiga-guengzar*. 2. *Zsang*, which contains *Jikadze*, a town of 30,000 inhabitants, according to Klaproth; *Jade-lumbo* (Teeshoo-lombou), the residence of the Bantshan-lama; *Ghuandze*; *Phari*, a small fortress not far from Mount Chumulari; *Chak-kote*, a commercial town of 1000 houses near Dhwalagiri; *Bladi* or *Palte*. 3. *Kham*, which comprises *Bathang*, *Tsiando*, *Soumang* or *Sourman*, *Souk*. It appears that the eastern part of this province has been united to the Chinese province of Setchuen. 4. *Ngari*, which comprises several small states tributary to the Dalai-lama. Their chief towns are *Choumarté*, *Bourang-dakla*, *Deba*, the capital of the *Undes* or *Unadest*, and the residence of a lama; *Toling*, the residence of a grand lama; *Ladakh* or *Loh*, the capital of Little Thibet; *Garlou* or *Gor-lope*, a Chinese military post. The eastern part of this province is occupied by Mongol tribes named *Khor* or *Charai-gol*; and *Ladakh* is an independent kingdom or principality.

V. The country of the *Deb-Raja* or *Bhotan* and *Bisni*, both already described as being within the natural limits of India. They are dependent upon, but are not properly subject to China.

VI. *Mantchouria*, or the country of the Manchews, divided into three departments or shires:

1. *Ching-king*, which comprises Ching-yang or Moukden, Foung-thian, the archipelago of Leao-tong or of John Potocki; 2. *Kirin*, which comprises Kirin, Bedoune, Ningouta, Tontson, a place of exile for Chinese criminals; 3. *Saghaliën-oula*, comprising Saghaliën-oula-hotun, Tsitsikar, Kallar, and the northern part of the island of Tarrakai or Tshoka or Seghalien.

VII. *Mongolia*, in which we must distinguish:—1. *The country of the Mongols*, subdivided into *Kortsin*, where are found the ruins of the towns Almatou and Sibé; *Tourbet*; *Jalait*, where are found *Chokoto*; *Gorlos*, containing the ruined towns of Loung-ngan, *Aokhoto*, and *Bar-khoto*; *Arou-Kortsin*; *Toumet*, containing the ruined town of Kara-khoto; *Karatsin*, containing the ruins of several ancient cities, and the Buddhist temple of Kou-youan-ming-szu; *Aokhan*; *Naiman*; *Oungni-out*, with the ruins of Jao-tsheou; *Khalka* (left wing); *Jarout*, where there is a celebrated temple of Buddha-Sakyamouni; *Abakhai*; *Abakhanur*; *Khaotsin*, where we find Barin-khoto and the tombs of the Khitan emperors; *Kesikten*; *Souniout*; *Dourbon-Kochoehn*; *Kha'ka* (right wing); *Toumet* of *Koukou-Khoto* (in Chinese, Kwei-wha-Ching), the residence of an incarnate god; *Ourat*, where we must place the ancient country of Tenduc or Thian-te, mentioned by Marco Polo, and containing several celebrated temples; *Ordos*; *Chakhar* or the Frontier Mongols, in the neighbourhood of Shan-si; the *Districts of the eight pasturages* belonging to the Chinese Government, where was situated the town of Chao-naïrcan-soumé, formerly called Kai-phing, which, according to Klaproth, is the Clemenfou of Marco Polo, the summer residence of the Mongol khans of the dynasty of Yuan. 2. *The Country of the Khalka*, which comprises the ancient country of the Khalka, a part of the desert of Gobi, the country of the *Ourianghai*, and a portion of that of the *Elcuths* or *Oelet*. Its principal towns are: *Ourga* or *Kurcn*, *Mai-tma-tshin*, *Oudia-soutai*, the residence of a Manchew general, commander-in-chief of the troops in this province. Several hordes of Kalmucks wander in this elevated region. In *Ourianghai* live the Soyotes, who sometimes indulge in cannibalism. According to Klaproth, it is in this part of the empire that we must place *Karakhorin* or *Karakorum* or *Caracorum*, the ordinary residence of the first successors of Zenghis Khan, and consequently the capital of the largest empire that ever existed. It was there that Kublai and Argoun received the ambassadors of all the princes of Asia, and of several from Europe and America.

VIII. *The Kingdom of Corea.*

These eight provinces comprise an immense extent of country of very diversified surface, and possessing different climates and natural productions.

MONGOLIA is an elevated valley or table-land inclosed between the Altai mountains and those of Thibet, and intersected by chains of lofty granite mountains, the summits of which are in many parts clothed with a variety of trees. Numerous rivers, abounding in fish, flow at the foot of these ridges, and pasturages and cultivated fields interrupt, at intervals, the monotony of the sandy and stony soil of which the greater part of the country consists. The desert of Gobi is intersected from east to west by mountains less elevated than those to the north. Notwithstanding the scarcity of water and pasture it is almost everywhere covered with flocks of sheep and goats, herds of large camels, vigorous though small horses, and oxen, undisturbed by insects or reptiles. The yellow sand, which forms the surface of the desert, is generally not loose and moveable; and water is found in wells from seven to ten feet in depth. To the northward, however, of Hoho-nor it assumes a most terrific appearance, being there covered with semi-transparent shingles, which reflect the sun's rays and render the summer heat so intense that not even a blade of grass can grow among them. The arid soil ends at the southern limit of the Gobi. The country of the Tsakhars, of the Ordos, and of several Mongolian hordes, who live to the south of the steppe, is adapted for tillage, and sufficiently well watered. Nearer to the great wall of China, the districts of the Eastern Mongols form a fertile country. The climate is very different from that of the countries of Europe situate in the same latitude (between 40° and 50° N.). The great elevation of the country, and an abundance of natron are probably the most active causes in producing the greater degree of cold which is experienced in Mongolia. In October and November 1820, the Russian embassy found Reaumur's thermometer to vary between 10° and 18° below zero, = between + 9° and — 9° of Fahrenheit; but cold as the climate is in winter, it is, on the contrary, in summer almost as hot and parching as in Arabia. The pines, fir, birch, ash, elm, and white poplar, grow on the mountains of Northern Mongolia, and in the same region are found red currants, wild peaches, and various shrubs. Besides the domestic animals already mentioned, there are numbers of wild horses, boars, goats, bears, wolves, hares, foxes, sables, and squirrels; with cranes, wild geese, ducks, moorowl, quails, and swans. The Mongols being obliged by their pastoral habits frequently to change their places of abode, have to content themselves with a little wheat, millet, and barley, of their own sowing, and to depend for the greater part of their subsistence on the produce of their flocks and herds, and the corn which they receive from China in exchange for their sheep and other animals. Their improvidence in regard to bread exposes them sometimes to absolute want in winter, when their flocks likewise suffer from extreme cold, or disease. They are naturally warlike, and have not lost the remembrance of the victories of their ancestors over the Chinese; the name of Zenghis Khan is still in high repute among them, and they still point out his several places of residence. But the long peace which they have enjoyed since they became subject to China, in the latter half of the 17th century, has rendered them more strikingly remarkable for simplicity of character, frankness, kindness, and hospitality, than for traits of a martial spirit. Yet they still are fond of horse-racing, wrestling, and archery. In religion they are Buddhists, and have among them a great many *lamas* (spiritual mothers), and no less than ten of that superior order styled *Kutukhtu*. The Mongolians worship one supreme God, but regard the Kutukhtus as his vicegerents, who, they believe, know the past, the present, and the future, have the power to remit sins, and do not die, their soul only migrating to another body. The Dalai-lama of Thibet is the superior of the Kutukhtus, and the supreme head of the religion, and used to point out the child into whose body the soul of the deceased Kutukhtu had migrated; but that privilege is now reserved to the emperor himself. The lamaic religion contributes to soften their manners; crimes are seldom committed; and, when they do occur, are always severely punished. Though they have neither artists nor manufacturers, and depend on China for their supply of manufactured goods, they dress themselves carefully and expensively; and their tents usually contain a variety of furniture and conveniences, besides altars and idols. They live principally on milk, butter, and cheese, and only in case of great necessity eat the flesh of the camel or horse. They drink koumiss, a fermented liquor made from mare's milk. They beguile their idle hours with songs, which are very flattering to their ancestors, and betray a secret dislike to their Manchew rulers. Polygamy prevails among them, and divorces are frequent. Their trade is almost entirely with China, with which country they exchange sheep, cattle, and silver bars for manufactured goods and tea. The country is divided into several principalities, which are independent of each other, but all recognise the supremacy of China; and though the Chinese politicians trust to this division of power for the maintenance of their authority, yet, for greater security, they have placed Mongolia under military rule. All the hordes are divided into bands, regiments, and squadrons; the officers of which are invested with both military and civil powers; and over them inspectors are appointed by the emperor. Every three years the chiefs of the principalities hold a general diet. The dignity of prince is hereditary in the eldest son alone, the younger sons falling into the class of poor nobility. Each prince pays the emperor a tribute of cattle, as an acknowledgment of his supremacy, but receives in return presents of much greater value; and not seldom an imperial princess for a wife. The supreme administration of Mongolia is vested in

the board or tribunal of foreign affairs at Peking.—(*Travels of the Russian Mission through Mongolia to China*, &c., in 1820-1, by *George Timkowski*. London, 1827.) The *Khalkas*, or black Mongols, are described by Gerbillon as being, next to the Hottentots, the dirtiest and ugliest race he ever saw. They possess the north-eastern deserts to the south and south-east of the Baikal. The *Kalmucks*, who possess the western part of Mongolia, Thian-shan-pe-lou or Soongaria, and the western part of Kan-suh, do not differ materially from the Mongols. They call themselves *Derben Orwat*—the four brothers, or allies; and are divided into four nations, called *Choshotes* or *Eleuths* (called *Sifans* by the Chinese), who live in the vicinity of lake Hoho-nor; *Soongares*, who give their name (Soongaria) to the country they inhabit; the *Torgotes* or *Torguths*, already mentioned; and the *Derbetes*, some of whom have joined the Torgotes, and others have attached themselves to the Soongarians. The Kalmucks live in tents or cabins of hurdles, and are quite nomadic in their habits. The few towns in their country are inhabited principally by Bukharians and Chinese. They have three distinct classes of society; the nobility, or "white bones;" the common people, or "black bones," who are slaves; and the *lamas* or clergy, who are sprung from both, and are freemen. The internal concerns of the tribes are managed independently by their princes, who sometimes used to combine for common objects, and elected a contaysha, or king, to direct the general concerns. In religion they are followers of the Dalai-lama, and are in complete subjection to the dominion of their priests, to whom they commit the direction of all their affairs; and nothing is done without consulting a gylong (or gellong) who pretends to interrogate the gods by sorcery. The priests live in luxury; they are enjoined to celibacy, but the purity of their life is somewhat questionable. *Goulfa*, the chief place in Soongaria, is a large town of 10,000 houses; it stands on the river Ili, and is the entrepot of the commerce of central Asia with its western and eastern regions. *Ourga* or *Kusen*, south of Lake Baikal, contains 70,000 inhabitants.

LITTLE BUKHARIA, or THIAN-SHAN-NAN-LOU, forms a wide plain, extending eastward from the Belur-tagh, and is watered by numerous streams, which find their way to the Loknor (lake of Lop), or are lost in the desert. *Cashgar* is the most westerly portion, and appears to be flourishing under Chinese sway; the fields, being carefully cultivated, produce large crops of grain, and the fruits are of peculiar excellence. Its chief town, which bears the same name, was once the capital of a kingdom; and is still a large and flourishing city, with nearly 50,000 inhabitants. *Yarkhand* or *Ierkhand*, not far to the south-east, is a somewhat larger city; and stands in a fertile plain, rich in fruit and grain, bordered by hills on all sides except the east, in which direction its river flows. Its climate is dry and agreeable; snow seldom falls, and even rain is rare. *Eela*, another city, whose situation seems not exactly known, is said to have 75,000 inhabitants. *Khoten*, once the capital of an independent kingdom, of considerable extent and power, lies south-east of Yarkhand, but very little is known of the country. The inhabitants are Mahometan Turks, who are allowed to conduct their own government, while the Chinese collect the revenues and guard the frontiers. People entering the country for the purposes of trade, from Bokhara and Thibet, are not allowed to proceed farther than Yarkhand; and, as they enter the Chinese dominions, are placed under the charge of certain persons who are responsible for their behaviour. The frontier is guarded by a chain of military posts, at which every package brought by the caravans is carefully examined; and permission is then given to proceed to Cashgar and Yarkhand, where duties of no very oppressive amount are exacted. So thoroughly organized is this system of police, that it is said to be impossible to elude its vigilance. A native who was suspected in these countries, and was afterwards in the service of Captain Burnes, remained in confinement for three months, and was at length dismissed by the road he had come, after a likeness of him had been taken. Several copies of the picture were dispatched to the frontier towns, with these instructions:—"If this man enters the country, his head is the emperor's, his property is yours." "I need not add," says Captain Burnes, "that he has never since sought to extend his acquaintance in the Chinese province of Yarkhand."—(*Burnes' Travels*, II. 233.)

MANCHOURIA, or the country of the Mandchews, and COREA (V. and VI.) form together one geographical region, and occupy the wide extent of country which lies along the eastern coast of Asia, between China and Siberia. Their northern border is a part of the Altai range of mountains; another range called *Seih-hih-tih*, forms the coast extending from the mouth of the Amoor to the southern extremity of Corea, and constitutes the nucleus or skeleton of that peninsula; while a third range, stretching in a direction from north to south-west, divides Mantchouria from Mongolia; and between these two cross ranges there appears to be a mountain ridge, or high land at least, which divides the basin of the Amoor and its affluents from the waters that flow southward to the Yellow Sea. The greater part of Mantchouria is occupied by the basin of the Amoor and its affluents. This great river is formed at Baklanova, on the Russian frontier, by the confluence of the *Anon* or *Onon*, called also *Chilka*, and the *Argun* from the west. It then makes a long circuit through Daouria, and enters the sea in lat 53° N., after receiving from southern Mantchouria the waters of the *Songari-uli*, and the *Usuri* or *Usabi*, with various other streams. Deep and still it presents no impediment to navigation; it has neither rocks nor shallows; its banks are lined with magnificent forests, and it is admirably suited as the outlet of the produce of south-eastern Siberia; but the jealous policy of the Chinese prevents its being used for purposes of commerce. The northern part of Mantchouria is the original seat of the present imperial family, who conquered China in 1640. It appears to be diversified by rugged mountains, covered with thick forests, and separated by valleys of considerable fertility. What is raised only in the most favoured spots; oats being the general object of cultivation. The most valuable product, however, is gin-eng, the universal medicine in the estimation of the Chinese, who boast that it would render man immortal were it possible for him to be so. It grows upon the mountain sides. The shores along the ocean are covered with magnificent forests, but are in a state of nature. Its few inhabitants, named *Keyakur* and *Feyak*, do not even hold any intercourse with the interior, but live entirely independent, subsisting by fishing; and, though very poor and uncivilized, they appear to be mild and well disposed. The Mandchews are somewhat civilized; they possess even a spoken and written language essentially different from that of the Chinese, or any other nation of central Asia, and have many radical sounds which bear a close affinity to those of the languages of Europe. They belong to the Tongouse race, and are divided into several tribes, differing slightly in the degree of civilization. They are more robust in their figure, but have less expressive countenances than the Chinese, and their women have not their feet cramped and distorted. The *Daourians* or *Ducheri*, who possess a large portion of the banks of the Amoor (called from them Daouria), consist of Mandchews mixed with Mongols. The Mandchews generally appear to be a rude, half-civilized people; and their conquest of China has greatly injured their native country, as the leading families, and ambitious individuals have naturally followed the court. They have neither temples nor idols, but worship one supreme being, whom they style the emperor of heaven; yet their religion appears to have some affinity with Shamanism. Mantchouria is divided into three provinces:—1. *Chun-king*, *Moukden* or *Leao-tong*; 2. *Kirin*; and 3. *Chichikar* or *Tsitsikar*. *Leao-tong* lies round a gulf of the Yellow Sea, and is separated from Corea by considerable ranges of hills, the most celebrated of which is the *Chang-pih-sang*, or long-white mountain. A part of the country produces abundance of wheat, peas, and rhubarb, the staple articles of export to China; but the soil is mostly poor, the harvests frequently fail, and famines are not uncommon. Hemp is the plant which best repays the cultivator; it reaches the height of seven or eight feet, and sometimes more. Potatoes have also been recently introduced from Russia, and thrive very well, yielding a good produce. The climate is very cold; the sum-

mers are not and snort; but the winters are long and dismal. The cold sets in during October; when the rivers are frozen, and continue so till March. The changes from heat to cold are so sudden that in a few hours the thermometer falls from 40° to 10° , and a fine autumnal afternoon is often succeeded by a dismal winter night; and yet the vine, the chestnut, and the walnut thrive. The Chinese greatly outnumber the Manchews, who are here an indolent, poor, proud, and contemptible race. The capital of the province is *Moukden* or *Chin-yang*, in N. lat. $41^{\circ} 56'$, and $7^{\circ} 11'$ E. of Peking. The Chinese emperors have used all their influence, and expended much money in endeavouring to render Moukden a great and elegant city, but to no purpose; for, though the inner town contains some buildings in the highest style of Chinese magnificence, those in the outer city are mere huts. *Kao-choo*, near the capital, is a place of very great trade, situate on a shallow river about 8 miles from the sea; its port is *Shang-hae*, a small place near the shore. *Kin-choo* or *King-tcheou*, is also a large emporium; and exports great quantities of drugs, pulse, and flour; and the trade is so brisk that more than a thousand junks can obtain cargoes. It is situate in N. lat. $49^{\circ} 10'$, on the N.W. side of the gulf. *Kirin* district (*Kirin-oula*) which extends along the coast from Corea to the Amoor, is a dreary country, with a very cold climate; the frost sets in in September, and the winter lasts for seven months. *Kirin-oula-hotun*, the capital, in N. lat. $43^{\circ} 46'$, is a paltry place, surrounded by a mud-wall; but as the tombs of the emperor's ancestors are in the vicinity, it is deemed a sacred spot, and a place of pilgrimage which the emperors occasionally visit. The only other places worthy of notice are *Ula*, the best built town in the district; *Pedue*, *Pedune*, or *Hetoune*, 45 leagues N.W. of Kirin; and *Ninguta* or *Ningoota*, E. by N. a place of great trade. *Chichikar*, called also *Sighalien-oula*, includes the north-western and northern parts of Mantchouria; the climate and productions are much the same as those of Kirin. *Chichikar* or *Tsitsikar*, the capital, in N. lat. $47^{\circ} 26'$, is surrounded with a palisade lined with a rampart; the inhabitants are mostly Chinese exiles or merchants. *Saghaliën-oula-hotun*, on the Amoor, N. lat. 50° , is the best inhabited town. The island of *Saghaliën*, called by the Manchews *Saghaliën-anga-hotu*, and by its natives *Choka*, extends 590 miles from N. to S. along the coast of Mantchouria, from which it is separated by the narrow channel of Tartary. Its inhabitants are a very poor people, destitute of horses or oxen; but they are hospitable, and carry on some trade with Japan and Mantchouria. They are tributary to the Manchews, who call them *Orun-Chun*, *Kooyeh*, and *Feyak*.—(*Gutzlaff*).

COREA extends in length 610 miles, by 250 to 230 at its northern and southern extremities, but, at the neck of the peninsula, it is only 140 broad. It lies between the Yellow Sea on the west, and the Sea of Japan on the east. The only known feature of its physical geography is the existence of the high chain of mountains which stretch through it, at a short distance from the east coast. The general inclination of the greater portion of the country is towards the Yellow Sea; the eastern coast is precipitous and rocky; the western is skirted by innumerable islands, which were first discovered during the voyage of the *Alceste* and *Lyra* in 1816. Though in the latitude of Italy, Corea is said to have a cold climate; but the soil is fertile and well cultivated. The mountains of the northern part are covered with vast forests; their only other produce is ginseng. The southern provinces abound in rice, millet, and a species of panicum, from which a vinous liquor is made; and also in hemp, tobacco, lemons, and silk. The Coreans are a well-made race, with an agreeable physiognomy, and very polished manners; the arts, the sciences, and the language of China have been introduced among them. The literati form a separate order in the state, and make use of the Chinese language and characters; but the vernacular tongue is quite different, and has an alphabet of its own. Their religion is the same, or nearly the same, as that of China. The country forms a separate kingdom, whose ruler is absolute within his own dominions, but is, nevertheless, a vassal of China, and sends annual presents and ambassadors to Peking. The country was formerly defended from the Manchews by a great wall or rampart along its northern frontier, which, it is said, is now, like that of China, falling to ruin. The Korean towns have nearly the same general appearance as those of China; but the houses are built of mud, without art, and are inconvenient. *King-ki-tao*, nearly in the centre of the peninsular part of the kingdom, is the capital.

THIBET, TIBET, or TUBET or TOBBAT, is a region of table-lands, deep valleys, and high mountains, lying between India on the south, from which it is separated by the Himalayas; China and Birmah on the east and south-east; Kan-suh, Gobi, and Little Bukharia on the north; and the unexplored countries, forming the basin of the Upper Indus, commonly called Little Thibet, on the west; being about 1350 miles in length, by 350 or 400 in breadth. The native name is *Pout* or *Bhout*, or, adding the termination signifying country, *Bhout-yid*, Boodha's country. The physical structure of the country, in respect of mountains and lakes, has been already described in our general geography of Asia. The most remarkable feature which remains to be mentioned is the valley of the Sanpoo. This river rises on the north side of the Himalayas, near the sources of the Ganges and Sutlej, but flows eastward through a deep valley of 1000 miles in length, carrying with it all the surplus waters of this part of Thibet. Its termination is not yet certainly known. Klaproth believes it to be identical with the Iradwy; but it most probably pours its waters into the Brahmapoota; and the recent discoveries in As-sam seem to confirm this opinion. With respect to climate and natural productions, it is unnecessary to repeat what we have said upon these subjects.—*See ante* p. 626. The people are said to be mild and honest, of a stout figure, and possessing but little of the Mongolian features. The complexion is brown, but enlivened with a mixture of red. Religion is the basis of both their political and their social system; it is a variety of Buddhism, and the clergy are the political rulers, as well as the private directors of the whole country. Every district has its lama, or bishop; the chief of these spiritual sovereigns is the Grand or Dalai-lama, who resides at Lassa. Next to him is the Teshoolama, who resides at Teshoo-lomboo. These are both incarnations of the deity, which pass successively by transmigration from one body to another. The priests form the aristocracy of the country, they reside in companies in large mansions, which unite the characters of convent and palace. They are said to be generally mild and unassuming in their manners, and in their behaviour to their inferiors; all the wealth of the country seems to centre in their body, while a general poverty pervades the rest of the community. A singular species of polyandry exists among the Thibetans; all the brothers born of one mother have but one wife in common, who is selected by the eldest. It never happens, it seems, that she has any preference for one of her husbands; love and jealousy in their rudest forms are feelings which seem to be unknown to these people. Their ordinary dwellings are very rude, consisting of rough stones heaped together without cement, and with flat terraced roofs. The religious buildings, however, which combine the triple character of temples, monasteries, and palaces, sometimes display extraordinary splendour. That of *Pootula* near Lassa, the summer residence of the Dalai-lama, is said to contain 10,000 apartments filled with gold and silver images, and to have its roof richly gilded. Thibet is neither an independent kingdom nor a province of China; it is merely a geographical region divided into a number of states, the majority of which pay a small tribute to the Dalai-lama, who is himself, as well as all the rest, under the protection of the emperor of China. The emperor's residents, however, at the courts of the sovereign lamas, have, of late years, acquired so much influence in the internal administration of the country, that it may be regarded as now entirely dependent. The frontiers, as in other parts of the empire, are strictly guarded against the intrusion of strangers.

Lassa or *H'assa*, the capital of the Dalai-lama, and the ordinary abode of the *taxin* or Chinese resident or viceroy, situate upon an affluent of the Sanpoo, is a large well-built city, with houses of two

or three storeys. It has in the midst of it an immense temple, formed of an assemblage of buildings, with a bazaar around it. The population is large but fluctuating, owing to the constant arrival and departure of pilgrims, who come from all parts of the realms of Buddha, to this sanctuary of Lamaism. About 8 miles N. W. of the city is the vast temple of *Bræ-poung-chong-pa*, which is attended by more than 5000 lamas; and in the neighbouring plain are 21 other temples. *Jigagounggar*, near the right bank of the Sanpoo, though neither marked in our maps, nor described in our books of geography, is a large and important city of 20,000 houses. *Jikadse*, also near the right bank of the Sanpoo, is said to have 23,000 families, and a garrison of 5300 men; it is the capital of the territory of the lama styled Bantshan or Bogdo-lama. Near it, to the west, is the magnificent convent of *Jashi-loumbo* or *Teshoo-loomboo*, where this pontiff resides; and which is said to contain more than 3000 chambers or cells. It is adorned with numerous obelisks, covered with gold and silver, with statues of Buddha in gold, silver, and bronze, and is served by more than 3500 lamas. *Bhaldi* or *Baidi*, a small town near the lake Yamtso or Paltee, which contains a convent on an island, the residence of a female divinity called *Dordjepame*, or the holy mother of the sow. The Hindoos, and Nepaules, as well as the Thibetans, reverence her as an incarnation of the Hindoo goddess Bhavani. She never quits her dwelling, nor leaves the island, but when she goes to Lassa, in great pomp. During the journey censers are carried before her, and she sits upon a throne covered with a large umbrella; everybody runs to receive her blessing, which she bestows by making them kiss her seal. The convents in the islands of this lake, inhabited by monks and priests, are under her direction. The western part of Thibet bears the Chinese name of *Chan-than* (Snow country), but is known to the Bhootas as *Hium-des*, and to the Thibetans as *Nari*; including the provinces of *Garo*, *Rodokh*, *Gardokh*, *Sumziel*, and *Tholing*, the two last of which are immediately contiguous to Piti in Ladakh, and to the British dependencies of Bissaher and Kunawar. Tholing, the chief town is situated on the left bank of the Suttle, and is a place of considerable note; it is said to contain 108 temples, with a number of gelums attached to each. Chan-than is the chief resort of the shawl-wool goat, and is also pastured by numerous flocks of sheep, whose wool is an article of trade. It likewise produces gold in considerable quantity; but the searching for it is discouraged by local superstition as well as by the Chinese authorities. *Gardokh*, called also *Gartokh*, *Ghertope*, or *Garo*, is little else than an encampment, consisting of a number of small blanket tents, with a few houses of unbaked bricks; it is in fact merely a trading station, or mart, where, in the summer months the natural productions of Thibet and China are exchanged for those of India.—(*Moorcroft's and Trebeck's Travels*, vol. 1. part 2, chap. 5.) To the south-east of Gartope are situated the two celebrated lakes *Manasarowara* and *Rawan-rhad*; the former of which is an oval basin about 15 miles by 11, nearly 17,000 feet above the level of the sea, surrounded by tremendous rocks, above which rise the loftiest summits of the Himalayas. The waters are clear and well tasted; but it is yet uncertain whether or not they have an outlet. Once to behold the Manasarowara is considered by the Hindoos as a felicity beyond every other on earth; but the great and almost insurmountable difficulties of the journey prevent all but a select few from accomplishing the pilgrimage. It was visited by Mr. Moorcroft in 1812. The Rawan-rhad, which he only saw at a distance, was said to be four times the size of the other, and to enclose some lofty mountains in the form of an island; but his distant observation did not confirm these statements. It emits its waters by the Suttlej.

Loochoo (*Doo-choo*, *Lekayo*, *Low-kow*, *Lieou-kieou*, *Lieu-kieu*, *Lieu-chew*) is an insular kingdom, in the Pacific Ocean, to the eastward of Formosa; the principal island lies between $26^{\circ} 4'$ and $26^{\circ} 53'$ N. lat., and $127^{\circ} 34'$ and $128^{\circ} 18'$ E. long., being nearly 60 miles in length by 10 or 12 in breadth. The climate is very temperate; and such is the excellence of the soil and climate, that vegetable productions, of different natures, and generally found in distant regions, grow here side by side. Not only the orange and the lime, but the Indian banyan tree and the Norwegian fir, the tea-plant, and the sugar-cane, all flourish together. The island abounds in rice, wheat, peas, melons, pine-apples, ginger, pepper, camphor, dye-woods, firewood, tobacco, silk, wax, and salt; and the sea yields coral and pearls. The animals are bees, sheep, horses, deer, and winged game, goats, pigs, and poultry. The people are of small stature, with a good deal of the Korean physiognomy, but with nothing of the drowsy and elongated eye of the Chinese. They are a polite and cultivated race. Their language differs both from the Chinese and Japanese, though it has many words common to both. Their books of religion, morality, and science are written in the Chinese character; but, for common purposes, the Japanese letters are used. They seem to have made no progress in science and literature; all their acquisitions have been derived from China. Their religion seems also to be of the same nature as the Chinese, but the priests are considered an inferior caste. Their government is monarchical. The only town with which Europeans are yet acquainted is the great seaport of *Napa-kiang*, on the south-west coast, about five miles from the capital, *Kien-ching*. The group contains altogether 36 islands, all of which are small; and the only one deserving particular notice is *Sulphur Island*, 80 miles N. of the Great Loo-choo, which contains a sulphuric volcano, that constantly emits white smoke. The *Madjicosima Islands*, the principal of which is *Typpisan*, and situate midway between Loo-choo and Formosa, are also subject to the king of Loo-choo, who is himself tributary to China.

LADAKH

Is a portion of the mountainous region situate between the Himalayas on the south, and the range of Kara-korum on the north, extending about 250 miles from E. to W. and 200 from N. to S. but with an irregular outline, and comprising altogether a superficial area of only 30,000 square miles. It is bounded on the north-east by the mountains of Kara-korum, which divide it from the Chinese province of Khoten; on the east and south-east by Rodokh and Chan-than, dependencies of Lassa; on the south by the British subject territory of Bissaher, and by the hill states of Kulu and Chamba; Balti, Kartakshe, and Khasalum complete the boundary on the west and north-west. The country consists of a series of narrow valleys, which are sometimes little better than deep ravines or defiles; and even at their greatest expanse, do not exceed a few hundred yards in width at the bottom. They are all situate at the great elevation of from 11,000 to 13,000 feet above the level of the sea, and the mountains which form them rise several thousand feet higher. The passes which lead into Ladakh on its southern frontier exceed 16,000 feet, and there are several mountains within the country of still greater height. The general character of the surface is extreme inequality, consisting of steep and bare mountains capped with snow, and close rocky dells, with rapid torrents or deep rivers rushing through them. There is accordingly little room for the labours of agriculture; and the proportion of available ground does not probably exceed one-fifth of the country; and the soil being formed by the disintegration of primitive rocks, is such as to be only rendered productive by human industry and skill. The general aspect of the country, where not under cultivation, is one of extreme sterility, in which a few willows and poplars are the only trees, and the chief verdure consists of Tartaric forze, with a few tufts of wormwood, hyssop, dogrose, and other plants of the desert and the rock, which expose rather than conceal the barrenness of the soil. Nor is the climate more auspicious to the labours of the husbandman. Frost, snow, and sleet commence early in September, and continue with little intermission till May. In May the days become warm, though even then the rivulets present a coat of ice early in the morning; which may be observed in some spots even in June, while on the loftiest mountains snow falls occasionally in every month. During summer the sun shines with great power,

and for a short time of the day its rays are intensely hot. Even in the depth of winter the sun's heat is very considerable for an hour or two, and the variation of temperature is consequently extreme. The great heat of summer compensates the shortness of its duration, and brings the crops to rapid maturity. The air is generally dry, the moisture being converted into snow in winter, and speedily evaporated in summer; there is consequently very little rain. The harvests however are not unproductive; and they present also the peculiarity of yielding equally abundant crops year after year from the same land, without fallows or rotation of produce. The water is in general clear and pure; but is often discoloured by earth, and impregnated with soda and alum. In general it is unwholesome to strangers, and at some seasons even to the natives. The species of grain cultivated are wheat, barley, and buckwheat, of various kinds. The natural sward is composed of a starveling low grass and dwarf sow thistle; in bogs the surface is covered with a short rush and bent grass, with some varieties of crowfoot and dwarf equisetum. The islands and banks of the rivers are in some places naked, in others fringed or concealed by a kind of thorn. In some places natural springs keep the surface perpetually wet during summer, and are then surrounded by beds of low rush and aquatic grass, affording wholesome pasturage. Lucerne, both wild and cultivated, grows in some places with great luxuriance, and is gathered as winter fodder for the cattle. A species of sainfoin also grows wild in some places; but the most valuable source of fodder is the *prangas*, an umbelliferous plant, which grows only in the western districts of the country. The head of the plant, including leaves, flowers, stems, and seeds, is converted into hay for the goats, sheep, and cows. Horses also will thrive on it; but it is only as hay that it is an acceptable food; whilst growing, no animal will browse upon its leaves, though they will eat its flowers. There is no great variety of culinary vegetables; but onions, carrots, turnips, and cabbages are reared in some places in spring and summer; carraway, mustard, and tobacco are grown in a few gardens. The only fruits cultivated are apricots and apples; rhubarb is produced in great abundance. The domestic animals are horses, asses, yaks, beeves, the zho or yak-mule, sheep, goats, and dogs. The horses are small, but active and hardy; but they are not numerous, nor much used. The sheep are larger than those of India. The common breed of goat is the shawl-wool species; the fleece is cut once a-year; the wool picked out is sent to Cashmere, but the hair is made into ropes, coarse sacks, and blankets, for home consumption. The dogs are large, with a shaggy coat of a dark colour, and are in general fierce, but intelligent. The wild animals are not numerous; they are mostly of the goat kind, are much larger than the domesticated species, and yield a finer wool. The ibex frequents the loftiest and most inaccessible rocks; the wild sheep is also met with; and in the eastern parts of the country a sort of wild horse or ass. Large mice, hares, squirrels, foxes, ounces, bears, lynxes, leopards, and marmots abound; and in the mountains a species of tiger. The birds consist of a large, fierce, and powerful raven, another large ravenous bird called chakor, sparrows, linnets, redbreasts, skylarks, snowlarks, and water birds of various kinds. Fish abound in all the streams, but are not used for food. There are mines of sulphur in some places; soda is found in great plenty along the banks of the Sinh-kha-bab, and in the district of Nobra; lead, iron, and copper are also found; but want of fuel and want of industry prevent them being wrought. The rivers are all affluents of the Indus (see *anté*, p. 682). In the eastern part of the country are two large lakes, which have no outlets, but are kept at their level by evaporation. The lake of *Pangkung* is about three miles broad, but of unknown length, though not less than 50 miles; the water is extremely salt, and contains apparently no fish. The other lake, named *Tsumereri* by Mr. Trebeck, and *Chuinonenil* by Mr. Gerard, is situate among steep mountains which rise abruptly from the water; it is about 14 miles in length, and 2 in breadth, and 15,000 feet above the level of the sea. The water is brackish, and seems to contain no fish. In the middle of May Mr. Trebeck found this lake sufficiently frozen to bear the weight of a man across it.

The people of Ladakh are of the Thibetan stock; but a considerable number of Cashmirians have settled at Leh, and have produced a mixed race called *Argands*. The whole population may amount to 150,000 or 180,000. There is not much wealth in the country, but what there is is equally diffused, and the great body of the people are in easy and comfortable circumstances, owing chiefly to the valuable fleeces of their goats. They pay no taxes in money, but are bound to give suit and service, both domestic and military, and to furnish contributions in kind for the support of the Rajah and the provincial governors. The severity of the climate renders warm clothing indispensable, and woollen clothes are therefore worn by all classes. The people are in general mild and timid, frank, honest, and moral, but indolent, dirty, and addicted to intoxication. Their religion is nominally Buddhism, but is a strange mixture of metaphysics, mysticism, fortune-telling, juggling, and idolatry. The doctrine of the metempsychosis is curiously blended with tenets and precepts very similar to those of Christianity, and with the worship of grotesque divinities. The country is infested with idle lamas and gylongs, who live on the industry of the people. The government is a simple despotism; but it is so curiously modified by the circumstances of the people, and the influence of the priests, that the Rajah, unless he is a person of uncommon talent and energy, is possessed of little real power, and may even be deposed, his successor being always a member of his own family. The business of government is administered by the khalun or prime minister, assisted by the nuna-khalun or deputy, the lom-pa or governor of Leh, the chug-zut or treasurer, and the banka or master of the horse. The districts and towns are governed also by inferior khaluns or tan-zins, or rajahs; and the business of the magistracy is discharged by officers called nar-pas, and by the head men of the villages. There is no permanent military force; the peasants giving their service as soldiers when required. The Rajah is nominally independent, but pays a tribute, disguised under the name of a present, to the authorities of Gardokh, on behalf of the government of Lassa. The country is divided into the principal pergunnahs or districts of *Ladakh*, in the centre; *Nobra*, on the north; *Zanskar*, on the south, and *Spiti* or *Piti*, on the south-east. *Lé* or *Leh*, the capital of Ladakh, situate at the foot of some hills, stands in a narrow valley, about two miles from the banks of the Sinh-kha-bab, from which it is separated by a sandy plain. It is inclosed by a wall, with projecting towers; but the streets are disposed without order, and the town forms a confused assemblage of houses. These are partly of stone and partly of brick, generally of two or three storeys; some are loftier, and their total number is estimated at 1000, though Mr. Moorcroft thinks 500 nearer the truth. The palace of the Rajah is a large and lofty building, forming a conspicuous object to a person viewing the city from without. The whole town, at a distance has much the appearance of a cluster of cards.—(*Moorcroft's and Trebeck's Travels*, vol. I. Lond. 1841.)

CHITRAL, GILGIT, KAFFIRISTAN, and LITTLE THIBET, are situate to the westward of Ladakh, and occupy the remainder of the elevated mountainous region which extends from the Himalayas on the south to the Hindoo-Koh, Belur-tagh, and Tsung-ling or Kara-korum mountains on the north. They are exact counterparts of Ladakh, and the same description will equally apply to all; their valleys are all drained by the affluents of the Indus. The inhabitants of Chitral, Gilgit, and Little Thibet are Shiah Mahometans; and their princes boast of their descent from the celebrated Secunder Zool-kurneenah (Alexander the Great.) Chitral is subject to Kunduz; Gilgit is a strong country and independent; but very little is known about either of them. *Iskardo* or *Skardo*, the capital of Balti, in Little Thibet, is a large fortified town of irregular construction, on the left bank of the Indus, nearly due north of Cashmere, and 140 miles N.W. by W. of Leh. The chief of Iskardo boasts that his capital was built in the days of Alexander. *Kaffiristan* is the most westerly portion of this region, and situate immediately to the north of the Kohistan, or hill country of Cabul. It contains many

elevated table-lands, on which there are always villages. The winter is severe, but in summer grapes ripen in great abundance. It is the abode of a singular people, called by their Moslem neighbours the Siabposh Kafirs, or Black-vested Infidels, from their wearing black goatskin dresses; they are entirely confined to the mountains, and are persecuted by all the surrounding nations, who make them slaves. They appear to be a rude uncivilized race, with very little religion; and, possessing a country strongly fortified by nature, they wage interminable war with the Moslems, and have repaid on them with tenfold vengeance the injuries which they have themselves suffered. Yet at times they are peaceable, and allow their country to be visited by commercial traders, and even make short periodical truces with some of their immediate neighbours. Gold is found among their mountains, and formed into vessels and ornaments; and various circumstances, taken in connection with their personal appearance and fair complexion, in which they differ from other Asiatics, have given rise to an opinion that they are of Grecian descent; probably the remains of settlers from Alexander's army, or of those who formed the Grecian kingdom of Bactria, and were driven by the fanatic followers of Mahomet into the wilds which they now occupy. They possess great agility and activity.

TURKESTAN.

This country is situate between 36° and 51° N. lat., and 45° and 78° E. long. From east to west, between the sources of the Syrdaria and the Caspian Sea, it extends about 1350 miles; and in breadth, from the northern frontier of Persia to the frontier of Russia, including the steppes of the Kirghiz, about 1260. It is bounded on the north by the Russian provinces of Orenburg and Tobolsk; on the south by Afghanistan and Khorassan; on the east by the mountains of Pamer, part of the Belur-tagh, which divide it from Chinese Turkestan; and on the west by the Caspian Sea and the river Ural. The greater part of the country is composed of sandy plains, intersected by a few rivers, and studded with small lakes, the banks of which, with the grounds within reach of irrigation by their waters, are the only cultivated parts of the country. It rises gradually from the shores of the Caspian and the Aral towards the south and the east, on both of which sides it is inclosed by high mountains, which give rise to its principal rivers. The south-eastern region is a hilly country, formed by the diverging ranges of the Hindoo-koh; and the eastern is formed, in like manner, by the divergent and subordinate ranges of the Belur-tagh. The great plain at the foot of the mountains has an elevation of about 2000 feet; but it gradually declines westward to the Caspian, where it is as low as the level of the ocean. From the Sir northward to the Moughojar hills, through a space of more than 270 miles, not a single river crosses the desert, which, however, contains a number of shallow saltwater lakes, and has exactly the appearance of land from which the sea has retired. These lakes are in some places dried up, and have left a cake of salt, of dazzling whiteness, covering an area sometimes of 6 or 7 square miles. Immediately along the east side of the Aral are the two great deserts of *Karakoom* and *Kizil-koom*, or the Black and the Red Wastes; the former of which is in some parts 175 miles broad, extending from the north-east corner of that sea to the mouth of the Sir, and the other from the Sir to the Amoo, forming an ocean of sand, without a drop of fresh water, and covered with moveable hillocks, which rise between 12 and 60 feet above its surface. To the north of the Aral is a wild hilly region, thinly inhabited by nomadic tribes; and the highest part of the country in that direction is occupied by the Moughojar hills, which are a continuation of one of the groups into which the Urals are divided at their southern extremity; the same red sandstone which composes the Urals at Orenburg extending into the steppes. In the northern and westerly part of the region there are extensive hills; but, towards the south and the east, this hilly region gradually sinks into plains composed of clay, marl, and calcareous tufa, covered with loose sand which is blown by every storm of wind into hillocks, and forming altogether a depressed tract of immense extent, interspersed with innumerable lakes and morasses, the general direction of which, from the shores of the Aral north-eastward, favours the opinion that the whole region was at no remote period under water. These deserts, however, are partially interrupted by two ranges of low hills, called the *Great* and the *Little Bourzouk*, the latter of which terminates in a promontory at the north-eastern corner of the Aral, while the other extends considerably to the westward. North-eastward, again, from the Little Bourzouk are some hills of hardened marl, full of marine shells, a formation which extends to the shores of the lake, of which these hills appear to have recently been the shore, though they are now 40 miles distant from it. Between the Caspian Sea and the Aral the country is occupied by an elevated region called the *Ust-urt* or High Plain, which extends north and south from the 41° to the 47° N. lat., or about 400 miles. It is bordered all round by a small chain of calcareous hills, called the *Chink*, which forms the western and north-western shores of the Aral, and touches the Caspian at the Mertvoi-Kultuck or Dead Gull, where it forms also the shore of the *Touk-kara-sa*, a deep indentation of that gulf. When approached either from the north or from the south, the Chink presents a precipitous face or cliff, in which the openings are so few, so narrow, and so difficult, that it may almost be considered inaccessible; it is so steep towards both seas that it rises at once 639 feet above them. The *Ust-urt* rises in some places to 727 feet above the Caspian, and its lowest elevation is 550 feet above the same level. On its north-eastern side it is connected with the Moughojar hills, and thus forms a complete bar to any communication between the two seas. The climate of the *Ust-urt* is perceptibly more unequal and severe than that of the low country; on which account it is considered advisable to make the circuit of the sea of Aral, rather than pass between the seas, in travelling between Khiva and the Russian frontier. The *Ust-urt* does not possess a single river; the bushes and herbage which grow upon it are fit only for camels, but not for horses, and still less for sheep. Springs are rare, and the water is far below the surface. In the middle there are some salines and sandy tracts. The general sterility and the violent winds and storms to which the *Ust-urt* is exposed, render it quite uninhabitable; and no Kirghiz are ever known to encamp there in winter. It presents the same appearance to the eye as the lower steppes; both consisting of sandy clayey ground, sand, and salt-tits, and containing the same vegetation, with the exception of a bushy plant called *baialysh*, which is not met with in the lower steppes. Near the *Ust-urt*, at different distances, are distributed hills of unequal elevation, but extending in the same direction as the Chink; and to the south of the Emba there is a chain of hills, or rather a small plateau, called *Jildi-tagh*; all of which appear to have been formerly connected with the *Ust-urt*, and to have been afterwards separated from it by the action of the waters which covered the lower plains, at a time when the *Ust-urt* formed a large peninsula, connected with the northern mainland by the Great and the Little Bourzouk, which may even be considered as its north-eastern prolongation.

The steppes of the Kirghiz have not every where a uniform surface, nor do they constitute a vast plain, as the name might be thought to imply; they are, on the contrary, intersected by many chains of hills, and no where exhibit those boundless expanses which are met with elsewhere. The surface is for the most part unequal, and covered with small round-topped hills; but, as these hills are neither high nor clothed with trees, the name of *steppe* is sufficiently applicable to the country. There is also a great want of water, which causes an excessive dryness, an inconvenience which may be attributed to the rarity of rain, the extreme summer heat, the clayey soil, and the winds which pass over it. The verdure is consequently poor, and the general appearance is unvaried and fatiguing to the eye. It may, however, be divided into several regions of various degrees of fertility. The most fertile and least

sandy part is the northern region, between the 51° and 55° N. lat.; the meadows there are rich in pasturage and in every kind of flowers; there are forests which produce timber fit for building, as well as fire-wood; many plains of a strong soil, fit for agricultural purposes; lakes abounding in fish; and rivers of fine, palatable, and wholesome water. The second region, bounded on the north and west by the river Ural, and to the south and east by lines extending from the Moughojar mountains to the fortress of Orsk and fort Boudariunsky, consists of a clay soil, watered by a great number of rivers, and consequently abounding in herbage; it contains also several places fit for cultivation, but, with the exception of some bushes and trees on the banks of the river Ilek, no wood appears anywhere. Notwithstanding its distance from the sea, it contains many shells, pebbles of divers colours, petrifications, mollusks, and other marine remains. The third region extends to the south of the second, terminating at the Caspian sea on the south-west, at the Ust-urt on the south-east, and at the Steppe of Mouss-bil, between the Moughojar hills and the Ust-urt, on the east. It is evidently less fertile than the second region, contains large spaces of sand, vast marshes, and lakes of water unfit for drinking. The small streams which water it are almost all saltish, even to bitterness, and become dry in summer. It affords in summer ample food for camels, but it is only in autumn that the herbage becomes fit for horses, after the cold has modified its dryness; watering places are rare; and cultivable ground is only to be found in the north, along the water courses, and even there in small quantity; the southern part, almost entirely occupied by salt lakes and marshes, and beds of reeds, is completely sterile. The fourth region is the Ust-urt already described; the remainder of the country, extending to the east and the south, is generally sterile; but towards the north-east, being watered by streams from the northern hills, it becomes more fertile and pleasant, and contains many valleys fit for cultivation. The most southerly region presents scarcely anything but general sterility, as in the sandy wastes of the Great and the Little Bourzouk, the Kara-koom, the Kizil-koom, the Arch-Koundouk-koom, the desert Biptak, the lake Balkash, the reed-beds which surround it, and the almost unknown steppes which are traversed by the rivers Choui and Talash. Several places, however, in the northern and western regions are remarkable for their fertility.—(*Description des Hordes et des Steppes des Kirghiz-Kazaks, ou Kirghiz-Koussaks, par Alexis de Ledzine. French edition, Paris, 1840.*)

RIVERS.—The **JIHOON** or **AMOO*** (ancient **OXUS**) has its source in the **Siri-kol**, a lake in Khunduz, N. lat. $37^{\circ} 27'$, E. long. $73^{\circ} 40'$, 15,600 feet above the level of the sea, and encircled with mountains, except on the west side, where the river finds a channel. After leaving the mountains, it passes through the sandy plains in a north-westerly direction, fertilizing a narrow tract of about a mile in breadth on each side, till it reaches the territories of Khiva, where it is divided into a great number of branches, and forms at last a swampy delta, overgrown with reeds and aquatic plants, and terminating in the sea of Aral. Its channel throughout is remarkably straight and free from rocks, rapids, and whirlpools, nor is it much obstructed by sandbanks; and were it not for the marshes which obstruct its mouth, it might be navigated from the Aral to near Khunduz, a distance of 600 miles. Being the only drain of an extensive hill country, it pours down a great body of water, and is never fordable below the junction of the Ak-Surai, 40 miles N.W. of Khunduz. The melting of the snow causes a periodical swell in May, which continues till October and the river is also subject to a second but smaller flood during the rains of spring. It fluctuates also in its rise and fall with the state of the weather; in the upper part of its course it is frozen every year, so that, above Khunduz, passengers and beasts of burden cross it on the ice, on their route to Yarkhand. Below Khiva it freezes yearly, and throughout the desert it is also frozen over in severe winters. Its advantages, however, both in a commercial and in a political point of view, are very great. According to tradition, a branch of the Amoo, if not the whole stream, once flowed westward to the Caspian Sea; and the deserted bed of the river can still be traced in that direction, terminating in the Gulf of Balkan; but when the change took place, and whether suddenly or gradually, is uncertain. Its principal affluents are the *Soorkh-ab*, or river of Karategin; *Koksak*, or river of Badakhshan; *Kaferruh*, or river of Hisar; the *Tupalak*, and the *Zurhab*, on the right bank; the Ak-Surai, *Bunghee*, *Surkhab*, or river of Goree; the *Khoo-koom*, and *Adirsiah* or *Dehas*, on the left.

The **SIR-DARIA** or **SIHOON**, called, in the upper part of its course, **NARYN**, rises among the Teenshan or Sky Mountains, to the south of the south-west corner of Temourtoou or Issek, in the country of the Highland Kirghiz, who are subjects of China. The Naryn has considerable affluents. About 250 miles above its mouth in the Sea of Aral, a branch called *Kouvan* separates from the main stream of the river, and is afterwards subdivided into five branches, which again unite, and a little lower down form a great number of lakes of different sizes. According to Meyendorf, the Sir is rejoined near its mouth by the Kouvan through a little brook. It washes Khojend, Tounkat, and Otrar, passes a little to the north of Khokand, and some miles to the west of Tashkend. It is much smaller than the Amoo, but is said to be more rapid. In summer it is fordable; and in winter it is covered with ice, sometimes two yards thick, over which the caravans pass.

Next in importance to the Sir is the *Kohik* or *Zarafshan* or *Zerafshan*, which rises in the high lands east of Samarcand, and passing north of that city and Bokhara forms a lake (Kara-kool, Black Lake), in which it terminates, not far from the right bank of the Amoo. In the upper part of its course it waters the rich province of Samarcand; below that city its waters are diverted, for the purpose of rice cultivation; for three or four months of the year its bed is perfectly dry at Bokhara; and in consequence that city and the country below it suffer great inconvenience, as they depend on the river for a supply of water. The lake into which it flows is familiarly called *Denghis* or the *Sea*, and is about 25 miles long, and surrounded by sand hills. It is very deep, and does not appear ever to decrease in size at any season. When the snow melts in summer, the water flows as steadily into it as it does in winter; its water is salt. The river of *Khurshee* rises in the same high lands as the Kohik, and passes through Shuhr-Subz and Kurshee, below which it is lost in the desert. The fields of Shuhr-Subz yield rich crops of rice; and Kurshee is a sheet of gardens and orchards. For six miles on the one side and sixteen on the other, the waters of the river are distributed by canals; and where these cease there is again a barren desert to contrast with the beautiful herbage of the watered district. The river of *Balkh*, already mentioned as a branch of the Amoo, rises south of the Hindoo-koh, about 20 miles from Bamean, near the *Bund-i-Burbar*, a celebrated dam, ascribed to a miracle of Ali, but more probably a mass of earth that has fallen in upon a ravine. The river then flows north among the mountains, and enters the plains of Turkestan, about six miles south of Balkh, where it is divided into innumerable channels which intersect the whole country, and so completely absorb the waters that none of them reach the Amoo. The *Sara-sou* flows through the country of the Kirghiz of the great horde into Lake *Teles-kool*. The *Choui* or *Shoui*, which comes from Soungaria, out of Lake Issi-koul, flows through the Kirghiz country of the middle and the great hordes into the lake *Kabun-Koulak* or *Bei-le-Koul*. The *Emba* rises from the western flank of the Moughojar hills and flows in a south-westerly direction into the north-eastern corner of the Caspian sea. The *Ukhiak* and *Ulu-Jighis* flow from the eastern flanks of the Moughojar hills in a south-easterly direction into the Salt Lake or marsh *Ak-sakal-barbi*. The *Noura* rises from the hills to the north-west of Lake Balkash, and flows north-westerly into the lake *Khurkaljine*.

* *Jihoon* means a flood, and is the name used in all the Turkish and Persian works which treat of these countries; but the people on its banks now speak of the river under the name of *Amoo*, calling it *Durya-i-Amoo*, the river, or literally the sea of Amoo.—(*Burnes' Travels*, II. 186.)

LAKES.—The lake commonly called the SEA of ARAL, is situate in the western part of Turkistan, between $43^{\circ} 35'$ and $46^{\circ} 48'$ N. lat., and 52° and 68° E. long. It is very nearly of a square form, but with a considerable extension to the north-east, and measures from south-west to north-east 370 versts, or 245 English miles; its greatest breadth, along the 45° parallel, is about 190 versts, or 124 English miles; and it contains a superficial area of about 21,000 square miles. The Arabian and Persian geographers called it the lake of Khwarizm, Kharasm, and Urgunge; but the Kirghiz-Kazaks and their neighbours call it Aral-denghis or Sea of Islands. In the Russian annals it is called *Cinoo* or Blue Lake. The water is not so salt as that of other seas, and even near the mouths of the Amoo and the Sir, at some distance from the shore, it is almost fresh; the eastern and southern shores are low, for the most part sandy, but in some places covered with reeds. The western and northern shores are high and precipitous, being formed by the Chink or border of the Ust-urt. In the eastern, or rather south-eastern part, are a multitude of small islands named Barqa-Kaitmass, and, to the northward of the middle, is a large island named Barqa-Kilmass, covered with wood. The lake freezes in winter, and from the mouth of the Sir to the town of Kourgrat it is passed on the ice. The fish are of the same species as those of the Caspian. Many of the Kirghiz allege that in the middle of the lake there is a whirlpool, which no vessel dare approach. Its surface, as ascertained barometrically in 1826, is 18 toises, or 115 feet higher than that of the Caspian.—(*Lerchine*, 47.) The depth is not great, and there are so many sand-banks near the shores that the fishermen are obliged to use flat-bottomed boats. Its waters are said to be rapidly diminishing.

In the steppes of the Kirghiz there are a great many lakes, which differ in their properties as well as in extent. Some are fresh, some bitter, but the most of them are salt. The principal of them are: the *Balkashinoor*, about 130 miles in length from north to south, bordered on the west and south by sands, and on the north-east by very extensive beds of reeds. It receives the river Ili (Eele) from the Tarbagatai; the Alaguz from the north-east, and a number of smaller streams. The *Issyk*, *Issek*, or *Touz* (Warm or Salt Lake), called by the Mongols *Temourtou*, and by the Chinese *Le-Gai*, among the hills to the south of the Balkash, is about 100 miles in length by 34 in breadth. The water is almost fresh, and abounds with fish; its outlet is the river Choui. To the north-east of the Balkash are two lakes, the *Sacyk* or *Aluk-tou-koul*, and the *Alu-koul*, only divided by an isthmus composed of salish substances, which seems to be of recent formation. None of the other lakes are of the least importance.—(*Lerchine*, 47, &c.)

CLIMATE, AND NATURAL PRODUCTIONS.—The climate of the plains and the steppes of Turkistan is subject to extremes of heat and cold; the sandy surface of the country producing an intense heat in summer, while, on the contrary, in winter the same deserts are sometimes covered with snow, and are always very cold during the night. In the steppes of the Kirghiz the extremes are remarkable; the thermometer often falls below 30° of Reaumur, or 36° of Fahrenheit below zero; and, even at the mouth of the Sir, 45° N. lat., it falls to 20° or -13° of Fahrenheit. In such a temperature the rivers, mountains, and plains of the steppes, are necessarily covered with snow, which is very deep, and lies long. At the mouth of the Sir snow does not always fall in winter, but almost every year the lower part of the river, and the northern part of the Aral, are coated with ice. Nor is the extreme cold the only evil; severe storms, hurricanes, and whirlwinds, blow over the steppes, carrying every thing which is moveable before them. These colds are succeeded in summer by excessive heat, which is nearly insupportable by either man or beast. In the region adjoining the river Ural the temperature sometimes rises to 50° Reaumur, or 145° Fahrenheit, in the sun, and to 34° (109° Fahrenheit) in the shade. The hand cannot then be applied to iron, and the sand is so hot as to roast eggs. The climate, however, is generally healthy. Rain is very rare in the steppes; the ground is consequently very dry, and, in summer, breaks into cracks or crevices. In general the seasons in this country may be represented as follows:—spring, sudden and fleeting; summer, dry and burning; autumn, rainy, gloomy, and short; winter, long, dry, and constantly cold.—(*Lerchine*, Part I. ch. 2.)

Among the mammiferous animals in the steppes the rodentia are the most numerous; wolves inhabit caverns of the gypsum mountains, and the sandy districts; the canis corsac roams among herds of the antelope saiga. Horses are the most valuable domestic animals in almost all the grassy steppes of Persia, Turkistan, and Siberia. Among these the beautiful race of Argamats supply the cavalry of Khiva. Camels, of both species, and sheep, frequently of a good breed for wool, and some of them fat-tailed, beeves, and goats, constitute the wealth of the wandering tribes. Fine wool goats are bred in Bokhara. The tiger has been found in the vicinity of the Aral, on the banks of the Sir and the Kouvan. The wild bear is found in great numbers in the vicinity of all the rivers; the mouse in the Kirghiz steppes; and the dog geese, so called from their burrowing in the ground. The falcu chrysatos builds its nest in the Kirghiz steppes. But, generally speaking, the natural productions peculiar to the country are comparatively few in number, and of little consequence.—(*Zimmerman's Memoir on the countries about the Caspian and Aral*, &c. London, 1840.)

PEOPLE.—The most numerous race who occupy the low country are the *Usbecks*, who distinguish themselves by 32 tribes, into which they are said to have been divided in their pastoral seats, before they conquered this country. The first tribe crossed the Sir about the beginning of the 16th century, and possessed themselves of Bokhara, Khari-m, and Khokand. They are also to be found beyond the Belur-tagh, as far east as Khoten, and probably further. They are of the Turke or Turkish race, and are generally short and stout made, with broad flat foreheads, high cheek-bones, thin beards, small eyes, clear and ruddy complexions, and generally black hair. Their dress consists of a shirt and trowsers of cotton, with a coat of silk or woollen cloth, which is bound with a girdle; and above this a gown of woollen cloth, pasteen, or felt. The head is covered with a white turban, worn in general over a kalpak. Both men and women wear boots, and bandages round their legs instead of stockings; and every man has a knife suspended from his girdle, with a flint and steel for striking fire. The women have a dress similar to that of the men, but longer, with a silk handkerchief tied over the head, and the hair plaited into a long tail, which hangs down from the middle of the head in the fashion of the Chinese. They wear gold and silver ornaments, and over all throw a sheet of silk or of cotton. The aborigines of the country are the *Taujiks* or *Tats*, sometimes, but erroneously, called *Sart*, which is merely a nickname given them by the nomadic tribes. The *Taujiks* are devoted to commerce; their language is Persian, which has long been that of the country; and it is most probable that they are themselves of Persian or Arabian origin, descended from the first Moslem conquerors. There is besides a great number of Persians in Turkistan; and many Jews, Hindus, Armenians, and Russian slaves. The northern parts of the country, towards the Russian frontier, are occupied by nomadic races formed by an intermixture of *Kalmucks*, *Kazaks*, and *Kirghiz*. The *Kalmucks* and the *Esbecks* are said to have sprung from one tribe; and the *Kirghiz* and the *Kazaks* appear to be much the same people, differing only in location. The *Kazaks* pass the summer in the southern parts of Russia; but repair in winter to the neighbourhood of Bokhara, where they sell their sheep. The *Kirghiz* occupy the wide plains or steppes which extend along the southern frontier of Siberia to the east of the Aral, and the north of the Sir. They are divided into three branches or hordes, called the Great, the Middle, and the Little horde. The great horde ranges to the east and south on the borders of Cashgar and Khokand, and many of its tribes have adopted the habits of these more improved districts, and acquired a peaceable character, with fixed dwellings; those of them, however, which occupy the higher parts of the hilly regions still merit the name of the wild *Kirghizes*. The

middle and the little horde occupy the shores of the Aral, extending also towards the Caspian, and retain the nomadic pastoral character in its ancient purity. They own the supremacy of Russia, which pensions their chiefs; and for greater security against their inroads a line of strong posts is kept up between the Ural and the Irtysh. The Usbecks and Tadjiks of Bokhara, Khiva, Balkh, and Kokand, are Soonee Mahometans, very strict in their profession, and even fanatical. Several tribes on the eastern borders are Shiahs, and some are idolaters. There are also Jews and Hin'zoos, who profess, of course, their paternal faith.

Among the numerous states of Turkestan the government is more or less despotic; but each nation or body politic is generally composed of an aggregation of clans or *urûghs*, of which the chief are in many instances elected by the people. The chief administers the internal affairs of the clan, and arranges the quota of tribute, and military service exacted by the general government. But these heads of clans do not unite in any assembly, nor claim the right of exercising any control over the measures of the sovereign.

It may be stated, in general, that in all the great towns the people are industrious; most of them being devoted to agriculture. But the Bokharians are distinguished above all their neighbours for their manufacturing industry, and for the fine cotton and silk stuffs, hats, paper, and other articles which they produce. Bokhara has always been a great mart for the trade of central Asia; and for the last 80 or 90 years it has been visited annually by caravans from the southern provinces of Russia; till within these 20 years the trade in European fabrics was principally confined to the Russians, who brought them from Orenburg and Troitskai; but is now carried on more extensively through India and Cabul. The late attempts of the Russians to open a direct communication with Bokhara have been frustrated by the chief of Khiva, who took offence at measures which threatened to turn the traffic from his own territories; but numerous fairs are now held annually on the southern frontiers of the empire, the chief of which is at Nishnei-Novgorod, on the Volga, which commences in August, and lasts 40 days. It is at this market that the merchants who carry on the trade of central Asia make the most part of their sales and purchases; and even Hindoos are found among the traders. The imports from Russia consist of white cloths, muslins, chintzes, broad-cloth, both of English and Russian manufacture, of imitation brocade (kincoh), velvet, with nankeen and gold thread, all of home manufacture; also furs, cochineal (kermis), locks, iron-pots, iron, brass, and copper; wires, leather, paper, needles, cutlery, and jewellery, hardware, refined white sugar, honey, and a variety of other small articles. The annual caravan which arrives at Bokhara consists of about 1300 camels, and leaves Russia in January. The imports from India by way of Cabul, are indigo, cotton, sugar, white cloths of all kinds, calicoes, and muslins; chintzes of European manufacture, shawls, brocades, muslins, spices, &c.; and Captain Burnes was informed that three-fourths of the articles which are imported from both countries are of British manufacture: many of which can be transported through Russia at less expense, even as far as the borders of India, than through India itself. Besides the Russian and British trade, Bokhara carries on an extensive and direct commercial intercourse with the Chinese garrison-towns of Cashgar and Yarkhand, importing china-ware, musk, and bullion, but chiefly *tea*, of which beverage the people of Turkestan are extravagantly fond. With Persia their trade is inconsiderable, owing to the unsettled state of the roads, which are infested by wandering Turcoman robbers, and the hatred which subsists between the two people, who differ in their religious tenets. The shawls of Kerman form the principal article of import. Opium has also found its way from Persia into Bokhara, and is again exported to Yarkhand and Cashgar, where the same demand exists for it as on the sea-coast of China. The exports of Bokhara are far from inconsiderable, since it possesses silk, cotton, and wool. The silk is chiefly produced on the banks of the Amoo, where the mulberry thrives luxuriantly; and nearly all the Turcomans are engaged in rearing silkworms in summer. It is exported in considerable quantities to Cabul, and even finds its way to India. The silk is manufactured at Bokhara into a stuff called *udrus*, of a mottled colour, red, white, green, and yellow, which is the fashionable and most expensive kind of dress in Turkestan, and is not exported. There are likewise extensive cotton manufactures; their cotton thread is much in demand, and is exported in considerable quantities to Russia, while much of the raw material is sent to Balkh, Khooloom, and Kunduz. The wool of Turkestan is sent across the mountains to Cabul, and the Punjab, where it is made into a coarse kind of shawl. It is procured from the Kazaks and wandering tribes about Bokhara, who were long ignorant of its value, and still use it for the common ropes for their horses and cattle. The lambskins of Bokhara are celebrated in the East: they are procured only in Karakool, and are exported to Persia, Turkey, and China; but chiefly to the first country. The Persian merchants purchase them for ready money, being afraid to risk a commercial investment across the desert. It is not possible to negotiate a bill between Meshid and Bokhara.

DIVISIONS.—Turkestan has never been all subjected to the same sovereign. It may be considered as divided naturally into, 1. *The Steppes of the Kirghiz*, which occupy the northern part; 2. *Maver-ul-nahar*, i. e. between the rivers Amoo and Sir, the *Transoxiana* of the Latin geographers; 3. *The hill countries* along the southern and the eastern borders. It is divided politically into a great number of states, which differ greatly in extent and amount of population; but the dominant, or at least preponderating native powers are the Khanats of Bokhara, Khiva, and Khokand or Ferghanah. The following are the principal states or Khanats:—

BOKHARA, which is the richest, most populous, and most powerful, is an isolated kingdom of small extent in the midst of a desert. It is an open campaign country of unequal fertility. In the vicinity of its few rivers the soil is rich; but beyond them, it is barren and unproductive. It lies chiefly to the north of the Amoo; but towards the south-east, it crosses the river and holds a supremacy over Balkh, and the Khanats of Andkho and Maimuna. On the banks of the Amoo, the Kohik, and the river of Kurshee lies the whole cultivable soil of the kingdom. Its length along the Amoo is 240 miles. From Balkh to Bokhara the distance is 260 miles of nearly an entire waste; the desert commences about 15 miles beyond the capital. The strip of cultivable ground on the banks of the Amoo is narrow, and much of it lies neglected; the most fertile part of the kingdom is the valley of the Kohik, the ancient *Sogdiana*, which is considered a paradise by the Arabs. Another small portion is watered and fertilized by the river of Kurshee; while Balkh and other places south of the Amoo owe their fertility to the waters which descend from the mountains. The climate of Bokhara is salubrious and pleasant; being dry, and in winter very cold, as is usual in sandy countries. There is constant serenity in the atmosphere, and the sky is of a bright azure blue, generally without a cloud. At night the stars have an unusual lustre, and the milky way shines conspicuously. Even in moonlight, stars are visible on the verge of the horizon, and there is also a never-ceasing display of the most brilliant meteors. In winter, the snow lies three or four months at Bokhara; and the spring rains are often heavy. In Balkh, the heat is oppressive; and the climate is very unhealthy. The harvest is about fifty days later than at Peshawer; the wheat is cut in the middle of June, and at Bokhara it is about a fortnight later. *Bokhara*, the capital, which stands in lat. 39° 43' N., long. 64° 55' E., about 1200 feet above the level of the sea, is a place of great antiquity, tradition assigning its foundation to the age of Alexander the Great. It lies embosomed among gardens and trees, and cannot be seen from a distance; the situation is delightful, and the climate salubrious. Its shape is triangular, exceeding eight miles in circumference. Surrounded by a wall of earth, about twenty feet high, and

pierced with twelve gates. Few great buildings are to be seen from the outside; but when the traveller passes the gates, he winds his way among lofty arched bazaars of brick, and finds each trade occupying its separate quarter. Everywhere he meets with ponderous and massy buildings, colleges, mosques, and lofty minarets. The city contains about 20 caravansaries and 100 ponds and wells, is intersected by canals shaded by mulberry trees; but is, nevertheless, indifferently supplied with water, the river being six miles distant, and the canal opened only once in fifteen days. In summer the people are often deprived of water for several months. It contains several large mosques, and not less than 366 madresses or colleges, a third part of which are large buildings which contain upwards of seventy or eighty students. Many, however, have but twenty, and some only ten. The students are supported by a public allowance, and are entirely occupied with theology, which has here superseded all other subjects. They are quite ignorant even of the history of their country; and a more perfect set of drones, says Burnes, were never assembled together. Population, 150,000. *Samarcand*, the *Maricanda* of the Greeks, 120 miles E. of Bokhara, is as ancient as the time of Alexander. It was the capital of Timour, and the princes of his family passed their winters there. It has now declined from its grandeur to a provincial town of 8000, or at most 10,000, inhabitants; gardens and fields occupy the place of its streets and mosques; but it is still regarded with high veneration by the people. Some, however, of its buildings still remain to attest its former glory. Three of its colleges are perfect, and one of them, which formed the observatory of Ulugh Beg, is particularly handsome. The tombs of Timour and his family still remain; and the ashes of the conqueror rest beneath a lofty dome, the walls of which are beautifully ornamented with agate. *Kurshee* is a straggling town of a mile in length, with a considerable bazaar, and about 10,000 inhabitants, 140 miles S.E. of Bokhara. To the N.E. of Kurshee, about 50 miles, is *Shuhr-Subz* (the *Shehri-Subz* of Arrowsmith, and *Cher-Selz* of Balbi), the birth-place of Timour, and the seat of a klan. *Balkh*, lat. 36° 48' N., long. 67° 18' E., 260 miles S.S.E. of Bokhara, is one of the most ancient cities in the world, and is called by the Persians *Am-ool-belud*, mother of cities. It is supposed to have been the ancient *Bactra*, said to have been built by Kyamoor, or Cyrus, the founder of the Persian monarchy; and was in later times the capital of a Grecian kingdom, which was founded by the successors of Alexander. It was also the birth-place of Zoroaster, and the seat of the patriarch, primate, or archbishop of the Magian hierarchy. Its present population does not amount to 2000. The ruins extend for a circuit of twenty miles, but present no signs of magnificence; they consist of fallen mosques, and decayed tombs, which have been built of sun-dried bricks; nor are any of these ruins of an age prior to Mahometanism. The city stands in a plain about six miles from the hills, and affords an abundant supply of bricks to the inhabitants of the surrounding country. A stone of white marble is still shown in the citadel, which is said to have been the throne of Kyamoor. These are the only towns in the country; there are some large villages, but none which contain more than 2500 inhabitants. The villages are also few, and widely separated from each other; they amount to about 400, and the whole population of the kingdom is estimated by Burnes not to exceed 1,000,000, one half of which are nomadic tribes. The villages are fortified with mud walls; and in the cultivated parts of the country, single habitations, called *robats*, are scattered here and there, and invariably surrounded by walls.

KHUNDUZ, or **KOONDooz** occupies a valley to the south of the Amoo, lying among low hills which extend about 30 miles from east to west, and about 40 from north to south; the climate is most insubtrious, the heat is excessive, and yet the snow lies for three months during winter. It produces rice, wheat, and barley, apricots, plums, cherries, and mulberries. The town, of the same name, cannot boast of a population of more than 1500. The neighbouring districts do not partake of this unhealthiness, but have in general a pleasant climate, and a rich and prolific soil. **BUDUKHSAN** or **BADAKHSAN**, called also **FYZABAD**, is situate to the east of Kunduz, to whose meer or chief it is now subject. It lies higher up the Amoo, and is celebrated by both natives and foreigners for its vales, its rivulets, romantic scenes and glens, fruits, flowers, and nightingales. This celebrated country is now almost without inhabitants; it was lately overrun by the chief of Kunduz; its ruler was dethroned, the peasantry driven out of the country, and a rabble of lawless soldiery quartered in its provinces. The natives are *Taujiks*, very fond of society, and so hospitable that it is said bread is never sold in the country. Their language is Persian, which they speak with the broad pronunciation of a native of Iran. Budukhsan has acquired great celebrity for its ruby mines, which are still worked, but are not very productive. There are also mines of lapis lazuli near the head of the valley of the *Koktcha* river, about 120 miles E. by S. of Kunduz. Of its capital, *Fyzabad*, once so celebrated throughout the East, scarcely a vestige is left, except the withered trees which once ornamented its gardens.

To the north of Kunduz and Budukhsan, and beyond the Amoo, are the small hill states of *Hisar Koolab*, *Durwaz*, *Shoognan*, and *Wukhan*; the whole of which are mountainous. Hisar is finely watered, and is a rice country, independent of Bokhara and Kunduz; and its capital, of the same name, stands on a rising ground, 260 miles E.S.E. of Bokhara. The whole population of these states is Mahometan.

Between Budukhsan and Yarkhand or Iarkhend, in the Chinese territory, lies the high plain of *Pamir* or *Pamer*, inhabited by the Kirghiz. In the centre of the table-land is the lake *Siri-kol*, from which the Amoo flows. The plain extends all round the lake for six days' journey; and all the mountains are described as being reflected in its waters. Pamir is a flat tract, intersected by shallow ravines, and covered with short, but rich pasture. The climate is very cold, and in summer the snow remains in the hollows. The *Taujiks* call it *Bani-dunia*, roof of the world. It is about 15,600 feet above the level of the sea, bordered and intersected by mountains 2000 to 3000 feet higher. This elevated tract is common to India, China, and Turkestan; and from it, as a central point, their principal rivers flow; it is also the centre from which their mountains radiate. From Pamir the ground sinks in every direction, except to the south-east, where similar plateaus extend along the northern face of the Himalayas into Tibet. — (*Wood's Journey to the source of the Oxus*. Lond. 1811.) The inhabitants are nomadic Kirghiz, who cover their whole bodies, even their hands and faces, with sheepskins, to protect them from the severity of the cold. There is no grain in the country, and the people live entirely on flesh and milk. They do not even know the use of flour; and when it is given them they mix it with their soup, but never bake it into bread. Captain Burnes heard of an animal called *rass* by the Kirghiz, and *kooshgar* by the low country people, which was said to be peculiar to Pamir. It is larger than a cow, but smaller than a horse, of a white colour, with hair hanging under its chin, and its head is crowned with very large horns; which are indeed said to be so large that a man cannot lift a pair of them; and when left on the ground, the small foxes bring forth their young in the inside of them! The flesh of this wonderful animal is much prized by the Kirghiz, who kill it with arrows. A common-sized *rass* requires two horses to carry home its carcase; it is said to delight in the coldest climate. The two-humped camel is also indigenous to Pamir, and the *yuk* enjoys the snows of all the neighbouring mountains.

KHOKAND, **KOKAN**, or **FERGHANAH**, the country of the celebrated Sultan Baber, the founder of the Mogul empire in India, lies north-east of Bokhara, from which it appears to be separated by the *Aktagh*, or *Asferah* mountains. It occupies the upper valleys of the *Sir* and its affluents, and is a much smaller territory than Bokhara. It is ruled by an Usbeek klan, who claims to be of the same lineage with Baber, but his power is on the decline. The country is celebrated for its silk; and its other produce

is much the same as that of Bokhara. The capital is *Kokan*, an open town on the Sir, about half the size of Bokhara; the ancient capital is *Marghilan*, still a large and fine city, some miles to the south-east of Kokan. *Indejan*, on the Sir, is likewise a town of considerable note; and the Chinese of Yarkand call all the people who visit them from the westward Indejanees. *Tashkend*, an ancient and flourishing city 86 miles N.N.W. of Kokan, is described by the Siberian merchants who visit it, as a large town of 80,000 inhabitants. Unaccustomed as they are to extremes of climate, these travellers complain vehemently of the oppressive heat of Tashkend. Its whole wealth consists in the produce of the soil; yet that soil would soon be annexed to the desert, were it not for the industry of the inhabitants. Every vegetable substance grown in Tashkend, the mulberry-trees to feed the silk-worms, the fruit-trees, even the trees reared for fuel, are, with the humbler vegetables, all planted in gardens, watered by canals from the little river Cherkhik, which flows at 12 miles distance. The staple article of produce is cotton, in the manufacture of which more than half the population are employed; but, owing to the rudeness of their processes, the Russians, notwithstanding the long land carriage, can supply them with manufactured goods at a cheaper rate than they can make them. *Turkestan*, a town of 1000 mud houses, defended by a fort, and ditch 15 feet deep. *Och*, at the foot of the Tukht-i-Suleiman mountain, is a town frequented by numerous pilgrims, who come to pay their devotions at a small square building on the top of the mountain. Tradition states that Solomon sacrificed a camel on this spot, where the blood is still shewn on a stone which is quite red. It is, however, much frequented by people suffering from rheumatism and other acute diseases, who are said to be cured by stretching themselves on a flat stone near the building. *Khajend*, on the bank of the Sir, is a fortress surrounded with fields and gardens, like Bokhara. The Kokanese wear skull-caps instead of turbans. The khan keeps up an intercourse with Russia and Constantinople; but there is no friendly feeling towards the rulers of Yarkhand.

The Khanat of *Khiva* (sometimes spelled *CHIVA*) and more generally called *ORGUNJE* by its inhabitants, lies about 200 miles W.N.W. of Bokhara. It is a small but fertile territory, occupying the delta of the Amoo, and surrounded by deserts. The inhabited part is about 200 miles from north to south, and about half as much from east to west; it claims the dominion of the deserts which border the Caspian, has of late years established its supremacy over the Turcoman hordes south of the Amoo, and holds Merve, which lies on the high road between Khorassan and Bokhara. It is the ancient Kharism or Charism, and is mentioned by Arrian under the name of the country of the Chorasmi. It contains only two places of note, *New Orgunje* and *Khiva*; the former of which is the commercial capital, the latter the residence of the khan. *New Orgunje* (*Urghendj* or *Ourghendj*) stands on a canal derived from the Amoo, about six miles from the river, and has a population of about 12,000. It is distant from Bokhara about 300 miles W.N.W. *Khiva* is a modern town, about half the size, situate also on a canal, about 60 miles S.W. of New Orgunje; and is the greatest slave market of Turkestan. The country of the *Kara-kalpaks*, lying along the Sir, whose inhabitants are nomadic in summer, and stationary in winter, is subject to Khiva, but contains no place of any importance. The people of Khiva carry on the slave trade to a great extent; they make forays into Persia, and seize the subjects of Russia on the Caspian; they supply Bokhara and the whole of Turkestan with slaves, and are said to possess about 2000 Russian slaves. But while the Khivans are thus robbing in every direction, they grant protections to caravans on payment of fixed duties. The Russian cabinet has long attempted, but without success, to form a connexion with Khiva, not only for commercial purposes, but for the suppression of the practice of enslaving its subjects. There is great hostility to Russia in the minds of the Khivans, and it would be most dangerous to appear in the character of a Russian in their country. The Russians recently attempted, in the winter of 1839-40, to march an army of 20,000 men to Khiva, through the Ust-urt; but, after losing all their camels and many men, through the extreme severity of the cold, the wreck of the armament was obliged to return to Orenburg; and, instead of repeating the attempt, the Russian government has been content to enter into a treaty, one condition of which is, that the Khivans shall no more enslave Russian subjects.

Turkmania is the country lying south of the Amoo, or Turkestan Proper, stretching from Balkh to the Caspian, and occupying the space between that sea and the Aral. On the south it is bounded by hills, which are a continuation of the Hindoo-koh, and the Paropamisian Mountains. On the south-eastern shore of the Caspian, where Turkmania adjoins Persia, the country is mountainous, and watered by the rivers *Gurgan* and *Attrak*, which fall into that sea. In all other places it is a flat and sandy desert, scantily supplied with water. The streams which flow from the mountains are speedily absorbed by the sand, and never reach the Amoo. The largest of these is the *Murghab* or river of Merve, and the *Tejend*, which passes Shurukhs. The country contains no towns or villages, for the Turcomans are an erratic tribe, who wander from one well to another with their herds and flocks, taking their conical khirgahs or huts along with them. The desert is a vast ocean of sand, flat in some places, and rising in others into mounds, which, in the neighbourhood of the Caspian, reach the height of 60 or 80 feet. There is little difficulty in crossing them, and the wells, though few and distant, offer their supply of water at no great depth from the surface, seldom more than 40 feet. The Turcomans boast that they rest under the shade of neither king nor tree. They acknowledge the patriarchal sway of their Aksakals (Whitebeards) or elders, and now and then, in some places, fall under the power of the neighbouring nations. The life of a Turcoman is passed in the most reckless plunder of property and human beings; and a proverb among them boasts that a Turcoman on horseback knows neither father nor mother. They have fortunately no supreme ruler to guide or direct their united efforts, a circumstance which lessens their power and the effects of their barbarity. They belong to the great family of the Turkee or Tartar race, and differ from the Usbecks in being exclusively a nomadic people. They all claim a common lineage, though they are divided into different tribes, to some of which they concede a greater degree of honour than to others. Their total number is reckoned at about 140,000 families. They have neither science nor literature; they are even without mosques, though not altogether without religion; they are a warlike people, and their domestic habits fit them for battle. Their food is simple, consisting of the milk and the flesh of their herds and flocks. They bestow great care on their horses, which attain a noble perfection in this country, and in the countries north of the Hindoo-koh. The climate is favourable to the constitution of the animal, and the people exhibit the most patient solicitude in its breeding and food; so that its best qualities are fully developed. The Turcoman horse is, however, a large and bony animal, more remarkable for strength and power than for symmetry and beauty.

In the midst of Turkmania, between Bokhara and Persia, lies the once fertile land of *Merve*, the capital of which is said to have been built by Alexander. It is yet styled *Merve* or *Merû-shah-i-jehan*, king of the world. It long continued a dependency of the Persian empire, and rose to be a great and opulent country, producing a hundred fold, while its wheat fields furnished three successive crops from the same seed. Such was its condition, when it was conquered in 1787 by Shah Mîrad of Bokhara, who destroyed its castle and canals, and forcibly marched the greater part of its people to Bokhara, where they still form a separate community. At a later period the remnant of the population was driven into Persia; and this beautiful district, which once presented so striking a contrast to the rest of the country, now partakes of the general sterility, while the Turcomans have usurped the place of its once fixed population. The fields on the verge of the *Murghab* alone are cultivated, and here the Turcomans still rear the finest wheat, juwaree, and excellent melons.

RUSSIAN ASIA.

The Russian empire in Asia comprehends several countries and provinces of vast extent, which may be arranged in two distinct portions, the *Caucasian Provinces*, and *Siberia*.

§ 1. *Caucasian Provinces.*

Though the Caucasus has been assumed by modern geographers as the boundary between Europe and Asia, yet, since the countries on both sides of the range form one natural region, and are included in one political government, we have found it necessary, in this particular, to pass the limits of Asia, and intrude on those of Europe. The country we are about to describe has a very irregular outline, and forms a sort of isthmus between the Black Sea and the Caspian. Its northern boundaries are the rivers Kouma, Manytsh, and Kougol-Ieia; the western the Sea of Azov, the Strait of Yenikaleh, and the Black Sea; the southern, Turkish Armenia, the river Aras, and Persian Azerbaijan; the eastern, the Caspian Sea; comprising an area of more than 200,000 English square miles. The principal feature of the country is the celebrated mountain chain of Caucasus, which extends across it from near Anapa on the Black Sea to the peninsula of Abcheron on the Caspian, a distance of more than 700 miles, with a breadth varying from about 60 miles to about 120. The highest part of the chain lies to the east of Mount Elbûrz, 43° E., and contains numerous summits which rise above the snow-line (see *anté*, p. 628, 629, and 633); but, in the peninsula of Abcheron, the chain sinks down to the appearance of moderate hills. The culminating point is usually named by European naturalists Elbûrz or Elhorus; that, however, is not the distinctive name of any of the summits, but is only the common Circassian appellation of all snow-capt mountains. The proper Circassian name of that lofty peak is *Osha-makhua* (mountain of happiness); the Abbassians call it *Orfeif-Gubb* (heavenly mountain, or mountain of the Great Spirit); and the Tartars, *Idlis-Thagtar* (mountain of stars). All the neighbouring tribes consider it as the residence of the Chin-Padishah, or emperor of the Jins — (*Spencer's Western Caucasus*, l. 111.) Westward from Elbûrz the chain extends to the north-west, parallel to the shores of the Black Sea, at a distance of 20 or 30 miles, presenting in its eastern portion a series of granitic and porphyritic summits, flanked by shapeless masses of black schist, over which rises a wall of jurassic limestone, to the height of 7000 or 8000 feet (French), cleft by deep ravines, through which the collected waters flow. Advancing from Colchis it is still separated from the sea by a uniform plain 7 or 8 leagues wide, which runs along its base for a space of 30 leagues, becoming gradually narrower, as far as the height of Gagra, where the jurassic wall approaches the sea with its full elevation, leaving only a pass nearly as narrow as the Grecian Thermopylae, which is a sandy flat, in some parts only fifty feet wide. Farther west the summits decline in elevation, and change their geological character; the black schists and the jurassic limestone are gradually concealed beneath the waves of the Black Sea, or under vast beds of a chalk formation, which here terminates the Caucasus. There are no longer peaks white with snow; but, in their stead, low, round, wooded hills are found ranging along a deep sea coast, cut into a multitude of narrow lateral valleys, which are watered by unavigable streams. The sea itself is bordered by a long series of white or grey shelving rocks, which are lashed by its waves. — (*M. Dubois; Bulletin de la Société de Géographie, Paris, Avril 1837*, p. 240.) The Western Caucasus is named by the Circassians *Kuschkkaa*, and by the Russians *Churnigori* (black mountains), from their being densely covered with forests; and to distinguish them from the lofty snow-capt range, of which Elbûrz forms the principal peak. Towards the banks of the Kouban the mountain valleys open into a plain, a considerable part of which is covered with forests, while the acclivities, glens, plains, and river banks are embellished with cypresses of the growth of centuries, palm-trees, plantains, maples, elms, firs, alders, and poplars. The right or northern bank of the Kouban presents a very different scene, and contains a tract as wild, desolate, and woodless, as the mind can conceive. The soil of the mountain valleys is rich and well-watered, and wants only human industry to render it highly productive. At present, however, a great portion of it is overgrown with wild herbs, and is used only for pasturage. The same description, indeed, will apply, with little variation, to the country farther east, along the whole range of the mountains. To the north of the Kouban and the Terek extends a wide plain, containing scarcely any elevation which deserves the name of hill; and the watershed of the country between the two seas rises probably no higher in its northern part than 120 feet above the level of the Black Sea. The western part of this plain is intersected by ravines, in which flow small streams; it contains not a single tree, but is covered with excellent grass, interspersed with beautiful flowers. The eastern portion, from the Terek to the Volga, is a saline, sandy, and barren steppe, occupied by a few wandering Tartars, and exhibits every appearance of having formerly been a part of the bed of the Caspian Sea. Along the Caspian, southward from the mouth of the Terek to the point of Abcheron, lies the *Daghestan* (hill country), which consists of a numerous succession of hills and valleys, formed by the offsets of the Caucasus. Its south-western border is the main range itself; but the northern part of its western border consists of a long offset, which divides the bed of the river Koïsou, which flows north, from the smaller streams that flow directly east to the Caspian.

The southern slopes of the Central and Eastern Caucasus subside into two great valleys or river basins; the one, extending 330 miles north-west from the Caspian sea, with a mean breadth of about 75 miles, is drained by the river Kûr and its numerous affluents; the other extending only about 120 miles from the watershed, westward to the Black Sea, is drained by the river Rioni and its affluents. The mountains of Karalini, which form the watershed between these great valleys, are of comparatively small elevation, and rise only to 6000 feet; but, as the range extends westward, along the southern side of the basin of the Rioni, towards the mouth of the Choruk, under the name of the mountains of Akhaltsike, the summits reach in some places an elevation of 10,000 feet. The southern side of the basin of the Kûr is formed by a high mountainous country, which contains in its bosom the great lake Gûkcha or Sivan; and one of the summits, Ali-Ghuz, rises to the height of 12,000 feet. To the south of these mountains we find the long narrow valley of the river Aras, which forms, throughout the greater part of its course, the boundary between the Russian and the Persian territories. Towards the mouth of the river the boundary line diverges from it, crossing the desert of Mogan or Mogan, and extending southwards along a ridge of heights, which form the watershed of the small streams that flow to the Caspian, and ending on the shore near Astarah or Fort St. Nikolaïa, 60 miles S. from the mouth of the Kûr.

The Caucasus forms an immense wall between the northern and the southern portions of the country. There are, however, several passes across the range, the most celebrated of which are the *Pass of Dariel*, in 45° E. long., believed to be the Caucasian pass of the ancients; and the *Albanian Pass* of antiquity, which is generally supposed to be the road that now goes along the shores of the Caspian Sea, by Der bent and Bakâ, though Malte Brun affirms it to be that which now proceeds along the

banks of the Kolsou, crossing the mountains to the eastward of Mounts Tersh and Kara-kia, in 46° 20' E. long. From the fortress of Vladikaukas, on the Terek, the Pass of Dariel extends southward along the banks of that river, reaching the height of 8000 feet, from which it again descends to the fort of Passanaour, erected for the protection of travellers, and thence proceeds along the valley of the Aragbor river to Teflis. Between Passanaour and the fort of Kasibeg, on the northern side of the summit, the mountains rise several thousand feet above the pass, and in some places the road runs along the edge of an abyss, which seems to be as deep as the mountains above it are high; while the difficulties of the traveller are often increased by the fall of avalanches, or the sudden swelling of the mountain torrents. The other passes are comparatively unimportant; that by Derbent is little frequented, for, though it does not pass over mountains, it is everywhere interrupted by numerous torrents which often overflow their banks, and render travelling dangerous. The rivers are few, and comparatively unimportant. The *Kouban* (ancient Greek *Hypanis*, Latin *Hypanis*), rises in a valley between Mount Elbûrz and the main chain of the Caucasus, and flows first north-west, and then west to the Black Sea, which it enters a little to the east of the Strait of Yenikaleh. It receives all the waters that pour down from the northern valleys of the Caucasus, between Mount Elbûrz and the Black Sea; the length of its course is about 480 miles. The *Terek* rises from the foot of Mount Kazbek, flows first north through the lower northern part of the pass of Dariel, then north-west till it join the Malka, where the united stream turns nearly due east, and enters the Caspian Sea by a number of mouths. It receives all the waters between Elbûrz and the valley of the Kolsou, and has a course of more than 300 miles. The *Kouma* rises from the northern side of Elbûrz, flows first northerly, and then east towards the Caspian, which it formerly reached after a course of 320 miles; but it is now absorbed by the sands before it reach the sea, its empty channel being still visible for about 100 versts. The *Mangysh* has its origin in a number of small lakes or marshes to the north of the Kouma, flows north-west, forms the large lake *Bolchoilmen*, and falls into the Don near Tscherkask, in the country of the Don Cossacks. The *Kûr* (*Kuros* of the Greek, and *Cyrus* of the Latin geographers) rises in the Turkish eyalet of Kars to the north-west of the city of the same name. It flows first in a north-easterly direction, till it reaches the slopes of Caucasus, which turn it to the south-east, a course which it continues till it enters the Caspian. Its course is 550 miles. The *Aras* (*Araxes* of the Greeks and Latins), a larger river than the Kûr, rises from the Bingeldagh, 35 miles S. of Erzurum, and flows easterly, south-easterly, and then north-east, into the Kûr. These two rivers receive considerable affluents from both sides of their respective valleys, and, in the lower part of their courses, form or communicate with a long string of lakes and swamps, which appear to have formed, at one time, a part of their bed. The *Rioni* (*Phasis*) rises to the south-east of Elbûrz, and flows to the Black Sea, collecting the waters of the southern slopes of Caucasus between the 42d and the 44th meridians. Its principal affluent is the *Ziroula*, from the eastern part of the valley.

This region, except the portion to the north of the Kouban, which is part of the Government of Taurida, forms one general government of the Russian empire; the governor-general of which has his residence at Teflis, the capital of Georgia. It includes several ancient kingdoms, states, and provinces, whose names and people have acquired historical celebrity; and these it is necessary to consider as still the proper geographical divisions of the country, though the arrangements of the Russian Government may be different. The ancient divisions are, 1. *Georgia*. 2. *Shirwan*, *Shirvan* or *Guirvan*. 3. The Russian portions of *Armenia* and *Azerbaijan*. 4. *Ineritia*, *Mingrelia*, and part of *Gûriel*. 5. *Abassia*. 6. *Circassia*. 7. *Daghestan* and *Lezhistan*. 8. The old Russian province of *Caucasia*, comprehending the country between the Kouma on the north, and the Upper Kouban and the Terek on the south and west.

1. *GEORGIA* (the Persian *Gurgistan*, the Russian *Grusia*, and the Turkish *Gurtshi*) though formerly of greater extent, may now be considered as comprising the north-western or upper portion of the basin of the Kûr, and is about 240 miles in length, by 120 in breadth. The Kûr flows nearly through the middle of it, carrying all its surplus waters to the Caspian. The country presents an agreeable variety of mountains, forests, and plains, enjoys a very mild temperature, and is in general very healthy. The people cultivate wheat and millet; peaches, apricots, almonds, quinces, cherries, figs, and pomegranates, flourish with very little care. The vines are abundant, and of good quality; but the wine is not well made. Apples, madder, and cotton are also cultivated. The people boast of their management of bees; their horses and bees equal the best European breeds in size and beauty; and their long-tailed sheep afford excellent wool. The finest oaks and firs are suffered to rot without being applied to any use. The Georgians speak a language radically different from every other known tongue; but they believe themselves to be descended from the same stock with the Armenians. They are generally handsome, well made, and active; and possess good natural abilities, but are selfish, and addicted to drinking. The beauty of their women is not less celebrated than that of the Circassians, though their skins are not so white, nor their figure so graceful; and many of them are, or used to be exported to Persia and Turkey, for the supply of the harems. Many of the Georgians live in huts half concealed in the ground; but in the more civilized parts of the country are found houses formed of a slight wooden frame, walls made of bundles of osiers, covered with a mixture of clay and cow dung, and surmounted by a roof of rushes. In almost all the villages there are towers, built to serve as asylums for the women and children against the attacks of the Lezhis. About two-thirds of the people are proper Georgians, attached to the ritual of the Greek Church; Armenians and Jews are also numerous. Georgia was formerly a feudal monarchy, subdivided among princes and nobles, the former of whom paid no contributions, but were obliged during war to follow the king with their vassals. Their lawsuits were also decided by the king. The nobles paid certain taxes to both the king and the princes; and although they dwelt in thatched cottages, their pride was equal to their poverty and their ignorance. Under these rulers the people lived in the most abject slavery; they were sold, given away, or pledged, like domestic animals. All who were capable of bearing arms were soldiers; each noble commanded his own vassals, but the king named the commander-in-chief. The king's revenues consisted of the fifth part of the produce of the vineyards, fields, and gardens; with duties on all exports and imports, as well as the produce of the mines, which were but slightly worked. Georgia being protected by mountains, escaped the great Tartar devastations; but for the last three centuries, it has been the scene of almost continual warfare; and, though now under the regular government of Russia, it has experienced so little improvement that its public revenues are not sufficient to defray the necessary expenses.

Teflis, *Tiflis*, or *Tibilisi*, the capital, stands nearly in the centre of the country, on the right bank of the Kûr. It was destroyed in 1796 by Aga Mahommed Khan, the King of Persia, but has been gradually rebuilt, with considerable taste; the remaining portions of the old town are ill built, and contain narrow and irregular streets. The houses of the richer classes alone have glass windows; the poorer people are content with oiled paper. In the new town, however, there are wide streets, fine squares, large barracks, well-managed hospitals, vast caravansaries, and large and fine buildings for the accommodation of the governor and his assistants and deputies. Among the older buildings the cathedral is remarkable for its antiquity, its extent, and its architecture; and the ancient citadel, which is built on a high rock, presents an imposing mass of ruins. Teflis is the residence of the governor-general of Caucasus, and of a Georgian and an Armenian archbishop; it possesses a gymnasium, a seminary, several schools, and a botanic garden; it has also four newspapers, which are published in the languages of Russia, Georgia, Persia, and Armenia respectively. There are also cele-

brated warm baths, for which water is collected from springs in the neighbouring hills, and is said to possess considerable medicinal virtue. The inhabitants are somewhat industrious, and carry on a considerable trade; but their number, even including the large Russian garrison, does not amount to 30,000. Lat. $41^{\circ} 41' N.$, long. $44^{\circ} 50' E.$ The other principal towns are *Doucheti*, 27 miles N. by W. from Teflis; *Gori*, 45 miles N.W.; *Ganja* or *Elizavetpol*, 90 miles S.E.; *Telavi*, 35 N.E. by E.; *Signakh*, 56 miles E. by S.; *Akhaltseke* or *Akiska*, 110 miles W. of Teflis, which was formerly the capital of a Turkish pashalic, and contained 40,000 inhabitants, but now contains only about 13,000, mostly Armenian emigrants from Turkey, who have not yet fairly established themselves. It contains several fine churches, and ruins. At *Hertvis* or *Khartous*, 50 versts (33 miles) S.E. of Akhaltske, where the Trapovanie and the Kür form a junction, the country is completely volcanic. For a distance of five miles to the Kür, every rock is composed of a series of volcanic blocks, with layers of solid lava, from 20 to 100 feet in height, resting upon them. The traveller next reaches a circular valley, five or six versts in diameter, through a narrow rent in which, 50 or 60 feet deep, the river flows. In this quarter small balls of volcanic ashes are incessantly thrown up in every direction; which issue from the side of an oval lake from 400 to 600 feet in length, and of fathomless depth, situate in the midst of wild sterile blocks of lava; the surface of its water is 50 feet above the Kür, which runs close past it. Beyond this lake the Kür continues to flow among volcanic rocks; at the top of which, 1000 feet above the river, stands the large fortress of the Armenian Queen Thamar; and at the distance of four or five versts from the entrance of the crater, is her favourite place of residence *Warzieh*, a most extraordinary spot. It is a complete city, hewn out of volcanic stone; and contains, among other works, three large churches, entirely cut out of the rock, subterranean passages several versts in length, innumerable chambers, some of them finely sculptured, and Queen Thamar's summer and winter palaces.

2. SHIRVAN was formerly a province of Persia, but of very uncertain limits; its northern boundary was sometimes fixed at Bakû, and sometimes considered to extend as far as Derbent. In its restricted acceptance, it comprises the lower part of the basin of the Kür, between that river and the mountains; its climate and natural productions are very much the same as those of Georgia. It consists chiefly of a fertile well-watered plain, which produces plentifully cotton, rice, wine, and fruits of various kinds; but along the shore of the Caspian there is a flat tract which is nearly desert. The inhabitants are chiefly Mahometan Persians. The peninsula of Abcheron, though hilly, contains no summit exceeding 1000 feet. The soil is rocky and barren, and its only water is brackish, and is obtained from wells. There is not a tree in the peninsula; but portions of the territory have a layer of mould, on which wheat, barley, and maize, melons, and other fruit, rice and cotton, and, on the higher ground, saffron, are raised. The soil is saturated with naphtha, from which gas is profusely exhaled. It not only streams spontaneously through the surface but rises wherever a hole is bored. It is of two kinds, black and white, and its principal sources are about six miles from Bakû. The black oil shines with a reddish tint in the rays of the sun, and is used for burning, and for coating roofs. Not far from the same spot a stream of white oil gushes from the foot of a hill; it readily ignites, and burns on the surface of water; and in calm weather people amuse themselves with pouring it in quantities into the sea, where they set fire to it, and it floats away, giving the waters the appearance of a sea of fire. The poor people of the neighbourhood obtain a cheap light, and fire for cooking, by driving a clay pipe or a hollow reed into the ground, and burning the gas which rises through it. The Persian ghebers, likewise, send the gas in bottles to their friends at a distance. The burning field, near Bakû, is a hollow expanse, full of clefts coated with white sand and grey dust, and abounding with particles of sulphur. Some of the clefts are seen burning, some smoking, and others emitting only vapour. There is also, not far from the town, a boiling lake which is in constant motion, and emits a flame without heat. Occasionally the whole region seems to be on fire, as it rolls along the hills in enormous masses, and with incredible velocity; but this fire does not burn, and it is impossible to detect in it the smallest heat. In ancient times this burning field was one of the most celebrated ateshyahs or shrines of grace among the ghebers or fire-worshippers of Persia; a spot to which thousands of pilgrims resorted to purify themselves from sin. A few of them still find their way to it, and spend such a portion of time, five, seven, or ten years, as they think necessary to acquire for themselves the character of sanctity among their countrymen. Pilgrims come even from India to visit this sacred spot. The peninsula is likewise celebrated for numerous volcanoes which discharge immense quantities of mud.

Bakû, the capital, is situate at the south-west corner of the peninsula of Abcheron, where the sea is land-locked by two islands, which render the roadstead a safe anchorage, even close to the shore. The town is walled, and built on a declivity, the top of which is occupied by an old palace of the kings of Persia. The streets are narrow and winding, and the population amounts only to about 3500 or 4000. The exports consist of naphtha, saffron, cotton, silk, opium, rice, and salt. The district of the town contains 35 villages, with 19,000 inhabitants, of whom 1000 are Turcomans.

To the south of Shirvan, and divided from it by the Kür, the Russian territory includes a portion of the Persian province of Gililan, called *Talish*; but there are no towns, or other places, of the least importance.

3. The Russian portions of ARMENIA and AZERBAIJAN lie between Georgia on the north, and Mount Ararat with the river Aras on the south; being together about 200 miles in length from N.W. to S.E., and 130 in breadth. The country consists of a mass of mountains which form a congeries of volcanic amphitheatres, and here, as well as to the south of the Aras, crowding upon each other, fill up the whole space between the Black Sea and the Caspian. One of the largest of these amphitheatres is occupied by the most remarkable feature of Russian Armenia, the great freshwater lake *Gikcha* or *Kikcha* (properly *Gokcheh-derya*, the blue lake) called also *Siran* or *Seran*, the surface of which is 5300 feet above the level of the sea. Its greatest length, according to Colonel Monteith, who travelled round it, is 47 English miles, while its breadth varies from 6 to 21; but according to the late Russian trigonometrical survey, as reported by M. Dubois, its length is only 15 French leagues ($4\frac{1}{2}$ English miles), and its breadth 8 leagues ($2\frac{1}{2}$ miles). In the north-western portion of the lake is an island called *Seran*, with a monastery, 1200 yards from the shore. In his passage across this strait, Colonel Monteith lost soundings with 400 feet of line soon after pushing off, and the lake had the dark blue appearance of deep water. — (*Journal R. Geog. Soc. Lond.* III. 40.) A branch of the river Zengue, which passes Erivan, carries the surplus waters of the lake to the Aras. The lake is entirely surrounded by extinct volcanoes, and by jets of various trap rocks and porphyries which yield small streamlets of water during the spring months. Immediately to the north-west, but politically within the limits of Georgia, lies another great volcanic amphitheatre, that of *Somkhetti*, which has no lake, but contains immense beds of lava and obsidian. The western border of this region, and of the Russian territory, is formed by the *Arpa-Chai* (barley river), which, according to Colonel Monteith, invariably presents the same feature of flowing in the deep bed of a basaltic ravine, with numerous ruined castles, perched on abrupt rocks, till near its junction with the Aras; but according to Smith and Dwight (*Missionary Researches in Armenia*, &c. London, 1831, pp. 102, 269), it presents at the place where they crossed it, at Gümri, not the shadow of a barrier to the advance of an army. In their journey eastward they had entered a different empire almost before they were aware of it; as both banks of the river presented the same features of plain and gentle undulation, and the river itself was easily forded. Gümri, however, has since been fixed on as the site of a Russian fortress. Waving fields of barley on its eastern bank, interspersed with meadows, attracted their attention before they knew they had crossed the boundary. The beautifully limpid water, scattered widely in artificial

canals, gives extreme fertility to a broad tract of land, which is well peopled, and presents an animated scene of villages, some of which appear to be large. The north-eastern part of this region, occupying the angle formed by the Kûr and the Aras, above their confluence, is called *Karabagh* (black garden), from the extreme fertility of the black alluvial soil of the valley of the Kûr which it embraces. The rest of it is mountainous, and, in general, well wooded with a variety of forest trees; but in the heart of the mountains which form the walls, as we may call them, of the two river valleys, is an extensive table-land entirely destitute of timber. — (*Smith and Dwight*, 223-225.) Its waving surface, however, is arable, and cultivated with grain throughout in long narrow fields without fences; but, as there is no means of irrigating the soil artificially, the produce is scanty, varying from one to five fold, and four fold being the average crop. The table-land is intersected by numerous ravines of great depth, whose precipitous sides bristle with numerous slender cones, each capped with a rock occasionally several tons in weight (judging from their size), and forming the beds of streamlets of the purest water. The southern border of this table-land is formed by a high mountain ridge which sinks abruptly on the opposite side down to the Aras, which forms, as already mentioned, throughout the greater part of its course, the limit of Russian Armenia. Its valley is much narrower than that of the Kûr; and the low grounds along its banks are in many places swampy for miles in succession. The lower part of its course is through a succession of defiles; and below Ouradabad the stream forces its way through a great chain of mountains, where a road has been made which even now scarcely admits of a loaded mule passing on either bank. Basaltic and volcanic rocks form everywhere the prevalent mineralogical features of its channel; but in a valley four miles below its junction with the Arpa-chai, are situate the salt mines of *Kulpia*, which have for many ages supplied Georgia and even the Caucasus with that necessary article. The salt is so abundant that hitherto it has not been necessary to sink deep. A range of hills bordering the valley on the east side appears to be entirely composed of salt, in the sides of which numerous excavations have been made. The soil of the valleys of the Aras appears to be extremely fertile, but, except in the lowest plains, nothing is produced without continual irrigation; and wherever a canal cannot be made to reach, not only is there no crop cultivated, but even grass seems scarcely to grow, and unsightly saline weeds, covered with thorns, increase the appearance of general barrenness. If it be true, as some have imagined, that we are here to look for the site of Eden, certainly on no part of the earth is the primeval curse more palpably inflicted than on the original paradise. No where is it more true that man eats bread in the sweat of his brow, and nowhere are thorns and thistles more spontaneously produced. The mountains around, instead of being covered with trees, as in the Karabagh, or clothed with verdant pastures, as at Erzurum, present only forbidding precipices of rock or of earth, apparently without even a blade of grass. The whole scene of valley and mountain affords not a tree, except in the immediate vicinity of the villages. — (*Smith and Dwight*, 270.) Directly south of Erivan a small portion of the Russian territory extends to the south-westward of the Aras, and in the south-west corner of this portion stands the famous mountain *Macis* or *Agri-Dagh* or *Ararat*. Its peak rises to the height of 17,265 English feet (2700 toises, by Parrot's measurement); M. Dubois makes it 16,254 French feet; and the smaller peak he makes 12,162. Sixty miles N. by W. of Ararat the mountain *Ali-Ghuz* rises to the height of 12,000 French feet, capped with perpetual snow, and forms the northern termination of a superb garland, as M. Dubois calls it, of extinct volcanoes which enclose the basin of *Ararat* or central Armenia, over the whole circumference of which nothing is to be seen but black and grey lava currents, with pumice or obsidian, along with scoriae and basalt, or trass, intermixed with porphyries and melaphyres. In July 1860 Ararat and the neighbouring country were shattered by a tremendous earthquake.

Erivan, lat 40° 9' 30" N., long. 44° 33' E., the capital of the province of Russian Armenia, is situate in a rugged valley, on the east bank of the Zengue or Zenghi or Zengy river, the outlet of lake Gûkcha. It is a small city without walls, but has good houses, and contains about 1800 Moslem, and 700 Armenian families, or about 12,000 inhabitants. The citadel is at the distance of about a quarter of a mile to the south, and is almost a distinct town. Surrounded on the north by arid mountains, which concentrate the sun's rays, the climate of Erivan is extremely hot in summer, and proverbial for intermittent fevers and liver complaints. The soil, however, is extremely fertile, and Erivan is not less famous for its fruits than for its diseases. All the sunny hills which border the valley are covered with vines. Some places are so warm as to allow them to remain exposed to the air all the winter, but generally they are slightly covered with leaves or straw during that season. The melons and apples are also uncommonly fine. The trade of the place seems to be in a languishing condition; and the population is said to be declining since the Russian conquest. About 12 miles west from the city is the convent of *Etchmiadzin*, the ecclesiastical capital of the Armenians, and the residence of their catholics or spiritual primate. It is surrounded by a high wall, flanked with circular towers, which give it externally the appearance of a fortress; within, it is a city in miniature, containing an ancient church, rebuilt A.D. 618, and other buildings. *Nakhchevan* or *Nakhchivan*, 80 miles S.E. by E. from Erivan, claims the honour of being the oldest city in the world. Armenian etymology shows that the name signifies "first place of descent;" and tradition affirms that Noah fixed his residence here after descending from Ararat. The city was almost entirely ruined during the last war, and is not yet recovering. Around it are numerous gardens of extreme luxuriance, which produce abundance of quinces, pears, apples, melons, pomegranates, grapes, and almonds; but, like Erivan, Nakhchevan is as noted for its sickliness as for its fertility, though it is situated about two farsukhs, or 8 miles, from the Aras, on a higher level than the alluvial and marshy plain which borders the river. Twenty miles, in a straight line, farther down the Aras, and at the south end of a strong defile, is *Juffa*, an ancient city, destroyed by Shah Abbas the great, who carried its inhabitants to Ispahan, where the suburb which they occupied still bears the same name. About 20 miles north-west of Nakhchevan, is the supposed site of *Artaxata*, an ancient capital of Armenia, destroyed by the Roman general Corbulo, in the reign of Nero. *Valarsupat* or *Vagharshabad*, another ancient capital, now a village of about 500 mud cabins, stands close by the walls of Etchmiadzin. There are several other ruined cities in different parts of the province. *Shousha* or *Choucheh* (in Armenian *Shoushi*), the capital of Karabagh, 124 miles E. by S. of Erivan, is a mountain formed into a natural castle, surrounded by very deep precipitous ravines. The town contains about 2000 houses, built of stone, frequently two storeys high, and open to the street.

4. *IMERITIA*, *MINGRELIA*, and that part of *GURIEL* within the Russian territory, occupy the whole basin of the Rioni; the northern border being formed by the Caucasus, the eastern by the mountains of Kartalini, the southern, by those of Akhaltsike, and the western, by the Black Sea. The mean length is above 120 miles from east to west, and the greatest breadth, at the 42° meridian, above 90. The soil is extremely fertile, but little cultivated, and the country is covered throughout with thick forests. Owing to this last circumstance, as is supposed, the climate is so humid that it rains from 120 to 150 days in the year. The lower part of the country, next the sea, is a dead unvaried flat, full of swamps and marshes, producing a constant miasma, the fertile source of pestilential fevers. The people are of the Georgian race, and amount only to about 150,000. Imeritia is directly under the Russian government, but Mingrelia and Gûriel still have their respective princes, who acknowledge the emperor's supremacy, but even their countries are filled with Cossack police stations; and the insecurity to person and property, so vividly described by Chardin, who passed through the

country in 1672, has given way to perfect quiet and security. Decided measures have been adopted, with success, to restrain the sale of slaves, and the condition of the peasantry has been greatly improved. Still, with the exception of a few merchants, the population is divided into only two classes, the nobility and the slaves, the former being the owners of the land, and the latter performing all the work. But as the noble can no longer deprive his serf of his life or limbs, nor sell him to a foreign master, slavery has assumed a somewhat milder form; and the master and slave live together on almost equal terms. Some of the nobles can read a little Russian, but they are unacquainted with their own language. Drunkenness prevails to an incredible extent; and scarcely any limits are set to unchastity in its most offensive and sinful forms. The sacredness and validity of an oath are unknown.

K'houthaisi, *Kotais*, *Kotatis*, *Coutais*, or *Koutais*, the capital, stands on the Rioni, in an unhealthy situation, where the river first reaches the plain, nearly in the centre of the province. It is a small town with about 1600 inhabitants, nearly one-half of whom are Jews. The split and naked rocks which rise above the town are covered with ruins of every description, temples, churches, bridges, aqueducts, towers, &c. overgrown with ivy, brambles, and pomegranate bushes, being all that remains of the ancient city *Kuta* or *Cutisium*, the birth-place of Medea, so celebrated in classic mythology for her share in the success of the Argonautic expedition. *Poti*, a fort near the mouth of the Phasis, on the Black Sea. *Redout-Kaleh*, a small fortified town, about 10 miles north from the Phasis, on the coast. The roads are unsafe, and there is no harbour. It occupies an unhealthy situation, and owes its existence to the commercial privileges granted in 1821, for ten years, to the Transcaucasian provinces. While these privileges existed, the merchants of Teflis, who visit the German fairs, used to send their purchases, generally by way of Odessa or Trieste, to this port; but in consequence of the restrictions and prohibitive duties since imposed by the Russian government, the trade has been transferred to Trebizond, and Redout-Kaleh is now almost deserted.

5. *ABASSIA* or *ABKHAZ* lies along the north-east coast of the Black Sea, between the shore and the summits of Caucasus, being about 260 miles in length and less than 30 of average breadth. It is also called the *Great Abassia*, to distinguish it from another region named the *Little Abassia*, on the northern side of the mountains, towards the sources of the Kouban. The country is fertile though very mountainous; very moderate labour produces rich crops, and the herds of cattle are numerous and productive. It is possessed by wild independent tribes, who have set the Russian power at defiance; and though the Russians mark on their maps nearly half the country as subject, yet their authority is in reality acknowledged no farther than their arms can reach. The Abassians were formerly well known as pirates on the Black Sea. Many of them used to prosecute their fortunes in Egypt, where they rose by their bravery to eminent military rank: the greater number of the Mamelukes were natives of this country. Their women are beautiful, and much sought after in Turkey, where they generally pass for Circassians. The chief towns and forts are: *Anapa*, a small town and fortress 45 miles S.E. by E. of the Strait of Yenikaleh, which is in possession of the Russians. It was formerly the chief emporium of the Turkish trade with the Caucasian tribes, and from it the Georgian and Circassian slave girls were supplied. *Soujouk-kaleh*, a ruined fortress occupying an important position on a splendid bay which affords safe anchorage, 25 miles S. by E. of Anapa. *Ghelenjik*, 16 miles farther S.E., is a Russian fort formed of intrenchments and palisades mounted with heavy guns, and contains a garrison of 2000 men. It has one of the best harbours in the Black Sea. About 15 miles farther S.E. is the bay of *Pshad* or *Pshiate* (French *Pchad* or *Pchiate*), where the Russians are said to have lately (1837) erected a fort. *Vadran*, 50 miles S.E. of Ghelenjik, is also occupied by a fort. *Pitzounda*, 80 miles S.E. of Vadran, where the Russians have a fort, two miles from the coast, to which, says Spencer, the road leads through a forest of splendid trees of oak, beech, and chestnut; with wild olives, figs, and pomegranates in full bloom, and vines of enormous growth wreathed from tree to tree. *Soukgoum-kaleh* or *Souchom-Kaleh*, 30 miles S.E. of Pitzounda, and in the south-west angle formed by the intersection of the meridian 41° E. with the 43° N. lat., is a miserable spot, more fatal than any other to the Russian garrison. When in possession of the Turks it is said to have contained a population of 3000; but it has now decreased to little more than a dozen of wretched huts, inhabited by a few Greeks and Armenians. There is also a square fort in a very dilapidated state, but fully mounted with cannon.

6. *CIRCASSIA* extends along the north side of the Caucasus, from the sea of Azof to the Upper Terek; but, by the gradual progress of Russian encroachment, the independent Circassians are now restricted to the comparatively small region which lies between the Kouban and the mountain tops, forming something like a triangle of 220 miles in length from east to west, and 120 in its greatest breadth. It comprises the northern declivities of Caucasus, and sinks into a flat towards the banks of the Kouban. It is possessed by a wild people who call themselves *Adeches* or *Adekhes*, a name denoting a mountain ravine on the sea; but their neighbours, the Nogai Tartars, call them *Tcherkesses*, a name which well expresses the ferocity of their disposition, being derived from *tsherk*, to cut off, and *kes*, the head. From this Nogai word is derived their European name of Circassians. They are divided into ten tribes, whose habitat cannot be specified, as they often change their residence; their character ever, and condition are continually fluctuating according to the character and circumstances of the settlers who come among them. These tribes bear the names of certain rivers or districts, or of individual founders, and number altogether, it is said, about 272,400 males. The only class of society is the military; every head of a family being obliged to protect, as well as to cultivate, his own property. Among some of the tribes, however, there is a sort of nobility, destitute of privilege or influence. Some have slaves, who are not natives, but captives in war, or purchased strangers. In former times the Circassians were governed by despotic princes; but, since 1769, the government has been vested in a sort of senate, or council of elders. Of these assemblies, there is one in every subdivision of a tribe, but their deliberations must be confirmed by the general assembly of the people, which often overrules the decisions of the council. This state of things gives rise to continual bickerings, animosity, and deadly hatred among the tribes. In religion the Circassians are Mahometans; in respect of moral character, they are a set of lawless plunderers, who respect only those of their own tribe or lineage. The adjoining provinces can never prosper, while they have such neighbours as these, who are ever ready to harass, and rob, and murder the peacefully disposed citizens; and it is therefore the interest, if not the duty of the Russian government to extirpate or subdue them. In external appearance, however, the Circassians are a remarkably fine race, and their women are reputed the most beautiful of the Caucasians. Their houses are formed of hurdles covered with clay, and thatched with straw. Forty or fifty of such huts, arranged in a circle, form a village, in the centre of which the cattle are placed for safety during the night. Their horses, which are considered inferior only to those of Arabia, roam freely in the fields, without ever entering a stable. Their agriculture is in a state of primitive simplicity; but the great fertility of the soil makes up for their want of skill or industry. The management of bees is an important part of their rural economy. The Circassian language differs much from those of the other Caucasian tribes. It is never written; and when a Circassian has occasion to send a letter, he applies to his mollah, who writes it for him in the Turkish tongue. The original country of the Circassians is also called *Kabardah*, which is divided into two portions, the Great and the Little; the former comprising the basin of the Kouban; the other, the upper and the middle parts of the basin of the Terek.

7. *DAGHESTAN* and *LESCHISTAN*, comprise the mountainous country which lies between the west coast of the Caspian Sea, and the summits of the eastern Caucasus, as far west as the Koison; and

extends into Georgia as far as the Alazan, an affluent of the Kur. Along the coast Daghestan extends from the Terek to Abcheron, a distance of 260 miles, while its greatest breadth, between the sea and Mount Tersh, is about 100. The north-eastern part of Lesghistan is included in this measurement; but its southern portion extends beyond it, down the southern slopes of the mountains. As the name implies, Daghestan is the country of mountains; but the soil is extremely fertile, and the climate is mild. The territory of *Kouba*, in the southern part of the province, has been called by the Persians, the paradise of roses; and in some parts of it, the vine may be seen shooting from every cleft of the rock. But these fine regions are subjected to excessive humidity; and are in several places infested with reptiles and pernicious insects. Daghestan abounds with rivers, which, as their courses are very short, are scarcely worth naming. The largest of them is the *Koisou*, which flows into the Gulf of Agrakhan, after a course of 140 miles. The *Samour* has a course nearly as long, and discharges its abundant waters by ten or twelve mouths, between lat. $41^{\circ} 50'$ and 42° . The inhabitants of the lowlands of Daghestan are a mixed race descended from Persian, Arabian, Syrian, Turkish, and Tartar colonists, mixed with the aboriginal Caucasians. The mountains are inhabited by the *LESGHIS*, the most predatory and ferocious of all the Caucasian nations; who appear to have been established in this region from time immemorial, and are mentioned, not only in the ancient chronicles of Georgia, but even by Strabo and Plutarch. They are considered as among the bravest of the Caucasians, and are always ready to serve as mercenaries in the wars of their neighbours; their fidelity may be relied on as long as they are regularly paid. The majority of them are now Soonee Mahometans, but a few faint vestiges of Christianity may also be traced among them. The weak bonds of society are held together only by hospitality and the law of retaliation. They used to be the terror of all the surrounding provinces; and they so perseveringly and successfully resisted the power of Persia, as to give rise to the proverb, "If a king of Persia is a fool, let him march against the Lesghis." They were, however, at last driven, in A.D. 1742, by the arms of Nadir Shah, to seek protection from Russia, and swear allegiance to the Czar; they now pay a small tribute of silk or money, and the influence of Russia is effectively felt in the election of their rulers. But they are still even worse than the Circassians for their predatory habits and blood-thirstiness. The Russians for a long time, instead of residing and having military posts among them, stationed troops along their frontiers, to prevent them from pillaging the adjacent districts; and the country used to be a sort of asylum for refugees from Russian justice or oppression; but Marshal Paskewitsch is said to have lately reduced some of the tribes to absolute subjection. The Lesghis are divided into numerous tribes, whom the nature of their country keeps so isolated, that no such thing as a general confederacy or national union seems ever to have been known among them. Their language has no analogy with any known tongue except that of the Samoiedes, to which it has a distant resemblance. It is divided into numerous dialects, which Guldenstaedt has endeavoured to arrange into eight classes, each comprising the speech of several tribes. The first of these is the *Avar*, which comprises the *Arars*, and fourteen other tribes resembling them, who all dwell in the north-western parts of Daghestan. The *Avars* themselves occupy the upper valleys of the *Koisou*, and their khan, the most powerful prince of the eastern Caucasus, resides at Koun-dzakh, a large village, where he has a spacious mansion, with glazed windows. The king of Georgia used to pay the predecessors of this khan about £1000 sterling a-year, as black mail, to save his subjects from Lesghian ravages; the Russians now pay him a pension of about £1660, in consideration of which he always acts in subservience to their wishes and directions. The *Avars* are believed to be the remains of the *Avars* or *Huns* who took refuge in this part of Caucasus. The only other tribes worthy of notice are the *Akushas* and the *Kubashas*, both comprised in the fifth of Guldenstaedt's classes, and the *Kasi-Coumyks* (or *Koomooks*), who form the seventh. The *Akushas* dwell on the *Koisou*, and form a republic, composed of about thirty villages. They have neither princes nor nobles; but are divided into twelve tribes, each of which has a chief, who possesses, however, no power to command, but only that of advising. They sell their services to the highest bidder, and will fight against any other tribe except the Shumkhal of Terki, whose supremacy they formerly acknowledged, and who permit them, without remuneration, to graze their flocks on the rich meadows along their frontier. The *Kubashas* also live near the *Koisou*, in a large town of the same name, with eight dependent villages. They call themselves Franki, on which account they have been supposed to be of Venetian or Genoese origin; but they resemble in every respect the other Lesghis, and their language is a dialect related to the *Akushan*. They are known throughout the East as the *Zer-kherans*, or makers of coats-of-mail; they manufacture splendid arms, and fine cloth or shawls, which are highly prized, not only in the Caucasus, but even in Persia, and the countries beyond the Caspian. They neither cultivate the ground, nor rear cattle, but exchange the produce of their manufacturing industry for the necessaries of life. They always live on good terms with their neighbours, and court their friendship; but are nevertheless ever on their guard against attack, and the only two passes leading to their country are defended by fortifications, mounted with small copper cannons, cast by themselves. They never make war, nor pay taxes; they are governed by a council of twelve elders, chosen by the people; and their disputes are settled by arbitrators, to whose decisions they submit without a murmur. The *Kasi-Coumyks* live also on a branch of the *Koisou*, under a khan, whose authority extends over 100 villages, and who is fiercely opposed to the Russians. He resides at a place called Chahar or the town, and can raise on an emergency 6000 men. The *Kasi-Coumyks* are zealous Mahometans; they practise agriculture as well as the rearing of flocks, and are notorious marauders. Besides these seven classes, there are several other Lesghian tribes not enumerated by Guldenstaedt, whose dialects he could not ascertain.

Town in Daghestan.—*DERBENT*, an ancient but decayed city, on the Caspian, in lat. 42° N. long. 48° E., in a very pleasant situation, which rises gradually from the sea to the top of a hill, and commands a very extensive prospect, especially towards the south-east. It is surrounded by an ancient wall, built of large square stones, and formed, during many centuries, the key of the Persian empire in this quarter. It is still supposed to contain so many as 4000 families. In the neighbourhood is a tomb said to be that of forty Arab heroes, who were killed in battle against the infidels, when Derbent was taken by the Khalifs. The Mahometan Lesghis still make pilgrimages to it. Near Derbent are the remains of a great wall, which formerly extended to the Alazan, and was built by Kho-r Noushirvan, king of Persia, to prevent the incursions of the Khasars; but which the people of Derbent ascribe to Alexander the Great, the wonder-worker of Western Asia. The upper castle of Derbent is built on an abrupt rock three miles from the shore; the lower stands close upon the water. These are connected by a double rampart, but to what era it is impossible to decide. *Kouba*, 50 miles S. of Derbent, was formerly the capital of a Khanat, one of the most powerful in Daghestan, and is now the chief town of the province or district of Kouba. Its situation being unwholesome, a new town of the same name has been founded at a short distance to the westward. *Barchly* or *Bereklei*, 20 miles N.W. of Derbent, is the residence of the khan of the Kaitak, who bears the title of *Qusmai*, and exercises a sort of sovereignty over the *Akushas* and *Kubashas*. *Tarkou*, *Terki* or *Tarki*, 75 miles N.N.W. of Derbent, the residence of a khan, with the title of *Shumkhal*, is built in terraces upon three peaked hills, about three miles from the Caspian sea, and has a population of 10,000.

8. The old province of CAUCASUS includes all the country to the north of the Terek and the Kouban, lying between the Caspian sea, and the eastern border of the government of Taurida, and bounded on the north by the rivers Kouma and Manytsh. It is almost entirely a sandy steppe; but the province may now be considered as including also the hill country between the Upper Kouban and Lesghistan,

to the summits of the Caucasus, called Kabardah and Little Abassia, and inhabited by the *Ossetes*, the *Mistjehghis* or *Kites*, and several of the subjected Circassian and Abassian tribes. The eastern portion of the mountains, bordering on Lesghistan, and extending westward and northward to the upper Terek and its affluent the *Souja*, is occupied by the *Mistjehghis*, some of whom are nearly as great robbers as the Lesghis. The Russians have not yet been able entirely to subdue them, and it is even necessary to send an escort of 150 men with official dispatches from *Mozdok* to *Vladikaukas*. The *Chechenzies* are the most powerful tribe; the *Karaboolaks* are as wild and troublesome; but the *Ingosshes* have been subdued, and are more inclined to agriculture and peaceful occupations than any other of the Caucasian highlanders; though in religion and moral feelings they are not superior to their neighbours. The *Ossetes* live to the west of the *Mistjehghis*, and are a people of precisely the same character. Their language and other circumstances have induced some writers to believe that they are a Median colony transplanted into the Caucasus at some remote epoch; and *Klaproth* supposes them to be the *Sarmato-Medians* of the ancient, and the *Alani* or *Ases*, of the middle ages. The Russians have, as yet, succeeded in establishing their authority over only a few villages in the valleys of the Terek, through which the military road to Georgia passes. The low country, to the north of the Terek and the *Kouban*, is inhabited by *Nogai-Tartars* and *Coumyks*; the latter of whom possess the lower parts of the rivers *Sundsha*, *Koisou*, and *Axai*; the former the country farther west.

The Russians first got possession of this country in the time of Peter the Great, who even extended his dominion along the Caspian Sea into *Ghilan*; but, in the reign of the Empress *Anne*, the military establishments were withdrawn to *Kislar*, and a line of forts carried along the Terek, for the defence of the frontier. *Mozdok* was built in 1703, and from that point the line was extended gradually westward to the Sea of *Azov*, along the northern bank of the *Kouban*. The wars in which the Russians have been engaged with Persia and Turkey having led them again to the south side of the Caucasus, they have been anxious to establish their authority over the intervening mountain tribes, who, if not reduced to subjection, are likely to prove the most troublesome and dangerous neighbours. In the course of time they will probably succeed in effecting their subjugation; but as yet their progress has been very slow; and, as the policy of the government is not to adopt the only means of civilizing them, by introducing a rational system of moral and intellectual education, the contest will most probably end in the extirpation of the mountain tribes.

Starorodol, the capital of the province, is a neat fortified town, near the *Kouban*, lat. 44° 49'. N. long. 41° 50' E. *Georgievsk*, the capital of the province till 1825, and still the residence of the military governor-general of Caucasus, is a well-built fortified town, on the left bank of the *Pod-Kouma*, 90 miles S.E. of *Starorodol*. *Konstantinogorsk*, a small town, 20 miles S.W. of *Georgievsk*, is celebrated for sulphureous warm baths, which are resorted to by people from the farthest parts of the empire. *Petigorsky*, another much frequented watering place, 40 miles W. of *Georgievsk*; the water is hot, and strongly sulphureous. At *Kislarodsky*, S.W. of *Georgievsk*, there is acid water. *Karass*, a neat town, between the two last named places, at the foot of the *Bech-tau* (the five mountains, 4320 feet high), is remarkable for a colony of Germans and Scotch. *Mozdok*, a commercial town, and one of the principal military stations on the line of the Terek, 80 miles E. by S. of *Georgievsk*. *Kislar*, an important fortress and a large town, on a branch of the Terek, near its mouth. Besides the garrison its population is reckoned at 9000, the greater part of which are Armenians. Some of them are very wealthy, and have built for themselves the finest church in the region of Caucasus, at the expense of £24,000 sterling. *Vladikaukas*, on the right bank of the Terek, nearly under the 43d parallel N. lat. and 45° E. long., is a small fortress, with earthen ramparts and a ditch, which are well protected by palisades. Though comparatively insignificant, it has fully answered its purpose of keeping the neighbouring mountaineers in check, and preserving the communication through the pass of *Dariel*, of which it may be called the key. A suburb extends between the fortress and the Terek, which is partly inhabited by Russian dealers, traders, and soldiers, and partly by peaceful *Ossetes*. There are also some large gardens, where every kind of vegetable, but more particularly cabbages and potatoes, thrive admirably. There is also a celebrated orchard planted by General *Del Pozzo*, a late commandant.

§ 2. Siberia.

Siberia is the general name of the vast region which extends in length from the Ural mountains, on the borders of Europe, to *Behring's Straits* and the northern Pacific Ocean, which separate it from America; and in breadth from the Arctic Ocean to the Altai mountains, which form the border between the Russian and the Chinese empires. Its extreme length, measured from the southern extremity of the Urals to *Behring's Straits*, exceeds 4000 miles; and its greatest breadth, from the parallel of 50° N. lat. to Cape *Severo-Vostochni*, about 1870. The original Siberia was a small khanat founded by the *Tartars* in the year 1212, on the banks of the *Irish* and the *Obi*, which took the name of *Sibir*, from its capital. This khanat was invaded by the Russians in the sixteenth century, and after considerable resistance, was added to the dominions of the Grand Duke. As the Russian discoveries and conquests extended to the eastward, the name was vaguely applied to all the newly acquired country, till at length it reached the farthest limits of Asia on the Arctic and the Pacific Oceans; and it was even, for a time, extended to the kingdoms of *Astrakhan* and *Kazan*, on the west of the Urals. The name is now definitively restricted to the country east of those mountains.

Siberia may be described generally as an immense plain, sloping upwards from the Arctic Ocean to the Altai mountains and the Urals; but with an ascent so gradual as to be scarcely perceptible. The Urals extend along its western border from near the gulf of *Karskaia*, in lat. 68° N., to the river *Ural* in lat. 51°; but in few places exceed the elevation of 5000 feet, their higher summits being to the north of the Polar circle; and immediately to the east of them lies the basin of the great river *Irish*. This tract is so low, that at *Tobolsk*, 550 miles, in a straight line, from the gulf or sea of *Obi*, the lower portion of the town is only 128 feet above the level of the Arctic Ocean. And even the basin of the upper *Irish*, on the south side of the mountains, 1750 miles from the ocean in a straight line, or 1000 miles more by the course of the river, has been found not much to exceed 1900 feet. At *Irkutsk*, on the *Angara*, 1400 miles from the ocean, in a straight line, measured along the 105th meridian, the elevation is 1246 feet; but at *Kiakhta*, 150 miles farther south, it rises to 2228. At *Yakutsk*, on the *Lena*, 550 miles from the sea, on the 130th meridian, the elevation is only 287 feet; and even at *Kathuga*, near *Irkutsk*, where the rivulets which form the upper branch of the *Lena* have their sources, it is only 1509 feet. The country which forms the watershed, in this direction, between the basins of the *Lena* and the *Angara*, though extremely uneven, is not mountainous; but a considerable rising is perceptible from *Irkutsk* to *Kathuga*, and the highest point of the road between them is 1771 feet. From *Yakutsk* to the river *Aldan*, the ground rises continuously, but gradually, as it proceeds eastward, till at *Nokhinsk*, on the western bank of the *Aldan*, it reaches 751 feet. On the eastern banks of that river, the mountain range, which has derived its name from the stream, rises with a steep ascent. The mountain pass on the road to *Okhotsk* is 2619 feet high; and *Mount Kapitan*, the highest point of the *Aldan* mountains in this direction, rises to 4055 feet. On the east of *Mount Kapitan*, the country continues to be from 2100 to 2500 feet above the level of the sea; and only to the east of *Ketanda*, in 60° 40' N. lat., and 141° 35' E. long., it descends with a rather steep declivity to *Okhotsk*, which is only 13 feet above the level of the sea. The mountains of *Aldan* form

the eastern boundary of the great plain of Siberia, and leave between them and the sea of Okhotsk, only a very narrow strip of land covered with marshy forests, which produces scarcely any plant subservient to human subsistence.

The plain of Siberia seems to consist almost entirely of steppes and marshes, intersected by large sluggish rivers, which roll down an immense mass of water to the Arctic Ocean. The steppes are extensive plains, somewhat different from each other in nature and aspect. In some places they are, like the American savannahs, covered with abundance of tall grass; in others the soil is saline, the salt appearing in the form of an efflorescence mixed with the earth, or in ponds or lakes of salt water; in general, they consist of very loose soil, and contain many lakes, because the waters, finding no declivity, remain stagnant. The steppe of *Ischim* occupies the greater part of the country to the south-west, between the Tobol and the Irtysh, an extent of 700 miles from east to west; and the country between the Irtysh and the Obi is occupied by the steppe of *Barabinsk*, of hardly less extent than the other, which comprises the whole space between the Irtysh and the Obi. It is by no means dry and parched, as the word steppe is sometimes thought to imply, but abounds, on the contrary, with water to a remarkable degree, being full of lakes, morasses, and rivers, which flow either into the Om, the chief river of the steppe, or into the Obi or the Irtysh. In some places the plain is a bog as level as the sea; here and there it is covered with grass or weeds, and with poplars and birches. Many of the little lakes are salt. The two largest are the *Uba* and the *Ikul*. The steppe of Ischim, sometimes, though rarely, presents the same aspect; and in both many tumuli or barrows are found, containing the remains of Tartar or Mongolian chieftains. Between the upper Obi and the Ienisei is a hilly ridge, which, however, disappears in the neighbourhood of Ieniseisk; and though there are some groups of hills in the south-western part of the district of Mangaseisk, which send a few small streams to the ocean, these are mere specks in the vast marshy plain which extends between the lower parts of the Obi and the Ienisei, presenting a dismal region, where the ground is continually frozen to a great depth, only superficially thawed in summer two or three feet, and covered here and there with some stunted plants, and a carpeting of moss. Beyond Beresov, in $63^{\circ} 20' N.$ lat., the face of the country along the Obi consists of an uninterrupted swamp, which is constantly frozen over, and unvaried by tree, hill, or mountain, except that the dwarf pine and the sand willow are occasionally seen. Such is the only prospect which meets the eye of the traveller for 400 miles along the Obi to Obdorsk, near its mouth. Farther to the east, in the country of the Tongouses and the Yakuts, lofty and well-grown larches veil the barrenness of nature, for 400 miles inland, but their number decreases as the traveller proceeds northward, and they gradually become dwarfish and stunted. Both the tree itself and the moss which covers it become coarser, but nothing can save them from the destructive blast of the north wind. A few stunted birches are the last to contend with this dread enemy, and the 70th degree of latitude may be assigned as the limit to the growth of trees. Between that line and the Arctic Ocean, extends an apparently interminable waste, called the *tundra*, consisting of land, lakes, and sloughs. It contains few rivers or streams, but some of the lakes are large, and of considerable depth, and all of them abound in fish. A death-like silence reigns throughout, only interrupted by the summer birds of passage. Still further north than this dreary region, there is a chain of large islands, separated from the mainland of Siberia by a strait of the Arctic Ocean, which is free from ice only for a few weeks in August. The general depth of this strait is small, although a strong current sets through it in the direction of Behring's Straits. In many places the former limit of the sea may be traced several miles inland; it is, in general, high and steep, whereas the present shore is low and flat; and on the intervening space is found a quantity of dry and half-decayed wood, apparently left there by the receding waters. Icebergs sometimes rest on the bottom of the strait. The islands extend 400 miles in a direct line from east to west, from the Lena to the Kolima, between the 74° and $77^{\circ} N.$ lat. The largest is named Kotelnoi; which is hilly, and watered by a small river. Ammonites with a pearly lustre are found in its sands. Another of them is named *Novaia-Sibir* or New Siberia, discovered in 1809 by M. Hedenstrom, who explored 140 miles of its coast. The Arctic Ocean may be said to commence only to the north of these islands in the 76° of latitude. It never freezes, but in March every year a few detached blocks of ice may be seen floating upon it. The regions along the southern borders of Siberia are, as might be expected, considerably different from those we have now been describing. Though hilly in many places, they contain large tracts of excellent pasture ground, and some which are even very fertile in grain; so much so, that in the district of Krasnoyarsk on the Ienisei, the soil is so rich that it requires very slight labour, and may be cropped for five or six years, or even more, in succession, without manure. In the neighbourhood of Irkutsk the country is agreeable, the soil fertile, and agriculture flourishing. Kirensk, on the Lena, has also a fertile territory, producing plants of extraordinary size. As the Baikal is approached the country becomes more and more mountainous; and the district of lower Udinsk, to the south of the lake, is almost entirely covered with dark and marshy forests, where the soil produces nothing but moss and marsh plants, similar to those of the northern regions; and Upper Udinsk appears to be composed of sand and rocks, with a soil ill fitted for the culture of vegetables. It possesses, however, an astonishing variety of soil and climate; containing in one place narrow, gloomy, and cold valleys; and in another, hot sandy plains, and a little way off, a surface of neutral salts. The province of Nertshinsk, south-east from the Baikal, along the Amoor, is covered with mountains. The plains are only wide valleys containing every where precipitous and perpendicular rocks, which have the appearance of being suspended in the air.

RIVERS AND LAKES.—The Obi issues from Lake Teletskoi or Altyn Nor, in the territory of the Kalmycks, near the frontier, under the $52^{\circ} N.$ lat. Insignificant at its origin, it goes at first by the name of By or Biya, and only takes that of Ob or Obi after its union with the *Katunja* or *Katunya*, a large river, which joins it from the west. It passes through the governments of Tomsk and Tobolsk, becoming larger and more rapid by the accession of many powerful streams, and enters the Arctic Ocean at the head of the deep gulf or sea of Obi, to which it gives its name. Its affluents on the right are the *Tom*, which waters Tomsk, the *Choulim*, the *Ket*, the *Tim*, and the *Takh*. The principal affluent to the left is the *Irtysh* (Irtyche or Irtysh, Ertyshish of the Mongols), as large as itself, or, as some say, rather larger, which, rising in the great Altai mountains under the $46^{\circ} N.$ lat., forms the lake *Zaisang* in the Chinese territory, and thence flows north through the mountain border of the two empires. It receives in its progress the *Naryn*, *Bukhtarma*, and *Uba*, before it enters Siberia, and afterwards the *Ischim*, *Tobol*, *Sosva*, and several other streams from the left, and joins the Obi in lat. $61^{\circ} N.$ The Teletskoi lake, from which the Biya issues, is inclosed by high mountains, but receives a considerable river, the *Chulyshman*, from the Chinese territory.

The IENISEI has its sources in the country of the Ouriangkai, in the Chinese territory, where it is formed by the union of the Oulou-kem, and the Beikem. After entering Siberia it flows almost due north to the ocean, with a very large and rapid stream, which, even at Ieniseisk, is already 3600 feet wide. Its principal affluents on the right are, the *Upper Tongouska*, the *Podkameniaia Tongouska* (Tongouska beyond the rocks), and the *Lower Tongouska*, which is the largest of the three. The Upper Tongouska issues from the Lake Baikal, under the name of *Angara*; and if we consider the *Selinga*, the principal feeder of the Baikal, as a continuation of the Angara, then the remote sources are to be traced to the south side of the Altai, nearly 500 miles south-west of Irkutsk.

The *Piasnia*, the *Taimoura*, the *Khatonga*, the *Anabara*, and the *Olenok*, are comparatively small rivers which enter the ocean between the Ienisei and the Lena.

The *LENA*, one of the largest rivers of Asia, rises at Katshuga near Irkutsk, 2000 feet above the level of the sea, flows north-east and nearly due east to Yakutsk, where it turns north, and flows in that direction to the ocean, which it enters by several mouths. Its principal affluents on the right are, the *Aldan* and the *Vitim*; on the left, the *Filoui*. The *Iana*, the *Indigirka*, and the *Kolima* or *Kolyma*, are considerable rivers which enter the Arctic Ocean to the eastward of the Lena. The *Anadir* flows eastward to the Gulf of Anadir, to the south of Behring's Straits.

The *URAL*, which forms the boundary between Europe and Asia, rises on the east side of the Ural mountains, from the foot of Mount Kolgan, in lat. $54^{\circ} 50'$ N., and flows nearly due south for upwards of 250 miles, when it turns westward and leaves Siberia.

The great Lake *BAIKAL*, in the south-eastern part of Siberia, embosomed among high mountains, between 51° and 56° N. lat., and 104° and 111° E. long., is about 360 miles in length, and from 20 to 52 wide, about 1200 in circumference, and contains a surface of 14,800 square miles. Its depth varies from 20 fathoms to 100, and in some places exceeds even 200. It contains many islands along the eastern and some on the western shores; but most of them are of small extent, and only masses of rock. The largest island, named Olkon, is 32 miles in length, by 10 in breadth, is rocky and mountainous, and is separated from the shore by a strait two miles wide and very deep. The water of the lake is fresh, and extremely clear. It freezes in November, and thaws in May, and during winter is crossed in sledges. It is subject to remarkable agitations, being sometimes raised into high waves by a moderate wind, and at other times scarcely put in motion by a violent storm. It also is said to be liable to a kind of intestine commotion or boiling, by means of which vessels receive rough shocks, even when the surface is perfectly smooth. The lake contains seals, though none of these animals are ever known to ascend the river *Lenisei*, and its affluent the *Angara*, which issues from the lake. It also contains a particular kind of fish, which the Russians call *Soliamanka*, and which, according to Pallas, consists entirely of bones, and an oily grease. The waves sometimes throw on shore a kind of bitumen. The principal feeders of the lake are the *Selinga*, on its south-east side, which has a course of 700 miles; the *Upper Angara*, at the north-east end, which has a course of 450 miles; and the *Bargusin*, on the east side, which has a course of 300 miles. The surplus waters are discharged by the *Lower Angara*, which issues through a deep crevice near the south-west point of the lake. The Russians speak of the *Baikal* with a respectful awe; and give it the name of the Holy Sea; even the surrounding mountains are held sacred. Its name is derived from the language of the Yakuts, who call it *Bayakhal*, the rich water. Its surface is 1793 feet above the level of the sea. In summer it is navigated by the Russians, and in winter it is crossed in sledges.

The other lakes are of little importance. Lake *Tshamy*, 80 miles in length by 50 broad, lies in a part of the steppe of Baraba which is filled with lakes almost touching one another. The province of Kolhvan and the steppe of Isehim also contain a great number of lakes of which *Karg-Algydum* is the largest. In the districts of Iset and Iekaterinburg the number of small lakes is very great. Salt lakes are almost equally numerous, and are found in all parts of the country. The lake *Bielsi* or *Ebelsi*, in the steppe of Isehim, is one of the most abundant in producing salt; and in the middle of the steppe of Baraba is the famous lake *Yamish*, 7 or 8 miles in circumference, the salt of which is extremely white, and crystallizes in cubes.

CLIMATE.—The climate of Siberia is, in every sense of the word, excessive. Exposed without shelter throughout its whole length to the winds which blow from the Polar ice, and excluded by the high mountains of Central Asia, from the more genial breezes which would otherwise reach it from the equatorial regions, the cold in the northern part is keener and more constant than that of Lapland, and the same intensity is sometimes experienced among the southern mountains between the parallels of 50° and 55° . The winter lasts for nine or even ten months. Snow begins to fall in September, and is not rare even in May. The corn crops, when not ripe in August, are considered as lost; and they are often covered with snow before they can be cut down. The consequence of this almost continual cold is, that in all the northern parts of the country the ground is constantly frozen to a great depth; and it is only the surface that is thawed by the summer heat to a depth of from one foot to three feet and a half. Even so far south as the latitude corresponding to Scotland, between 56° and 58° , Humboldt found some springs of no great depth, the temperature of which was $31^{\circ} 7'$ and $36^{\circ} 5'$. Some degrees to the north of Irkutsk, where the mean temperature of the year is between two and three degrees below the freezing point, the soil always remains frozen to the depth of 12 or 15 feet. At Bogoslovsk, in the middle of summer, a bed of frozen earth, nine feet and a half thick, was found at the depth of six feet below the surface; and, at Yakutsk, 62° N. lat., notwithstanding the high temperature of the atmosphere, in July and August, the subterranean ice is perpetual. At Yakutsk, in lat. $62^{\circ} 1\frac{1}{2}'$ N., a well has been lately sunk to the depth of 382 feet, by which the temperature has been ascertained; and this immense thickness proves that Siberia must have been in the same physical condition for a long period of years as it is at present. The mean temperature of the atmosphere at Yakutsk is 6° Reaumur; in 1828, the mean temperature of January at two P.M. was -35.7° Reaumur, and the mercury did not thaw for three months in succession; in ordinary years it is solid only for two months. It is impossible to determine accurately, in the present state of our information, the boundary of this layer of ground ice, we know only enough to say, that it extends over an immense tract of country. Humboldt found the soil frozen at a depth of six feet at Bogoslovsk, $59^{\circ} 41'$ N., near the Urals. Near Beresov, Erman found the temperature of the soil at a depth of 23 English feet to be $+1^{\circ}$; but in 1821, a dead body, which had been buried upwards of 92 years, was found in a bed of ground ice showing no signs of decomposition. It has long been known that the soil at Obdorsk is always frozen. At Tobolsk there is no ice, but the farther we proceed eastward the more the direction of the ice is to the south. Georgi found it on the shores of Lake Baikal, and it is said also to be found at Nertsinsk. No ice is found at Okhotsk, and the soil is in general warmer on the shores of the Pacific. The summer heats are short, but are sudden and powerful. In the neighbourhood of Yakutsk the Tongouses often go naked in summer. The growth of vegetables is almost perceptible. But in the neighbourhood of the Arctic Ocean, in the middle of the long day of the polar circle, a north wind is sufficient to cover the waters with a thin crust of ice, and to give a yellow and red tinge to the leaves of plants. Vegetation is often limited to a few days; but in that short interval the plants flower and form seed; they sometimes even grow in the morasses, where at all times ice is found on raising the moss. At Kolyma, the vegetation of summer is little more than a struggle for existence. In the latter end of May the stunted willow bushes put out small wrinkled leaves, and those banks that have a southern exposure, become clothed with a greenish hue. In June, the temperature at noon attains 72° ; the flowers appear, and the berry-bearing plants blossom, when sometimes an icy blast from the sea gives the verdure a yellow blight, and destroys the bloom. The air is clearest in July, and the temperature is then usually mild, when millions of musquitoes darken the air, and force the rein-deer to leave the forests, and take refuge in the cold open plains near the sea, where they are pursued and killed without difficulty by the hunters. Winter prevails for nine months. In October the cold is somewhat mitigated by thick fogs, and by the vapour which rises from the freezing sea; but in November the great cold begins, and in January increases to 65° . Breathing then becomes difficult; the wild rein-deer withdraw to the deepest recesses of the forest, and stand there motionless as if deprived of life. As the sun returns the cold becomes even more piercing; and the intensity of frost which accompanies the rising of the sun in February and March is especially penetrating. Perfectly clear days are extremely rare in winter, because the sea-winds

which always prevail, bring with them vapours and fogs, which are sometimes so thick as wholly to conceal the stars. But, though the climate is so severe and unkindly, it is not injurious to health; and the inhabitants are not subject to scurvy nor other infectious diseases. Storms are frequent in the southern regions; but near the ocean thunder is scarcely ever heard, though distinct flashes of lightning are sometimes seen. In the low countries on the Irtisei, the aurora borealis is seen from the beginning of October till Christmas; and in no country does this phenomenon exhibit greater magnificence. The climate of Siberia is, on the whole, favourable to man. Fogs prevail not only over the northern and eastern regions, but also in the steppe of Baraba, the inhabitants of which have a cachectic look. In Daouria, and round Nertshinsk, the confined narrow valleys give rise to fevers, epilepsy, and scurvy.

NATURAL PRODUCTIONS.—In so rigorous a climate only the most hardy plants can thrive: the oak, the hazel, the alder, the plane, and the wild apple, cannot withstand the rigours of the Siberian winter. They disappear in the neighbourhood of the Urals and the banks of the Tobol; but the oak and the hazel appear again, though feeble and languid, on the banks of the Amoor. The lime and the ash cease at the Irtish; the pine, which in Norway reaches the parallel of 74° , does not in Siberia pass beyond 60° ; the silver fir reaches no farther than 58° . The common gooseberry, which grows in Greenland, does not succeed farther north than Türukhsank on the Irtisei, in lat 66° . Potatoes diminish in size, till, at the latitude of 60° , they are no larger than pease, and here the cabbage ceases to expand. But we are not to conclude from these facts that the great Siberian rivers pass through barren wastes; for they are skirted with thick forests of alders, willows, elms, Tartarian maples, white and black poplars, and aspens, besides an immense quantity of different kinds of pines, among which the Siberian cedar (*pinus sibirica*) sometimes reaches a height of 120 feet, while its rings of branches sometimes indicate an age of 150 or 200 years. It is only as far as the Irtisei that this tree displays its magnificence; to the east it diminishes in size, and, beyond the Lena, towards the eastern sea, it becomes quite dwarfish, though still preserving its proportions. The balsam poplar perfumes the air, and exudes its odoriferous resin. Siberia produces neither apples nor pears. The wild pear of Daouria only yields a tasteless fruit, of the size of a cherry. The fruit of the Siberian crab is also small; but the berry-bearing undershrubs, the *rubus chamaemorus*, the *rubus arcticus*, and different kinds of *vaccinium*, abound, and agreeable drinks are made from them. The steppes are covered with a kind of cherry tree, the fruit of which is abundant, and is used for making a species of wine. The Siberian apricot, which grows only in Daouria, produces a sourish fruit; the wild cherry grows in every part of the country, but the garden cherry tree becomes languid even in the neighbourhood of Ischim. During their short summer these wild countries are adorned with a considerable number of beautiful flowers, each region possessing some peculiar to itself. The true rhubarb has been sought for in vain. In western Siberia, cultivated grains generally disappear about the 60th parallel, though even there, on the banks of the Obi, Mr. Erman learned that wheat and barley produce forty fold on the fertile soil which is inundated by the river; and still farther north, at Beresov, 63° N. lat., the cultivation of barley and rye has been tried with success. In eastern Siberia grain has been found not to ripen at 55° , nor in Kamtschatka at 51° . The mountains on the southern frontier are too cold and too dry; so that three-fifths of Siberia are scarcely susceptible of any sort of culture; but the south-western parts possess remarkable fertility. In the north of Kolhyvan barley gives a return of twelve, and oats of twenty fold. Buck wheat is apt to shoot in this black and light soil; but when sown in thinner soil it gives a return of from twelve to twenty fold. The greater part of the cerealia known in Europe grow also in the south of Siberia; but only the winter rye, barley, and oats, are cultivated. The Tartars, who are fond of white bread, have great difficulty in rearing a little wheat. In short, beyond the 60th parallel of latitude, with the exception already mentioned, and the 112th meridian, the cerealia do not succeed. In the north they are destroyed by the cold; and on the east the fogs prevent them from ripening. The culture of potatoes now supplies their place to a considerable extent. Common flax grows in several parts of the Urals. The *linum perenne* reaches to 66° ; hemp only to 55° . At the foot of the Altai mountains some Tartars make thread and cloth from two species of nettles, the *urtica discu*, and *cannabina*. Hops are produced in great abundance.

ANIMALS.—Siberia scarcely exhibits a single genus of birds or quadrupeds which is not common to with Europe. Wild rein-deer roam in herds near the shores of the Arctic Ocean, and, when domesticated, form the wealth of the desert tribes; but they come down to a lower latitude than in Europe. Herds of them have been seen on the mountain border of Mongolia, near the sources of the Onou, between lat. 49° and 50° ; and thus the countries of the rein-deer and the camel, which in the western parts of the old world are separated by an interval of 20° or 30° , here touch each other, or perhaps are intermixed. A Samoiede is reckoned rich who possesses 150 rein-deer; some Tongoeses have as many as a thousand; a Koriak, several thousands; and we are told that among the Tshueshes there are men who own as many as 50,000! The Siberian dog, resembling the wolf, is in some measure the companion of the rein-deer. He serves as an animal of draught, not only among the Kamtschatdales, but also among the Tungoeses, the Samoiedes, and the Ostiaks. He is swift and agile, but wild and difficult to guide. The Tartars of western Siberia have carried along with them in their migration the favourite animal of their nation, the horse. The greater part of the Siberian horses are white. The sheep of the nomadic tribes are of the broad-tailed kind. The black cattle of Russia, when transported to Siberia, diminish in size, but improve in strength. In general the animals of central Asia extend more or less into the southern parts of Siberia. The camel not only comes to the country with caravans, but he lives in Daouria among the Russian Mongols. Next to North America and South Africa, Siberia is the most extensive hunting ground in the world; but, owing to the eagerness with which they have been pursued, the animals of the chase are now very much diminished in number, and are only to be found in the most remote districts. Sables, ermines, marmots, martins, and squirrels, are the principal animals hunted for their skins. The rock or ice fox (*canis lagopus*, or *latis*), whose colour in general is white, but sometimes bluish, inhabits the icy zone, Kamtschatka, and the eastern islands. The elk is diffused over great part of the country, but does not pass the latitude of 65° . It is hunted in March when the snow begins to melt. The tahia or wild horse is found in the steppe of Ischim, and in various parts of the mountain border; the koolan or wild ass, the jighetai, a sort of mule, the stag, the roebuck, the antelope, the argali or wild sheep, which extends from the Caucasus to Kamtschatka, some wild boars on the banks of the Irtish, the musk animal, though rare, and beavers in Kamtschatka. There are also various small animals worthy of notice, as the hare of Daouria (*Lepus tolai*), the hare of Mongolia, the mountain hare, which makes a regular provision of hay; moles, weasels, and several animals of the rat and mouse kind, among which we may mention the lamming, and the species called the *mus economicus*, and the *mus socialis*, which store up in their holes considerable quantities of onions and other esculent roots, which the Siberian diligently searches out, to apply them to his own use. Among the wild beasts the white bear is the most formidable; the brown bear is also common; the ounce, and a species of panther with long white hair, have been found in the south; the lynx and the glutton are natives of every part of the country, and even the tiger has appeared on the banks of the Lena, to the north of lake Baikal. Both natives and travellers are annoyed by insects; in summer the air is darkened with mosquitoes, and even the rein-deer are forced to take refuge from these tormentors in the wilds of the tundra. The houses are infested with bugs. The country abounds with winged game, as wild-ducks, geese,

swans, water-hens, woodcocks, and partridges; and in summer innumerable flocks of ducks and geese cover all the lakes and marshes of the tundra. The Greenland and other seals, and the morse abound in the Arctic ocean; and a particular kind of seal is also found in the Baikal. Herrings are caught in the rivers in vast quantities; and it is worthy of remark, the farther to the east this fish is caught, the larger is the individual, although they are all of the same species. The herrings are followed up the rivers by a species of smelt called the muksun. The Lena is visited by shoals of sturgeon, and the salmon omul is occasionally found in the rivers of the tundra. The *salmo nasus*, and the *salmo autumnalis*, ascend all the rivers which have stony beds, as the Ienisci, the Lena, and others to the east, but do not enter the Obi, which has a sliny and earthy bottom. But to compensate this deficiency, the Obi produces very large sparlings, numberless sturgeons, white salmon, pikes, eels, and eel-pouts. The fisheries on the east coast, and among the adjoining islands, are very rich, and remarkable. In the seas which wash these regions are numberless shoals or herds of whales, sea-bears, sea-wolves, manatis, and sea-otters. Besides these living animals, numerous remains of elephants, rhinoceroses, and other animals of the torrid zone, have been found along the banks of the Irith, the Obi, the Ienisci, the Lena, and even on the very shores of the Arctic Ocean. Bodies of these quadrupeds are found mixed with sea-shells, and bones which appear to be the skulls of the largest inhabitants of the ocean; they are met with along the river sides, and in beds of earth or ice, and seldom, if ever, in a pebbly stratum. The *Liakhof* or *Lachow* islands are composed entirely of sand and the bones of elephants, rhinoceroses, and mammoths or Siberian elephants, which are quite entire, even sometimes with the flesh and skin in good preservation. Naturalists are quite at a loss to account for the occurrence of these remains in so high latitudes.

MINES AND MINERALS.—Siberia is rich in mines of gold, silver, platina, copper, and iron. Red lead, or the chromate of lead is found in the mines of Beresov. Chrysolites, opals, beryls, lazulites, felspar, Jasper, tale, black porphyry, and other minerals occur in various places; and, there can be no doubt, that much mineral treasure yet remains to be discovered. The grand mining districts are in the northern part of the Urals, on both sides of the range, in the government of Perm. It is, however, on the Asiatic side of the mountains that the auriferous sands are found, which contain pieces of gold, platina, and chromate of iron united with platina. These metals are often found only a foot below the surface. The principal gold mines are those of Beresov, in the district of Iekaterinburg (56° 54' N. lat.) They were first worked for gold in 1754, but they did not rise to any importance till the time of Catherine II. The number of workmen employed is upwards of 3000. The ore is an iron pyrites, mixed with quartz, which contains gold; $\frac{3}{4}$ or 5 lbs. English are obtained from 1250 stone weight of the crude ore. About 45 miles N. by W. of Iekaterinburg are the gold mines of *Neriansk*, belonging to the Yakoklef family, which are managed and wrought by their serfs, who compose the great bulk of the population of the district, about 10,000 in number. Though the proprietors rarely visit their estates, they have a castle at Neviansk, which is richly furnished in the antique Dutch fashion of the days of Peter the Great; where they allow a liberal sum to their steward expressly for the entertainment of respectable travellers. The earliest mining works at Neviansk were constructed by a body of the unfortunate Swedes who were taken prisoners at the battle of Pultova, in 1709. The mines of *Tagilisk*, 70 miles N. by E. of Iekaterinburg, with seven others within a circuit of 30 miles, all belonging to the Demidoff family, are, like those of Neviansk, wholly managed by serfs, without any immediate or personal superintendence of the owners. The principal produce is iron, but the district yields also copper, gold, and platina. The magnitude of the works at Tagilisk corresponds with the boundless mineral treasures of the surrounding country; the roasting furnaces being large enough to contain at once 14,000 tons of ore. The value of the mineral veins possessed by the Demidoffs is much enhanced by the immense extent of forest included in their estates, and which are adequate to feed the blazing fires of their colossal furnaces for ages to come. On the territory belonging to their mines are 5000 square miles of fine forest, in which the trees stand so close together that the woodman has scarcely room to wield his axe! In quantity, as well as in financial importance, the iron undoubtedly far surpasses the other metallic produce of the country. There is annually produced the enormous quantity of 132,000 tons of metal, of which four-sevenths are consumed in European Russia, two-sevenths in Asiatic Russia, and one-seventh is exported to the south and the south-west. The iron ore near the surface is spread over so wide an extent, that it is calculated many ages must roll over before it be exhausted: the hill of Blagodot alone, which rises from the plain near Kuschiva or Koushva 38° 17' 30" N. lat., 69° 18' E. long.) to the height of 1531 feet above the level of the sea, is entirely composed of magnetic iron ore, forming a mass much larger than would be consumed in a century at the present rate of production. The Uralian copper mines yield about 3500 tons of metal yearly. The gross value of the platina and gold found in the Urals nearly equals that of the iron; and the total annual production of that celebrated region may be valued at £1,500,000 sterling. Silver is rarely found in a native state, but is often mixed with gold, and in one of the Daourian mountains with lead. Corneous silver ore (*argentum muretum*) is found at *Schlingenberg* (called by the Russians *Zmei-avskaya-gord*, in the Little Altai mountains, and in the district of *Senipulatnoi*), where sulphuret of antimony and silver, and arsenical ore, and copper pyrites, also abound. In Iaouria, south-east of Lake Baikal, are the numerous silver mines of Nertschinsk, opened in 1701. The ore is rich in lead, and contains a little silver, which is easily extracted. Besides the copper mines in the Urals, there are some in the Altai. The richest mines are on the Siberian side, at Turia-Wasiliewskoi, Trolewskoi, and Ologowskoi; and are found at the limit which separates the schistous rocks from the pure lime-stone. The copper of Siberia is exceedingly ductile. The prevailing ores in the mines last mentioned are the red oxide and the blue carbonate. Malachite or stalagmite copper is also found here in the greatest perfection. The iron mines diffused over Siberia (besides those of the Urals) are little worked. The peasantry smelt iron in the neighbourhood of Krasnoyarsk and Ieniseisk; but at Nertschinsk and Kolyvan the other more valued metals are so productive that iron is despised. In 1749 a mass of native iron was found, between Abakansk and karaoolnoi Ostrog, near the upper Ienisei, weighing 1650 lbs., which, according to a tradition of the natives, had fallen from the atmosphere. Asbestos is also produced abundantly in the Urals and in other places; and on the eastern coasts there is found a soft and almost fluid clay, called lithomarge or rock marrow, which the Tongouses eat by itself, or with milk, without inconvenience. Throughout Siberia there is found on the aluminous schistons an efflorescence called "rock butter," which is used by the people as a remedy for diarrheas and the venereal disease. Diamonds have lately been found, but in small quantities.

PEOPLE.—The Russians are of course the dominant people; but they, with the Cossacks, and other colonists from Europe, inhabit chiefly the towns and the military stations. Some of them are descendants of the soldiers employed in the conquest, or in keeping the country in subjection; others are criminals sent thither for banishment, with their descendants. To these two classes must be added adventurers, peasant deserters, and ruined merchants, who seek here the means of repairing their fortunes. The higher officers of government are a very fleeting class of the community; all of them, whether civil or military, who volunteer to serve in Siberia, are entitled to promotion by three years' service beyond the Irith; many seek professional advancement by this voluntary exile, but few prolong their stay beyond the time required. The advancement, however, of civilization in Siberia of late years, and the greater advantages which it now holds out to settlers, have induced many people of a better description than those who used formerly to visit it, to take up their permanent abode in

the principal towns, and in the more fertile and agreeable districts of the country. Little more than a century ago the Siberians were considered so savage a race, that Peter the Great believed he could not inflict a severer punishment on his enemies the Swedes, than to send them to Siberia. The consequence was, that these honourable exiles introduced into the country some of the customs and manufactures of Europe; and while employed in ameliorating their own situation, civilized the people among whom they had been forced to settle. More lately, the governors, with civil and military officers, have introduced into the principal towns the manners of St. Petersburg, accompanied with all the Russian vanity and ostentation. But this refinement has scarcely yet extended to the small towns and villages scattered over the vast wilderness; though even there, in the most remote stations, respectable travellers are received with the greatest hospitality, and treated with the most cordial kindness. Some of the settlers, though rich in flocks and herds, scarcely know the use of money, and lead a life purely patriarchal. The hunters, however, that roam over the deserts, are not much removed from savages. They sleep on the frozen ground; quench their thirst with wild berries; and even drink the blood of their victims. The Cossack who, at Tobolsk, or Irkutsk, finds himself confounded with the populace, becomes a sort of monarch when sent among the Samoiedes or the Yookaghirs, to collect their tribute and maintain order. Some Cossack families have obtained the rank of dvorianin, or patrician nobles. The garrisons of the posts and stations along the frontiers are mostly composed of Cossacks, who are everywhere the most active and useful servants of the government. The merchants of Siberia used to be chiefly itinerant, going from town to town, and from market to market. Of the exiles, those condemned for political offences, and who belong to the upper classes of society, are usually sent to towns far to the north or the east, where, from their strong nationality and confirmed habits, they are unable to accommodate themselves to the rude and simple manners of the country, and consequently lead a miserable existence. The difficulty of keeping horses, or of using them in a country of snows and morasses, is a frequent ground of complaint. The exiles (or unfortunates, as they are compassionately styled) residing in Tobolsk, are chiefly persons convicted of embezzlement, or other acts of dishonesty. They are in general free from all kind of restraint, but some of them are bound to perform certain religious penances in the churches; and many submit to the same punishment voluntarily. Offenders of the worst class are often condemned to hard labour in the mines of Nerzhinsk for one year or more, and after having completed the period of their severe punishment, are allowed to reside in Tobolsk; but, generally speaking, the Siberian exiles of the labouring classes are in the situation of settlers enjoying full liberty to make the most of their industry. Their exile puts an end to their vassalage (for the greater part of them are originally serfs), and raises them to the rank of independent men. To this grand change in their condition, and the moral sense to which it gives birth, must be chiefly ascribed the revolution which takes place in their character. In this, their new country, the unfortunates of this class turn out for the most part exemplary men, and rarely fail to procure by their exertions a comfortable independence. To most of the settlers the long winter proves a period of relaxation from labour. The Russian works for one-half of the year with matchless energy, to make himself comfortable during the other; and when the time of rest arrives, he sits down with a keen appetite to feast on his hoarded stores. The exiles are to be found everywhere comfortably lodged, and in the midst of abundance, which they always feel a pleasure in sharing with the stranger.

Numerous Tartar colonies occupy the southern part of the government of Tobolsk. Those farthest east are the Biriusses, the Katshini or Katshinians, and the Beltires; three tribes which, more or less mixed with Mongolian blood, live in the neighbourhood of the Abakan, an affluent of the Ienis-ii. The Katshinians are rich in cattle; and their beardless visages shew them to be of Mongol lineage. In the south the Sayanians, who have some resemblance to the Mandchews, occupy the Sayanian mountains. A tribe of Teleootes or Telengutes, live in the neighbourhood of Kutznesk; but the greater part of them are found in the Kalmuck country. The Russians call them white Kalmucks; their language is half Mongolian. The Toms and the Tchulim Tartars inhabit a part of the banks of those rivers. In the Baraba steppe are the Barabinitis, a nomadic people, some of whom are Mahometans, and the rest Pagans. The Tartars of the Obi live along the left bank of that river as far as Narym. The Tartars of the Tobol are found on both banks of that river, from the frontier to its mouth. The Taraliens, in the district of Tara, speak the same language as the last. The Turalinzi or Turalinians, the most civilized of all the Tartars of Siberia, inhabit the towns and villages on the banks of the Tara, from the mountains to the Tobol. They were forcibly baptized in the river by Philoppei, a nobleman or ecclesiastical dignitary, assisted by a body of Cossacks. The Tartars are generally of a robust and vigorous constitution. Their simple mode of life, their frugality and cleanliness, protect them from most of the malignant and contagious diseases, with the exception of the small-pox, which has at times made terrible ravages among them; and the precepts of the Koran protect the Moslem portion of them from the consequences of the drunkenness to which their Russian neighbours are too much addicted.

Tribes of true Mongol descent occupy the country about Kiakhia and Selinginsk, but are few in number. The Booriates or Barga-Buratt, a great Mongolian race, have peopled almost the whole provinces of Irkutsk and Nerzhinsk. In external appearance they resemble the Kalmucks; but there is a greater proportion of fat people among them; they have still less hair; and many of them have no beard whatever. Their complexion is pale and yellow; they are very deficient in bodily strength; a Russian of the same age and size as a Booriate is a match for several of them in wrestling. They enjoy, however, good health, though they seldom reach an advanced age. The small-pox, once very destructive to this tribe, has been arrested in its ravages by the establishment of an institution for inoculation at Irkutsk. The itch is very prevalent, being greatly promoted by their manner of living and clothing. Those to the east of the Baikal make use of warm baths in chronic diseases. Their physicians are shamans, or sorcerers, who attempt to cure them by sacrifices, talismans, and incantations, rather than by natural remedies. They speak a very rude dialect of Mongolian, which is rendered unintelligible to strangers by frequent transpositions and changes of consonants. Those Booriates who live north-west of the Baikal are Shamanists, those to the south-east are Buddhists. Some of them cultivate the ground; but the far greater number live on the produce of their cattle; they have numerous herds of horses, heaves, and sheep; also a few camels, which in winter are covered with blankets. Their chief wealth consists in horses. The number able to bear arms is 73,000. They are governed by native chiefs, called *taishas*.

Tongoses.—This people call themselves *Æræn*; the Chinese call them *Solon*, and the Yookaghirs *Erpegghi*. They have a common origin with the Mandchews; and are distinguished by their regular conformation. They are usually of middle size, slender, and well made. Their face is less flattened than that of the Kalmucks; they have small and lively eyes, a well proportioned nose, a thin beard, black hair, and an agreeable expression. They are subject to few diseases, yet they seldom attain old age, a circumstance which is owing to the rigorous and unwholesome climate, and their laborious and dangerous mode of life. The priests or shamans are their physicians. Their sight and hearing are incredibly acute; they are not only well acquainted with every tree and rock within their district, but can point out with certainty a road of a hundred miles, by describing the stones and trees which occur in it; and they follow their game by the slightest tracks left on the grass or the moss. Their other senses, however, are less acute. Their religion is a branch of Shamanism; their chief god is called *Boa*. They practise polygamy. Their princes are called *taisha*, a word which appears to be

of Mongolian origin. Their language is a dialect of the Manchew, with a mixture of Mongolian words, chiefly such as relate to objects of civilized life; and has eight or ten dialects. The Tongooes occupy no less than a third part of Siberia, extending from the Ienisei to the sea of Okhotsk, on the south-east, and to the Lena on the north-east. Those on the Lena, who are called *Olenians*, live by the produce of their rein-deer, and by fishing and hunting; those who occupy the coast of the eastern sea are called *Lamules* or shoremen (from *lama*, the sea), and border with the Koriaks.

Finns.—Tribes of this race are found along the base of the northern Urals, and on the lower Obi. The *Woguls*, who live between the Tobol, the Beresov, the Obi, and the Urals, are under the middling stature; with generally black hair, and little beard. Their principal occupation is the chase, in which they display singular agility and address, managing with equal dexterity the musket and the dart. They also excel in laying all sorts of toils for deer. They call themselves *Manni*, and have a very mixed language. They are nomadic; but, apparently with a view to spare the game, they change their dwellings less often than many tribes of Eastern Siberia. They never join more than five yurts or huts, in one station; and to prevent the wild animals from being frightened away by the smoke, these stations are not allowed to be fixed nearer each other than ten miles. Rein-deer constitute their whole stock; and even in summer these animals are yoked in sledges to cross the level country; but the winter is almost exclusively their season of labour, of travelling, and of collecting their booty. It is then that they are busily occupied in the chase of the fur-animals, and in the trade arising out of it with the Samoiedes, the Ostiaks, and the Russians. Their annual migrations, or trading excursions eastward, are very remarkable; for the European Samoiedes travel in winter across the Ural, and while their eastern neighbours and the Woguls, who dwell to the south of their route, all move in the same direction, they often drive 400 miles, as far as Obdorsk, to barter, in February, the produce of the chase for Russian bread. The Woguls, during summer, give themselves up to lazy repose, and, as the smoke protects them from the flies, they scarcely ever leave their tents at that season; in short, they seem to fall into a summer sleep, retaining just sufficient life to enable them to digest their winter feasts. The *Ostiaks* of the Obi, who are likewise of Finnish extraction, hold the whole extent of country from the Togurian district of the circle of Tomsky (in 58° north lat. and 83° 20' east long.) to Obdorsk, and from about 100 miles north of that fort to about 660 miles south of it. In summer and at the beginning of spring they inhabit temporary dwellings, which they call *jurtes*, on the banks of the large rivers; but in winter they retire to the forests, where they have permanent *jurtes* in the neighbourhood of water. Their settlements are met with at intervals of from 6 to 24 miles, and contain from four to twenty *jurtes*, placed within 320 feet of each other, and built wholly of cedar-wood, although many other kinds of trees, as the birch, pine, fir, spruce-fir, and larch, are to be had in abundance. They are a small and feeble race, of mild manners, and unmeaning physiognomy; and have hair generally of a reddish, or light yellow cast. They wear a tight dress made of fish skins or furs. Nothing is more disgusting than their appearance and manner of living; and yet they enjoy good health. They generally die of scorbutic, nervous, or other chronic diseases. Their property consists wholly of rein-deer, and the possession of from 200 to 500 of those animals is considered as indicating affluence. Their name is said to be a Russian corruption of the Tartar word *Ustiak*, signifying wild or ignorant men. The northern Ostiaks call themselves *Kondicho*, from the name of the river Konda, and the word *cho*, a man. The Ostiaks of the south call themselves *Afjakas* after their river Jake. Historians have traced the descent of this people to the Finns, but there is a broad distinction between the two nations in their physical and moral conditions, and particularly in their languages. The Ostiak tongue is said to have no affinity with any European or Asiatic language (which can hardly be the case unless they be autochthones), and is so poor in words, that those who hold much intercourse with the Russians, borrow from them, and adopt new expressions for such ideas as they cannot render into their own dialect. The Russo-Greek form of Christianity was introduced among the southern Ostiaks about the year 1652, but their mode of life makes them very remiss in the observance of religious ordinances; and, what is worse, they have become addicted to the vice of inordinate drinking. The northern Ostiaks are still pagans, though they practise baptism, as well as their more enlightened brethren, and give their children Russian names; the women veil themselves in the presence of strangers. Their general employments are hunting and fishing, and many of them live in a kind of simple affluence. The Ostiak yokes but two dogs to his sledge, unlike the natives farther east, who drive five or six pairs in a train. The bear enjoys among them a kind of religious veneration. They offer sacrifices before setting out to hunt this formidable animal; and, after having killed one, they celebrate his memory by an expiatory fete, and by songs addressed to his manes.

The *Samoiedes* occupy an immense extent of moss-covered marshy territory, which stretches along the coast of the Arctic Ocean from the river Mesen near Arkhangel, to the Khatunca, upwards of 2000 miles in length, and from 270 to 550 in breadth. Their ordinary stature is from four to five feet; they are generally broad, with very short legs, a large and flat head, a flat nose, the lower part of the face projecting, a wide mouth, large ears, a very scanty beard, and small, black, angular eyes. To these attractions they add an olive coloured skin, shining with grease, and black and bristly hair, which, though it is small in quantity, they arrange with great care. The women have an agreeable shape and mild features, and arrive very early at puberty. The girls are generally marriageable at eleven or twelve, but they have few children, and cease bearing before thirty. The women are considered as impure beings, and are obliged to perfume themselves before passing the threshold of the cabin. The Samoiedes are nomadic, and move frequently from place to place. They have much in common with the Ostiaks, but maintain a better character, and are less addicted to drinking. Their wants are very limited; hunting is their chief employment; and their wealth consists in rein-deer, the poorest Samoiede possesses a hundred, while the rich man's herd often amounts to 10,000. They all quit the seashore in winter, when the ice sets in, and wander with their herds to the mossy hills of the interior. They are gross idolaters, their only worship being a species of fetishism. Their magicians are adroit jugglers; but, in supporting their assumed character of inspired persons, many of them become really frantic. Their amusements consist in dances, in which they keep time to a nasal sort of song. They are divided into different tribes, of which the *Obdoriaks* and the *Jooraks* are the most remarkable. They have a peculiar language, apparently unmixed with any other. It is believed that the whole Samoiede race have moved down the course of the Ienisei; for there are still found in the country which stretches from the upper Ienisei and the Abakan, to the west end of lake Baikal, some small tribes which use dialects containing a great mixture of Samoiede words, or even belonging entirely to that language. Such are the *Soyetes*, who are said to be numerous in Chinese Mongolia; the *Kaibales*, who leave the dead bodies of their children exposed on the trees, and who dispute with the mountain hare the heaps of hay provided by that intelligent animal; the *Matores*, the *Karagassas*, the *Kamachinkes*, and the *Ostiaks* of Naryn. It might appear natural to consider the Ostiaks of the Ienisei or of Pumpokol as a link of the chain; but it appears that this tribe of hunters has formed for themselves a peculiar jargon which defies the researches of historians.

The *Yakuts* inhabit the lower basin of the Lena from the neighbourhood of Yakutsk to the ocean, and appear to be degenerated Tartars, who have fled before the conquering Mongols. They call themselves *Socha*, in the plural *Sochalar*; and there is still among the Tartars of Krasnoyarsk a tribe which bears the same name. The Yakuts wear long hair, and short and open dresses. In want of attention to cleanliness they yield to none of their neighbours; and in their general habits of life they very much resemble the Tongooes, though they are considered to be less daring and active. They

are exceedingly superstitious; they reckon thirteen kinds of evil spirits, with the dread of which they are perpetually haunted; and the influence of their magicians is therefore unbounded. They have made considerable progress in cultivating the ground; and have introduced the rearing of cattle and horses, and have attained, not merely a scanty subsistence, but even some degree of comfort. They are now all baptised. But though they are properly a pastoral people, whose chief riches consist in the number of their horses and bees; yet the abundance of fur-clad animals in their vast forests, and the profit which they make by selling them to the Russians, have induced them to turn much of their attention to the chase, of which many of them are passionately fond, and which they follow with unwearied ardour and admirable skill. The *Yookaghirs* inhabit the country between the Iana and the Kolyma; but geographers are in doubt whether to number them among the Samoides or the Yakuts, or among the tribes still to be enumerated. They live by the chase and the produce of their rein-deer, and are all baptised. They were formerly a warlike and formidable people; and the Russians found great difficulty in subjugating them. They are now all but extinct as a pure race, those who now bear the name being much mixed with Russian blood.

The *Chuckchee* or *Tschuktsch* possess the north-eastern extremity of Siberia, from the river Tshann to Behring's Straits. They generally live in small camps near the rivers; their dwellings are dirty and their food disgusting. The dress of the women consists of a deer's skin hung from the neck, so that by untying a single knot, they are made completely naked. The *Chuckchee* have large features, but have not the flat nose and small eyes of the *Kamtschatdales*. They are expert slingers, and display much courage and address in whale fishing, which they conduct in the European manner, without having received instructions from that quarter. They still preserve their independence, but live on good terms with the Russians, and meet them for purposes of traffic at the annual fair of *Ostronaya* in February, where they exhibit a great degree of adroit management. The staple article which they purchase seems to be tobacco, in return for which they give morse-teeth, and various skins and furs. They are a bold and fearless race, extremely jealous of Russian traders and emissaries, and far from unintelligent. The *Shelagi*, near Skelatskoi-noss, the *Ashushalat*, and the *Peyeskoli*, on the islands of the Frozen Sea, who are little known, belong to the *Chuckchee* family. The *Chuckchee* are, however, in many respects a peculiar race, and are very little known. A great number of them have been baptised, but they remain as completely heathen as before, without the slightest notion of the doctrines or the spirit of Christianity. Their inducement to present themselves for baptism is solely to obtain the presents which are made to them on the occasion. They formerly all lived on the produce of their rein-deer; but those among them who happened to lose their herds by sickness or other causes, settled by degrees on the coast, and employed themselves in killing whales, seals, and walrus. They are now divided into two classes, the settled *Chuckchee*, who live on the coast, and the nomadic *Chuckchee*, who inhabit the hills. The latter, who form the bulk of the people, call themselves *Tennygik*. The two classes live on good terms with each other, and exchange their different commodities. The inhabitants of the coast furnish the nomades with whale flesh and bones, walrus skin, and train oil, which is a favourite article of food, and receive in return rein-deer skins, both raw and made up into clothing. The coast of the bay of Anadir is inhabited by a people very distinct from the *Chuckchees* in figure, features, clothing, and language. They are called *Oukilou* (sea people), and are said to have formerly occupied the whole coast from Cape Scheatskoi to Behring's Straits; and every where along this tract are the remains of huts, constructed of earth and whale bones, quite different from those of the *Chuckchee*. Captain Billings thinks that their language has a close affinity to that of the Aleutians of Kodiak, who are of the same stock as the Greenlanders or Esquimaux. They pass Behring's Straits in baidours or boats formed of skins; but the thick fogs and frequent storms render the passage dangerous in such frail vessels, and they therefore usually stop at the Gwosdow islands.

The *Koriaks* live near the rivers Anadir and Olutoria, between Kamtschatka and the country of the *Chuckchee*; who live by hunting, and the produce of the rein-deer. The *Olutorzi* speak a smooth language; but, in general, the idiom of the *Koriaks* approaches to both the *Chuckchee* and the *Kamtschatdale*.

The *Bashkirs* or *Bashkurs* are found in the provinces of Orenburg, of which the greater part belongs to them, and Perm, on the south-western borders of Siberia, speak a Tartar dialect, and are Soonee Mahometans; but it is difficult to trace their origin. They seem to form an intermediate link between the Finns and the Turks; their customs and habits are of Tartar origin, except the dress of the women, which is evidently Finnish. They have no longer any military chieftains; and have, for nearly a century, been good subjects of Russia. In disposition they are faithful, docile, and ready to oblige; and the traveller may pass through their country as safely as through any part of Europe. By an imperial ukase issued in 1832, they have been declared the owners of the gold mines on the east side of the Urals, on payment of one-tenth of the produce to the crown. Most of them subsist by rearing cattle, and a few by agriculture. They pass the winter in villages, living in clean wooden cabins; but in summer they are all abroad in the open country, and live under tents of felt. They may almost be said to live on horseback; but unwearied and skilful in all that pertains to horsemanship, they are dull and lazy in everything else; yet they are very expert falconers; they teach their small falcons to pounce on hares, while a larger kind, called *berkuti*, are trained to kill foxes, and even wolves. These birds they rear and train in considerable numbers, not only for their own use, but for the purpose of selling them to the Kirghiz, and other wandering tribes of the steppes. They are divided into 12 cantons, subdivided into tribes or clans, *jurtas*, and villages. They pay no taxes, but are bound to provide post-horses, supply men for the frontier cordons, and hold themselves ready for any foreign service. They are, however, but indifferent soldiers. They cherish an inveterate hatred against the Cossacks, whom they excel both in courage and muscular power. Their principal weapon is the bow, in the use of which they are very expert, but fire-arms are rarely found among them.

INDUSTRY AND COMMERCE.—Besides the agricultural labours which are carried on in places suitable for the produce of grain, with the hunting and fishing, and rearing of horses and cattle, that form the chief occupations of the native tribes, the industry of the Russian settlers is principally directed to the working of the mines of the Urals, Kolyvan, and Nertshinsk, and the manufacturing of iron, copper, utensils of these metals, leather, shagreen, and carpets; arms, glass, salt, saltpetre, pitch, isinglass, and felts. The art of laccering has been brought to great perfection at Tagilisk, on the Urals, and the laccered wares are generally ornamented with paintings, the execution of which was for a long time wholly intrusted to such of the un instructed workmen as seemed to manifest a taste for drawing; but of late years the proprietors of the mines and iron works have sent sets into Europe to study the art of drawing and colouring. Some of these have even spent years in Italy, and afterwards returning to Tagilisk, have established schools of design for the benefit of their brethren. Among other branches of industry carried on at Iekaterinburg, is the cutting and engraving of precious stones. Amethysts, topazes, tourmalines, with quartz crystals of large size, are cut and polished with great skill; and are then inelegantly, though ponderously, set in the gold of the country. Besides the great abundance of gems found in the neighbourhood, many are brought from all parts of Siberia; and the trade of the lapidary is here carried on in the most extensive manner possible.

Tobolsk is the centre of Siberian commerce. The produce of the mines, fisheries, and hunting expeditions, and the rude articles supplied by the native tribes, as furs, peltry, mammoth bones, morse teeth, dried and salt fish, are here met with and exchanged for European and Chinese goods

and manufactured articles, woollen and cotton cloths, silk stuffs and the like; most of which, however, are drawn from China, the preference being partly due to their cheapness, and partly to the skill with which the vigilant Chinese merchant adapts his commodities to the wants of the country. Tea, likewise porcelain, silk, musk, and rhubarb, are imported by them to a considerable extent. A great trade is also carried on at the annual fair of Irbit, 100 miles N.E. of Iekaterinburg, which is the best frequented and the most important of all Siberia. The commerce eastward of Tobolsk is carried on through Kiakhta, Irkutsk, and several other intervening towns; the whole distance between Tobolsk and Kiakhta, with the exception of about 60 miles, being navigable by the branches of the Angara, the Ienisei, and the Obi; and although the route is exceedingly circuitous and tedious, amounting to no less than 8000 miles, the profits of the trade carried on with the Siberian tribes on the banks of the streams are considered a sufficient compensation for the time and trouble spent on the journey. From the south the merchants of Turkestan bring silk and cotton stuffs, precious stones, and other articles. Formerly caravans of some thousands of camels used to arrive annually at Omsk, Petropaulovski, Orenburg, and other frontier towns of western Siberia. But at present the dried fruits of Bokhara, the rich shawls, raw cotton, and other produce of the southern countries, are carried direct to Nishnei-Novgorod, in European Russia. Still, however, small caravans occasionally travel southwards from the Siberian frontier, taking with them otter and seal skins, linen, and bar-iron. The merchants, who are chiefly Tartars, though a Russian sometimes ventures to accompany them, assemble at Semiyarsk on the Irtysh, about 600 miles S.E. of Tobolsk, and usually start in May, while the pools and streams in the desert are not yet completely dried up. The place to which they direct their journey is Tashkend in Turkestan, at a distance of two months travelling from Semiyarsk; the first 200 miles being over a wild and hilly country, across the Karakalumi mountains, which are thickly covered with forests of firs, willows, and black poplars, and infested by bears and wild boars; after leaving which they pass through a woodless country till they reach Tashkend. To the north, again, Otdorsk, 50 miles from the mouth of the Obi, is a point of the greatest importance to the Russian fur traders, and is the centre of the commerce carried on with all the tribes who possess the country from Arkhangel to the Ienisei. The traders begin to assemble in December, but the active traffic, or the fair, does not take place till February, when the yasak, or tribute of skins, is paid by the Ostiaks of Beresov. Besides other useful articles, great quantities of meat and baked bread are sent northward by private traders from Tomsk and Tobolsk, besides what is despatched on account of government, all of which serves as money in the traffic with the Ostiaks and Samoyeds, who are very fond of such luxuries. Petropaulovski, in Kamtschatka, is the principal port on the Pacific Ocean, but its trade is monopolised by the Russian American Company, who have also factories, or counting houses, at Moscow, Irkutsk, Yakutsk, Okhotsk, Kazan, Tomsk, and other places. Peltry forms the principal article of the trade.

DIVISIONS.—Siberia is divided into two great regions, called Eastern and Western Siberia, which are placed under the charge of governors-general, who reside respectively at Irkutsk and Tobolsk. Western Siberia includes the subordinate governments of Tobolsk and Tomsk, and the province of Omsk; Eastern Siberia includes the governments of Irkutsk and Ieniseisk, the province of Yakutsk, and the districts of Okhotsk and Kamtschatka. To these we must add those parts of the governments of Perm and Orenburg which lie to the east of the Urals, and also the country of the Chuckchee, who are independent. These divisions, with their principal towns, are exhibited in the following table:—

*Provinces.**Towns.***I. WESTERN SIBERIA.**

TOBOLSK,	. . . Tobolsk, Tumen, Tûrinsk, Ialûtorûsk, Tara, Kûrgan, Ishim, Sûrgût, Beresov, Pelym, Oblorsk.
TOMSK,	. . . Tomsk, Kaïnsk, Smeïnogorsk or Schlangenberg, Barnoul, Kolhyvan, Tomskoi-Savod, Riddersk, Sousûnsk, Bisk, Narym, Kûznetsk.
OMSK,	. . . Omsk; Petropaulovsk, the principal fortress of the line of Ischim, and containing an important custom-house; Semipalatinsk, Ustkaïmenogorsk, Semiyarsk.

II. EASTERN SIBERIA.

IRKUTSK,	. . . Irkutsk, Selîngin-sk, Kiakhta, Nijnei-Udinsk, Wertshinsk, Nertshinskoi-Savod, Troïtskosarsk, Karensk, Balagansk, Bargousin, Vershnei-Udinsk.
IENISEISK,	. . . Krasnoyarsk, Kansk, Abakansk, Atshinsk, Ieniseisk, Tûrukansk, Minûssinsk, Khantanskoi.
YAKUTSK,	. . . Yakutsk, Vilûisk, Olekminsk, Olensk, Oustie-Olenskeïe, Verskhoiansk, Vitimskoi, Sredne-Kolymsk, Nishnei-Kolymsk, Zachiversk, Jigansk, Oudskoi.
OKHOTSK,	. . . Okhotsk, Ijikhinsk, Kamanoi-ostrog.
KAMTSCHATKA,	Petropaulovski, Versnê-Kamtschatsk, Nijnê-Kamtschatsk, Aklansk, Bolsherteskoi, Tiglsk.
PERM,	. . . Iekaterinburg, Neviansk, Verkhoturina, Irbit, Tagilisk, Bogoslovsk, Kûshva.
ORENBURG,	. . . Troïtsk, Tsheliabinsk, Verkhio-uralsk.

TOBOLSK, formerly the capital of all Siberia, is situate on the right bank of the Irtysh, near its confluence with the Tobol, in N. lat. $58^{\circ} 12'$, and E. long. $68^{\circ} 15'$. It is divided into the lower and the upper town, the former of which stands on the banks of the river, and is much exposed to floods; the latter occupies the top of a steep ridge which rises considerably above the plains, and consequently the white houses and the church towers are visible at a great distance. The lower town is only 128 the upper 357 feet above the level of the Arctic Ocean. Except the government buildings and two churches, the town is built wholly of wood, and even the streets are paved with that material. Its population in 1833 amounted to 17,558, of whom a considerable number are exiles, who live here not uncomfortably. The variety and abundance of wild fowls in its markets are no where else to be equalled; while the fisheries of the Obi on the one side and the herds and flocks of the pastoral tribes on the other, yield their respective supplies at the cheapest rate. It is also well supplied with manufactured goods of every kind, and with tea, and colonial produce from Europe and China. Literature, science, and the polite amusements of Europe, have also made considerable progress among the citizens, and contribute greatly to their amusement as well as instruction. The inhabitants endeavour also to heighten the graces of the West by a mixture of Siberian merriment, the quadrille and the gallopade being accompanied by singing, while the ladies display at once their figures and their voices. Every pretext, religious or social, is seized on for a feast, a ceremony, or a public show. Marriage gives occasion to four ceremonies; first comes "the meeting;" then "the near inspection;" afterwards "the shaking of hands;" and lastly, "the maiden's feast," which completes the nuptial rites. **Tumen**, 130 miles W.S.W. of Tobolsk, is a town of 8000 inhabitants, which enjoys a considerable trade. **Beresov**, 420 miles N. of Tobolsk in a direct line, or 600 by route, is a fur trading settlement of great importance, inhabited by several respectable merchants and exiles. It stands at a little distance from the left bank of the Obi, on its affluent the Sosva; and no other place can vie with it in the active, enterprising, and kindly spirit of its people. Its situation is very pleasant, and it contains a population of 1500, most of whom subsist by trade. It is historically important, as being the place where the three favourites of Peter the Great, Osterman, Dolgorukof, and Menzikoff, ended their

days in exile. In 1821, the remains of Menzikoff were found buried deep in the frozen earth, in a state of perfect preservation. *Obdorsk*, a paltry wooden town, 50 miles from the mouth of the Obi, is, nevertheless, the centre of all the trade carried on with the Sameiodes and the Ostiaks of Beresov. From Tobolsk to Beresov the river is easily navigated downwards in eight days by the current alone; upwards, the navigation is favoured by the prevalent north winds, and by the counter currents near the banks.

Tomsk, 630 miles E. by S. of Tobolsk, a city with 10,577 inhabitants, and the capital of a province, though it contains several churches and many handsome buildings, both public and private, is, nevertheless, a miserable place. It stands on the right bank of the Tom, near its mouth, has a military school with 400 students, a provincial college with a considerable revenue, but without either masters or scholars, and also a very neat public garden. *Barnoul*, 260 miles S. by W. of Tomsk, contains 1200 houses, with 9000 inhabitants, and is the seat of administration for the whole of the mines of the Kolyvan line, the governor being solely dependent upon the imperial Cabinet. It is also the chief smelting place, and enjoys the civilization of a European city. The mining district subject to the authorities at Barnoul extends southwards about 300 miles towards the Irtysh and the frontiers of Chinese Tartary. The silver mines of the *Schlungenberg* (Snakehill) are situate 180 miles to the south of Barnoul. As the country rises to the south its climate does not grow milder in that direction, but the winters are at least as severe, and the summers as short as they are some hundred miles farther north. The hills are in general but thinly wooded; and, on that account, notwithstanding the difficulties arising from great distance and inadequate water conveyance, the ores have to be carried down to the smelting houses in the lowlands, chiefly to Barnoul. The wealth and population of this mining district increase rapidly to the south. The farmers and miners of the southern valleys, who have the opportunity of trading with the Chinese, wear silks and fine cloth with gold ornaments and jewellery; and in their houses and their mode of living, manifest a degree of opulence unknown to those of equal rank in Russia. *Kainsk*, nearly midway between Tomsk and Omsk, is a neat town in the centre of a low brushwood forest, and contains 600 houses and 2500 people.

Omsk, the capital of a province, is situate at the confluence of the Om with the Irtysh, 290 miles S.E. of Tobolsk, and 490 W. by S. of Tomsk. It is composed of a fortress, and a town with its suburbs, and has a garrison of 4000 men, with a flying artillery of forty pieces. The fortress is the largest of the three divisions, is a neat place, with buildings of brick, and surrounded by a mud wall and ditch. It contains an imperial military college for the children of the military who form the army of Siberia, also a school for the children of Cossacks. The town and suburbs contain some neat buildings, but are not otherwise remarkable. The total population in 1833, amounted to 11,423. *Semipalatinsk* is a fortress on the right bank of the Irtysh, 400 miles S.E. by S. of Omsk. The town stands on a pleasant eminence, commanding a view of the lofty mountains to the south, but the surrounding country is uncultivated and infested by robbers. It contains 1000 soldiers and 2000 civil inhabitants.

Irkutsk, the capital of Eastern Siberia, is situate on the left bank of the Angara, 1246 feet above the level of the sea, 24 miles N. from the lake Baikal, and 1500 E. by S. of Tobolsk, in lat. $52^{\circ} 16'$, and long. $103^{\circ} 30'$. It is the handsomest in external appearance, and the most elegant as to society of any place in Siberia. The houses are chiefly of wood; but the streets are wide and spacious; some of the public buildings are very fine, and among these there are twelve handsome churches. The population, by the census of 1833, amounted to 13,522. The principal inhabitants are merchants, and the civil and military officers of Government. Both classes being in constant communication with Europe, have introduced into this remote quarter, whatever is most recent in literature, as well as in music and the drama. A small library has been formed, and a collection or museum of natural history. The shops are filled with nankeens, porcelain, lackered ware, and other articles of Chinese workmanship. The Russian-American Company have a counting-house here and large magazines; and the town may even be regarded as the grand mart of the Russian commerce with China. It is also a bishop's see. The Angara is here deep and rapid, and the approach along its stream to the Baikal may be considered, says Captain Cochrane, one of the grandest sights in the world. The river gradually widens as it draws nearer the lake, till at length it forms a pretty inlet where vessels are laid up. *Selinginsk*, once an important place on the Selenga, is now much decayed, and contained, in 1821, only 200 houses and 1000 people, besides the garrison. *Vershnei-Udinsk*, a large, populous, and flourishing town on the right bank of the Selenga, 200 miles E. of Irkutsk, and 70 N.N.E. of Selinginsk, contains many handsome brick houses, churches, and public buildings, and has risen on the ruins of Selinginsk as the grand mart between Irkutsk and Kaikhta. It contains a strong garrison, 400 houses, and about 2600 inhabitants. *Kiakhta*, a neat and regularly built town of 450 houses and 4000 inhabitants, on the right bank of a little brook of its own name, an affluent of the Selenga, which forms the border of the Russian and the Chinese empires, about 200 miles S.E. of Irkutsk. It is the only place on this frontier, where the Chinese Government allows its subjects to trade with Russia; and the Chinese town of Maitmatshin, 200 fathoms from the old town of Kiakhta, is their frontier station. *Wertshinsk*, 500 miles E. of Vershnei-Udinsk, is called a city, but is ill-built, widely scattered, badly situate, and worse inhabited, containing about 200 houses and 1000 people. It is the head-quarters of the great penal settlement of Siberia, all the worst criminals being sent to work in the mines of this district. The majority of them are kept at the Bolshoy-zavod, or great fabric, 180 miles E. from the city, situate in a deep hollow, and surrounded by high and barren rocks, as bleak, dreary, and inhospitable as can be imagined.

Krasnoyarsk, the capital of the province of Ieniseisk, is situate on the left bank of the Ienisei, 300 miles N.W. of Irkutsk. *Atshinsk*, 90 miles west, is a thriving trading town.

Yakutsk or *Iakutsk*, is situate on the left bank of the Lena, 1200 miles N.E. of Irkutsk, in a bleak and dreary region, with a very cold climate. It is an irregularly-built town, but being the seat of the fur trade, and of a great commerce with the natives, it contains so many as 4000 inhabitants. *Iakutsk* has all the character of the cold and gloomy north. It is situate on a barren flat near the river; the streets are wide, but the houses and cottages are poor. There is not a tree or a bush to be seen, and nothing to indicate summer but the absence of snow. It contains about 500 houses, 5 churches, and a convent. *Yakutsk* is the centre of the inland trade of Eastern Siberia; furs, walrus and mammoth teeth, are brought to it for barter, during the ten weeks of summer, from the most distant places to the east and north; and as soon as the Lena is clear of ice, merchants begin to arrive from Irkutsk, bringing with them tobacco, tea, sugar, brandy, rum, Chinese cotton and silk stuffs, yarn, coarse cloth, hardware, glass, &c. The Russians live entirely by trade, and have abandoned all sorts of handicraft to the Yakuts, among whom there are now excellent carpenters, cabinetmakers, carvers in wood, and even painters.

Nishnei-Kolymsk stands on the eastern side of an island in the Kolyma, about 150 miles from the mouth of the river. It is a large town for this part of the world, containing nearly 50 houses and 400 people, most of whom are Cossacks, with a few pedlars and three priests.

Okhotsk, a small town with a harbour on the western side of the sea of Okhotsk, maintains a considerable trade with Kamtschatka and the Russian settlements in North America, the produce of which all passes through it, as the only sea-port of Siberia on the Pacific Ocean. *Petropaulovski* (pronounced Petropaulski), the capital of Kamtschatka, and the residence of the government and commercial agents, is a town of thatched log-houses, of very poor appearance. Its harbour is a safe land-locked bason, on the eastern side of Awatska Bay, capable of containing six or eight ships of the line in per-

feet security. *Awatska Bay* is 30 miles in circumference, with general depth of water of 12 or 14 fathoms on a level bottom of soft mud; and abounds with fish of the finest quality. Its entrance is four miles long and a mile and a half wide at the narrowest part, with a lighthouse on the south-east point, in lat. $52^{\circ} 52'$ N. lat., and $158^{\circ} 47'$ E. long.

Iekaterinburg or *Katherinenburg*, is situate on the eastern slope of the Urals, 25 miles east of the Bilim-bayevski pass, and 976 feet above the level of the sea, in the government of Perm. It contains about 2000 houses, chiefly built of wood, though some are of stone, and the great manufactories are of brick, roofed with thin iron plates. It contains the college of mines, which superintends all the foundries maintained by it on both sides of the Urals. The town presents, in a remarkable degree, the appearance of comfort and thriving industry. Many of its houses would be deemed ornamental in the most handsome towns of Europe; yet the greater number of its inhabitants are serfs, whose annual remittances of tribute to their owners amount to princely revenues. It is 320 miles W. by S. of Tobolsk. *Tyumen*, on the banks of the Tara, 180 miles from Iekaterinburg, is a larger town than the latter, and is situate in a fertile country.

SEAS, BAYS, AND GULFS.—*Sea of Kara*, on the east side of Nova Zembla. *Sea of Oli*, forming the mouth or estuary of that river, is about 400 miles long by 80 or 90 wide. *Behring's Straits* form the communication between the Arctic and the Pacific Oceans, separate Asia from America, and are about 50 miles wide, with a small island in the middle. A constant current sets through the straits from the Arctic into the Pacific Ocean. *Gulf of Anadir*, to the south-west of Behring's Straits. *Awatska Bay*, already described. *Sea of Okhotsk*, a large inland sea, between Kamtschatka and Okhotsk, is unnavigable in winter.

CAPES.—*Severo-Vostochni*, the most northerly point of the continent of Asia. *Shelutskoi-noss*, in the country of the Chuckchee, in long. 175° E. *Tschuktschi-noss* or *East Cape*, forming the western side of Behring's Straits, and being the most easterly point of Asia. *Cape Lopatka*, the most southerly point of Kamtschatka.

ISLANDS.—*Kotelnoi* or Kettle Island, *Fadei*, *Norai-Sibir*, *Stolbovoi*, *Iterchanksoy*, *Bear Islands*, and *Burney's Isle*, in the Arctic Ocean; *Diomedes*, in the middle of Behring's Straits; *Evoogisona* or *Clerk's Island*, to the south of the strait; *Matwi*, *St. Matthew* or *Gore's Isle*, south-east of the Gulf of Anadir; *Karagui* and *Behring's Isles* (with 110 inhabitants in 1827) on the east side of Kamtschatka; and the *Kurile Islands*, which extend in a long line of 900 miles across the mouth of the sea of Okhotsk, from Cape Lopatka to Ieso. Their number is not accurately known; but they contain eight known volcanic mountains, some of which are in a state of activity. Some of the islands are uninhabited from want of water, while others rival Kamtschatka in the abundance of game and fish. The few inhabitants are peaceable and well disposed; they live very much in the same manner as the Kamtschadales. The northern portion of them are subject to Russia, and pay a small tribute in furs and sea-calves; the southern islands are claimed by Japan.

KAMTSCHATKA is a large peninsula attached to the north-eastern extremity of Siberia, between 51° and 62° N. lat., and 166° and 167° E. long., about 800 miles long, from 100 to 250 broad, and containing about 80,000 square miles. It is traversed lengthways by a chain of volcanic mountains of great elevation (see *ante*, 629), many of whose summits are in constant activity. The climate is very severe; but not insalubrious; for the inhabitants are robust and long-lived, and have few diseases. Rye, barley, potatoes, cabbage, turnips, hemp, and flax may be raised successfully; but most of the people are devoted to hunting and fishing. The forests contain birch, fir, larch, poplar, cedar, willow, and juniper. The animals usually hunted are bears, lynxes, otters, rein-deer, foxes, sables, beavers, &c., and the number of skins annually exported is about 30,000, chiefly those of foxes and sables. There is also other game of several varieties, and water fowl, whose eggs, saturated with oil, constitute the principal part of the food of the inhabitants. The fish comprise salmon, cod, herrings, besides seals, walrus, and whales. The trade is very limited; labour is confined to the supply of temporary necessities; domestic comforts are little known or cared for, and affluence is seldom attained even by the most provident and most industrious. Taxes are paid in skins; furs and dried fish are exported from Petropaulovski, chiefly by Russians and Dutch, who bring in exchange rice, flour, coffee, sugar, brandy, and whi-ky. The Kamtschadales, the indigenous natives of the peninsula, are a people of short stature, with firm shoulders, large heads, long and flat faces, small eyes, small lips, and but little hair. Their women have fine skins, very small hands and feet, and a tolerably well proportioned figure. In their independent state they were very warlike and ferocious; but now, under the Russian sway, they have become a peaceable and honest, but lazy, drunken, servile race, careless of futurity, and addicted to coarse sensuality. The southern Kamtschadales have both their winter and summer cabins raised on stages, twelve or thirteen feet high, for the purpose of drying their fish. The chief occupation of the men is fishing. In the northern part of the country the cabins are subterranean holes which retain the heat; but the closeness and the filth are insupportable by those who are not accustomed to them. The people are subject to few diseases; their most common complaints are scorbutic and venereal; and the glare of the snow occasions frequent inflammation of the eyes. In 1831 there were in the whole territory of Kamtschatka only 2700 natives and Aleutians.

Omsk has recently (1812) been constituted the capital of Western Siberia, instead of Tobolsk.

EMPIRE OF JAPAN.

THIS empire consists of a group of large islands in the Pacific Ocean, to the north-east of China, between 30° and 42° N. lat., and 128° and 143° E. long. The principal islands are named *Nippon*, *Si-koke*, *Kiu-siu*, *Awadsi*, *Sado*, and *Ieso*; besides which, the Japanese have also colonised the southern portion of the island of Saghalien, and claim dominion over the southern half of the Kurile islands. Nippon is upwards of 800 miles in length, but of irregular form, and of various breadth: the other islands are very considerably smaller; and the whole superficial area of the empire is estimated at about 260,000 English square miles. The principal islands have a very uneven surface, interspersed with rocky hills. Nippon is traversed throughout its whole length by a regular chain of mountains, the highest peak of which, named Fusi, exceeds 12,000 feet; but the elevation of the chain is in general so low, as to admit of cultivation up to the watershed of its streams. Several of the summits are active volcanoes; Wunsodaki, east of Nangasaki, is the most formidable at present known; Fusi, in Nippon, was formerly an active and very much dreaded volcano, but has been quiescent for more than a century. Earthquakes are frequent and destructive; thermal and mineral springs are of frequent occurrence. The metallic wealth of the country is said to be very great, comprising copper, sulphur, lead, tin, iron, gold, and silver. The streams have very short courses, and are for the most part rather torrents than rivers. The climate varies extremely from north to south, being intensely cold in the north, while in the south it is nearly as warm as in the south of France, though more variable. In Kiu-siu, and the southern parts of Nippon, the thermometer ranges between 29° and 104° Fahrenheit, 80° being the average in the middle of summer, and 35° in the coldest months of winter. The cold, however, is much increased in winter by the prevalence of north and north-east winds; while the summer heats are modified by breezes from the south and south-east. Rain is very frequent; hurricanes also and storms are of frequent occurrence, and are sometimes very violent.

Few plants, except on the hills, are found in a natural state; and the face of the country, even up the sides of the mountains, is most diligently cultivated. In the southern districts rice is raised in very large quantities, and forms the principal article of food among the inhabitants. Wheat is very partially cultivated, and is held in little estimation. Barley, buckwheat, beans, potatoes, melons, pumpkins, and cucumbers, are raised in great abundance; and the fruit trees of southern Europe, the orange, lemon, vine, peach, and mulberry, are common and very productive. Ginger and pepper are the principal spice plants; cotton is grown in considerable quantity, and tobacco, in the south. Next to rice, however, tea is the grand object of cultivation; and not only are there large plantations of that shrub, but the hedges on the farms of Kiu-siu consist of it, and supply the drink of the labourers. Oaks, firs, and cypresses, are common, but not in large masses; timber is supplied from Ieso and Saghalien. There are also the gum varnish tree, the camphor laurel, and others; many of the plants are extremely beautiful. Among the wild animals may be enumerated bears, boars, foxes, dogs, deer, monkeys, hares, rats, mice, and two small animals of the weasel tribe peculiar to the country, and called *itutz* and *tin*. The people eat very little animal food; they live chiefly on fish, and dress principally in cotton and silk; the pasturing of cattle is consequently not much attended to. Buffaloes and bees are not numerous, and are used only for draught labour; the sheep are but few, and are the progeny of a stock introduced by the Dutch. The horses are small, and used only by the nobility; there are neither asses nor mules; and pigs are found only in the vicinity of Nangasaki. Dogs are common, and held sacred; cats are even more esteemed by the Japanese ladies than by those of Great Britain. Birds are numerous, and of many species; falcons are highly valued; and pelicans, cranes, and herons, are considered useful in destroying vermin. The pheasants, ducks, geese, teal, storks, pigeons, ravens, larks, and other small birds are numerous; but the common crow and the parrot have never been seen. Snakes are not unfrequent, and one variety, the *ourabami*, is of enormous size; there are also tortoises and lizards, scorpions, centipedes, and white ants. The seas contain large quantities of fish, which afford a principal article of food to the inhabitants, and give employment to numerous villages of fishermen. The salmon, herring, cuttle-fish, eel, perch, and many others, are caught in great quantities; oysters also, of a peculiar and delicious kind, are extremely abundant, and are used almost exclusively as food by many of the poor people about Iedo, where the fisheries are situate. Whales and narwhals often visit the coasts, and are caught by the harpoon; the flesh is eaten, the balein serves for various purposes, and ambergris is extracted from the entrails.

The people seem to be a mixed race of Mongolian and Malay blood, though they boast of being aborigines. They are in general well made, active and nimble, with yellow complexions, small deeply-set eyes, short flat noses, broad heads, and thick black hair. They are divided into eight classes; princes, nobles, priests, soldiers, civil officers, merchants, artisans, and labourers; which are kept distinct, with all the strictness of caste, each person following invariably the profession of his fathers. Polygamy is not practised even by the nobles, and much more freedom is permitted to the women than in China; nor do the women compress their feet, though they bandage their hips so tightly as to turn their feet inwards, and give themselves a very awkward gait. Concubines are common, but they hold a lower rank than wives. Prostitutes are found in every town in greater numbers than in any other country of Asia, except India; and so little discredit is attached to the character, that they are visited by married women, and are received without remark into respectable society. The Japanese are said to be intelligent, and desirous of knowledge; they study medicine and astronomy; and their astronomical observations are as correctly made as their rude instruments will allow. Almanacks are compiled at Miyako, the great centre of the national science and literature. History has been written with great care by some of their learned men; their works on botany and zoology contain good descriptions, and tolerable engravings; poetry is cultivated; and there is a prevalent taste for music. The Japanese language has no relation to the Chinese, nor indeed to any known Asiatic language, except that of the Ainos, who inhabit Ieso and Saghalien. It is polysyllabic, and has an alphabet of 47 letters, which are written in four different forms, one of which is used exclusively by men, and another by women. Some of the inhabitants are also acquainted with Chinese. The established or state religion is that of Buddha; but it has many varieties, and much superstition prevails among its votaries. There are monks of various orders, some leading a secluded and ascetic life, others infesting the towns and highways while on their way to visit different temples. There are also large numbers of religious beggars and singing girls, who go about in the habit of nuns, and levy considerable sums. The sect of Siuto, which professes the doctrines of Confucius, has also been imported from China; but its followers are very few. An older form of religion than either of these has maintained itself from the most remote antiquity to the present day, not only in the hut of the peasant, but in the palace of the Mikado; which is called the *Siuto* or *Sin-siu* (faith in gods), or, according to Siebold, *Kami-no-mitsi* (way to the gods.)—(See *ante*, p. 126.) This ancient sect considers the founders of the empire as the immediate descendants of the Supreme God, who came down from heaven into Japan; and have continued without interruption to exercise sovereign authority;

the race being continued by adoption, when progeny fails the reigning emperor. They believe the spirit of their ruler to be immortal; a doctrine which confirms the faith of the people in the immortality of the soul; in connection with which they also believe in future rewards and punishments. The Supreme Being is too great to be addressed in prayer, except through the mediation of the Mikado, the son of heaven, or of inferior spirits called *Kami*, to whom temples are specially erected. Various kinds of food are offered to the *Kami*, and anciently even human victims were immolated to appease the wrath or secure the favour of spirits. They pay great reverence to the fox, as the abode of a spirit, and consult him in difficult affairs. The priests of this sect are allowed to marry. The amount of the population has been variously estimated; but is positively unknown to any European. Balbi, on the assumption that Japan is equally populous with China, rates the population at 25,000,000; but if China really contains more than double the number which this geographer assigns to it, the population of Japan should, on his principle, amount to fifty or sixty millions.

The government is a hereditary absolute monarchy. The sovereignty was formerly vested in an emperor called the *Mikado* or *Dairi-sama*; but in A. D. 1593, the emperor's Seogun, or military commander, called also the *Kubo*, usurped the chief civil power; and the Mikado has been ever since a mere tool in respect of the civil government, though he has been left the entire superintendence of religion and education. All public enactments, however, must have his sanction before they become laws; to him alone belongs the power of conferring honorary distinctions. He lives at Miyako, secluded in a large palace called the *Dairi* or Imperial Court, surrounded by numerous officers, who treat him with almost divine honours. His income, however, is small, being now restricted to the taxes levied in Miyako and its district, a certain allowance from the *Kubo*, and fees paid for dignities and offices. His income, indeed, is so small in proportion to the number of his dependents, that he may be said to live in splendid poverty. The *Kubo* keeps a guard and a governor over him, but acknowledges himself to be the Mikado's first subject, and sends every year an embassy to acknowledge his inferiority with rich presents. The *Kubo* holds his court at Iedo; exercises full sovereignty over the lives and properties of his fellow subjects; and directly administers the local government of the five great towns of Iedo, Miyako, Osaka, Sakai, and Nangasaki. The rest of the empire is divided into provinces, and smaller districts which are governed by daimios and siomios, appointed by the *Kubo*; some of whom are so dependent on him as to be obliged to leave their families in the capital as hostages for their good conduct, and even to reside there themselves during half the year. But they receive the revenues of their territory, with which, besides maintaining their state and dignity, they keep an armed force for the preservation of order, make and repair roads, and erect other public works. They usually reside in the large towns, and occupy castles defended by strong gates and lofty towers, which are the marks or symbols of their dignity. Even the least dependent of the daimios are obliged, once a-year, to repair to Iedo, attended by numerous and splendid retinues, bearing valuable presents, which form a main portion of the *Kubo*'s revenues. The general executive government is confided to seven ministers; the supreme judicial council is composed of five daimios, who assist the *Kubo* in deciding on political offences; and a senate of fifteen daimios forms the ordinary court of civil and criminal law. The laws are severe, and even sanguinary; fines are seldom imposed; exile to the penal settlement of Fatsisio, banishment, imprisonment, torture, and death by decapitation or impaling on a cross, are the ordinary punishments; and it often happens that the courts visit with punishment, not only the delinquents themselves, but also their relatives and dependents, and even strangers who may have been spectators of the crime. In order to avert these evils from his friends, an offender sometimes anticipates his expected punishment by ripping up his belly; and every Japanese is instructed in the art of performing this operation. The prisons are gloomy and frightful dungeons; and the police is extremely strict. The public revenues are derived from taxes on land and houses; the land is assumed to be the property of the State, and the tax, as in all Asiatic governments, consists in part of the rents, which are said to exceed the half, or even two-thirds, of the produce. The army in time of peace is rated at 100,000 infantry, and 20,000 cavalry. The arms of the former are muskets, pikes, bows, sabres, and daggers; of the latter, lances, sabres, and pistols. The artillery is confined to a few brass cannon and light guns. Discipline and the art of fortification are little understood. There is no armed navy.

The industry of the Japanese will bear a comparison with that of the Hindoos or the Chinese. Their works in copper, iron, and steel, bear a high character; telescopes, thermometers, watches and clocks of good quality, are made at Nangasaki; glass is made, but the manufacturers are not acquainted with the art of glass-blowing. Printing was introduced from China in the 13th century, and is conducted in the Chinese manner by means of wooden blocks. Silk and cotton cloths are manufactured in quantities nearly sufficient for the supply of the country; and porcelain which is even more esteemed than that of China. The art of lackerie is practised with great success; good paper is made from the bark of the mulberry and other trees, and the fibres are made into cordage. The art of building houses is very little advanced; they are almost universally constructed of timber, plastered on the outside, and consist of two storeys, divided into rooms by slight paper partitions. Of ship-building and navigation their knowledge is very limited; and they are compelled by law to build their vessels in a particular fashion, very like that of the Chinese junks. Great numbers of ships are employed in the coasting trade of the empire; but they are quite unfit for the navigation of the open-sea. The internal trade is very extensive, and native industry is protected and encouraged by a variety of regulations, while, on the other hand, there are no customs or excise duties, and communication is facilitated by numerous coasting vessels, and by excellent roads. The shops and markets are always well provided, and the great fairs are attended by crowds of people from all quarters. Foreign commerce, however, so far from being encouraged, is rigorously opposed by the government, in consequence of the attempts made by the Jesuits to Christianize the people. Nangasaki is the only port for foreign trade, and the Dutch are the only Europeans allowed to engage in it; while the number of vessels, and the kinds and quantities of goods, are strictly defined; and the number of residents in the factory is restricted to eleven. The ships, on arrival, are minutely searched; and the crews are confined to the small island of Desima, which is close to the harbour. All the business is transacted by Japanese, who even unload and reload the vessels. The superintendent of the factory is likewise obliged to send valuable presents to the *Kubo*; and once in four years he is required to make an official visit to Iedo, with great pomp, and gifts of more than usual value, consisting, with the journey, about £3000. The imports comprise raw silk, woollen, cotton, and linen cloths, sugar, dyewoods, seal-skins, pepper and other spices, mercury, tin, iron, cinnamon, glass-ware, &c., from the Dutch; and silk, tea, sugar, dried fish, and whale oil, from the Chinese. The exports consist chiefly of copper in bars, and, to a small amount, of camphor, silk fabrics, lackered ware, porcelain, &c.

Miyako (i. e. the capital) or *Kio* (the residence) the metropolis of the empire, is a very large city situate in a plain surrounded by hills, in the south-western part of Nippon, about 40 miles from the sea. It is regularly built, with straight streets crossing each other at right angles; but here, as everywhere else, the houses are only of timber and plaster, and two storeys high. Among the great number of public buildings the principal is the palace of the Mikado, an inclosure of vast extent, surrounded with walls and ditches, and overlooked by a fine square tower. Next to it are the palace of the *Kubo*, a building of hewn stone, surrounded by a wet ditch, and also overlooked by a tower; the temple of Fokoz, celebrated for a colossal image of Daibouts or the Great Buddha; and the temple

of Kwanwon, also with a large image of that god, and numerous images of his subordinate deities. Miyako is the centre of Japanese trade and industry; and contains the mint where the money of the empire is coined. Most of the books are also printed in this city, where the *dairi* (imperial court) forms a sort of academy for the cultivation of literature, science, and the fine arts; the city also contains a library of about 150,000 volumes, and one of the six universities of the empire. At the end of the seventeenth century, as reported by Kämpfer, Miyako contained about half a million of inhabitants, among whom were 52,169 priests.

Edo or *Yedo*, the residence of the Kubo, and the seat of the civil and military government of the empire, is situate in a large plain, opening to the shore of a deep gulf, on the south-eastern coast of Nippon, about 200 miles E.N.E. of Miyako. It is about 20 miles in circumference, contains about 1,500,000 inhabitants, and carries on a great trade. The principal building is the palace of the Seogun or Kubo, situate near the middle of the city, and seeming by its extent to form a separate town. It is surrounded with ramparts and wet ditches, which are crossed by draw-bridges. It contains the great imperial library of about 150,000 volumes; and it was here that the *Encyclopedia* of Japan was published, a very valuable work, in 80 volumes, with a great number of plates. Owing to the nature of its construction, the city is very subject to fires; scarcely a day passes without several; and whole quarters of the city are sometimes burned down.

Nara, the ancient residence of the emperors, and, consequently, much venerated, is situate near Miyako, and is a very flourishing place, in consequence of the great number of its temples, which attract crowds of devotees. *Osaka*, at the mouth of the river Yodo, which runs through the plain of Miyako, is a large city, the richest and most commercial in the empire, and the great resort of all the votaries of pleasure. According to the Japanese its population might furnish an army of 80,000 men; but M. Balbi, with more than his usual moderation, thinks the total number of inhabitants may be reckoned at 150,000. *Nangasaki*, on the west coast of the island of Kin-siu, an open town with narrow winding streets, is the only place where foreigners are allowed to trade. Its commerce and manufactures render it very flourishing and populous; and it is surrounded by hills crowned with numerous temples, which render the view very picturesque. *Matsmai*, a large town, with 50,000 inhabitants, situate on a bay at the south-west point of the island of Ieso. Its harbour is constantly filled with merchant vessels, and it has a flourishing trade. Among the remarkable places of Japan we must not omit the island of *Fatsisio*, the most extraordinary place of exile in the world. It is a small island in the open sea, 230 miles S. by E. of Iedo, and its coasts are so precipitous that there is only one landing place. The grandees, who have fallen under the Kubo's displeasure, are sent hither, where they are employed in different kinds of handiwork, and manufacture stuffs so precious for their beauty, that his majesty reserves them for his own use.

The large island of *Ieso*, called also *Mo-sin*, and *In-su*, to the northward of Nippon, and separated from it by the *Strait of Sangar*, though possessed and colonized by the Japanese, is also inhabited by an aboriginal people, who call themselves *Ainos*, but are called by the Japanese *Mo-sins* (hairy bodies). They are distinguished from the Japanese by a somewhat taller stature and more robust frame; have very large, thick, black beards, and black and somewhat frizzled hair. They live chiefly by hunting and fishing, and pay their tribute to the governor of Matsmai, in skins or other natural productions of their country. Their principal arms are bows and arrows. They live without established laws, and almost without religion; have no alphabet, and no coin, and trade entirely by barter. They live in tribes, which are just so many family associations, though they seldom form mutual alliances. Their language seems to be equally foreign to the Japanese, the Manchoo, and the Kamtschatdale. The island presents on all sides lofty mountains, covered with beautiful verdure and magnificent forests, which abound with wild animals.—(*Malte Brun*, II. 509, 514.)

AFRICA.

GENERAL DESCRIPTION.

PHYSICAL GEOGRAPHY.

ASTRONOMICAL POSITION.—Between $37^{\circ} 20'$ N. and $34^{\circ} 50'$ S. latitude; and $51^{\circ} 30'$ E. and $17^{\circ} 33'$ W. longitude.

DIMENSIONS.—The greatest length from N. to S. is about 4988 miles; and the greatest breadth, from E. to W. about 4618. The superficial area is estimated at 11,870,000 square English miles.

BOUNDARIES.—*Northern*:—The Atlantic Ocean, the Strait of Gibraltar, and the Mediterranean Sea. *Eastern*:—The Isthmus of Suez, the Red Sea, and the Indian Ocean. *Southern*:—The Southern or Antarctic Ocean. *Western*:—The Atlantic Ocean. Africa is a vast peninsula, joined to Asia by the Isthmus of Suez, which is only about 75 miles broad; and, at the Strait of Bab-el-Mandeb, the southern extremity of the Red Sea, it approaches within 16 miles of the same continent. It is separated from Europe by the Mediterranean Sea, and the Strait of Gibraltar, at the latter of which the two continents approach within about 10 miles of each other.

NAME.—The meaning of the name of this great continent has been a fertile subject of conjecture among philologists and antiquaries. By the Greeks it was called *Libya*, and by the Romans, *Africa*; the learned Varro believed that he had found the etymology of the former in *Libs*, the Greek name of the south wind; and Servius, the scholiast on Virgil, proposes to derive the other from the Latin *aprica* (sunny), or the Greek *a-phriké* (without cold). It is more probable that the name *Libya* was formed by the Greeks from the name of the people whom they found in possession of the country west of Egypt, and who are called in the Hebrew Scriptures *Lehabim* or *Lubin*. With respect to *Africa*, Suidas tells us that it was the proper name of that great city which the Romans called *Carthago*, and the Greeks *Karchedon*. It is certain at least that it was applied originally to the country immediately around Carthage, that part of Africa with which the Romans became first acquainted, and was subsequently extended with their increasing knowledge, till it came at last to include the whole continent. Of the meaning of the name the language of Carthage itself supplies a simple and natural explanation; the word *Afryqah* signifies a separate establishment, or in other words a colony, as Carthage was, of Tyre. The Arabs of the present day give the name of *Afrikiyah* or *Afryqah*, to the countries which formerly depended on this original *Afryqah*; and it may be remarked, that the name was not used by the Romans till after the time of the first Punic war. (*Esquisse Generale de l'Afrique, par M. D'Avezac*. Paris, 1837; pp. 5, 6, 7.)

GENERAL ASPECT.—Unlike the other great continents, Africa presents a solid mass of land with a very regular coast, unbroken by large peninsulas, islands, bays or gulfs, except only on the south-western side, where the Gulf of Guinea makes a deep and wide indentation. The length of its coast-line is calculated to exceed 16,000 miles. Throughout the whole of that space there are only two navigable openings yet known by which access can be obtained to any considerable distance into the interior of the continent; and though the one of these, the river Nile, has been known to the civilized world since the earliest dawn of history, its remote sources have not yet been reached by Europeans; while the mouth of the other, the Kawara, is a discovery of very recent date; the certainty of its existence, and the direction of its course, were proved so lately as the time of Mungo Park. In addition to this want of water communication, the access of travellers has been barred by the all but insuperable difficulties of passing the deserts, which occupy so large a portion of its surface, and serve as a wall of separation between its sable natives and their lighter

coloured brethren of the northern and eastern continents. The general characteristic of the surface is, that in most parts of its outline, the countries immediately on the coast are low plains, above which the land rises by successive terraces, forming at their summit level an immense table-land, or a series of table-lands, which seem to occupy the greater part of the unexplored interior.

MOUNTAINS.—The north-western portion of Africa, between the Mediterranean Sea and the Sahara, contains a group of mountains which has been known from the most remote antiquity under the general name of *ATLAS*. The principal chain begins on the shores of the Atlantic Ocean, with Cape Geer, which rises almost perpendicularly from the sea to a great height, and extends nearly due east to the meridian of Morocco, when it turns to the east-north-east, and continues in that direction to the meridian 5° W., where there seems to be an extensive nucleus which contains the highest summits of the chain. From this point a chain appears to extend along the western side of the basin of the river Mulwiah nearly to its mouth, in lat. 35° N.; while another branch, under the name of *Jebel Teda*, proceeds in a north-easterly direction along the eastern side of the same river basin to lat. 34° , and then stretches in an easterly direction through the territory of Algiers, where the highest part bears the name of *Waniseris* (Wan-nash-ris), and terminates at the river Shellif, which probably interrupts the continuity of the chain, a little to the west of the meridian of London. To the east of that river, the range again rises, and forms, south-east of Algiers, the *Jebel Gergerah*, lat. $36^{\circ} 20'$ N., from which it declines to the south-east. Farther east several ridges appear to extend in different directions into the territory of Tunis, terminating on the one side in Capes Blanco and Bon, and on the other at the basin of the great salt lake of Marks, and the Gulf of Khabz. The chain or range whose general course we have thus endeavoured to trace, has been sometimes distinguished as the *Lesser Atlas*, in consequence of its being supposed that a higher chain occupied the country farther inland, between Barbary and the great desert. It has now been ascertained that no such chain exists, the country between the coast chain and the desert being described by the natives as more or less elevated, with slopes of greater or smaller acclivity, but without any range of mountains. From *Jebel Teuan*, west of the Mulwiah, a minor range extends westward, nearly parallel to the coast of the Mediterranean, and terminates with *Jebel Zatout* or *Ape's Hill*, at the Strait of Gibraltar. From the southern part of the great mountains another minor chain, named *Jebel Hadrah*, extends first south, and then westward towards the shores of the Atlantic, near Cape Nun; while spurs diverge on both sides, forming the watersheds of the various wadies or river valleys, that pour their waters towards the sea or the desert. To the east of Lake Londeah, a chain of hills, lower than the Atlas, but which may be considered as a continuation of the same system, extends in a direction nearly parallel to the shores of the Mediterranean, under the names of *Jebel Fissat*, *Jebel Gharian*, and the mountains of *Tarhounah*, terminating in a chain of low hills which skirt the coasts of the greater Syrtis. The only summit of the Atlas which has been measured with any degree of accuracy is *Miltzin*, 27 miles S. 20° E. of Morocco, which has been found to be 11,400 feet above the level of the sea, a height below the limit of perpetual snow assigned by Humboldt; and yet this summit but once in twenty years has been seen free from snow. It is more than probable that Miltzin and the neighbouring summits are not the highest of the range, which will probably be found in the province of Teda, near the sources of the two great rivers Om-erbehg and Mulwiah, where a considerable part of the chain is permanently covered with snow, and where the summits have been estimated to reach the height of 13,200, and even 15,000 feet. *Waniseris* and *Gergerah* are covered with snow during a considerable part of the year, and have been estimated to reach the height of 7600 feet (120 toises.)

Mountains of Abyssinia.—These form a chain remarkable for its elevation and extent, which proceeds in a direction from south to north, across the provinces of Shoa, Amhara, and Tigre, and is prolonged towards the south-west across the table-land of Gingiro and Nara, beyond which it is supposed to join or form a part of the celebrated *Mountains of the Moon*, of which nothing is known but the Arab name. This name is either *Qomr* or *Qamr*, according to the diacritical marks employed; *Qomr* signifies an object of a white colour; *Qamr* signifies the moon. If the former be the correct form, it may imply that these mountains are covered with snow; but as the name *Mountains of the Moon* is as old as the time of Ptolemy the geographer, the latter is more probably correct. (—*Journal Asiatique*, Paris, February 1837.) Another chain appears to extend to the south-west from that which overtops Lake Dembea, across the Bahr-el-Azrek, and to join the mountains of *Dyre* and *Tegla*, to the south of Kordofan and Dar-Fur. Another very high chain extends through the eastern part of Tigre, and, stretching in a direction from south to north, forms the famous denle of *Taranta*. Proceeding northward, this chain follows the direction of the west coast of the Red Sea, and, in Nubia, forms the mountains of *Langaty*, the height of which must be great, since, according to Burckhardt, they form the limit of the seasons in that part of Africa. The hills which form the basin of the Nile in Nubia and Egypt, and the west coast of the Red Sea, may be considered as an extension of the Abyssinian mountains, but are too inconsiderable to require further attention here.

The Mountains of Kong.—This name has been given to a range which separates the low country of Guinea from the basin of the Kowara, and has been supposed to extend eastward across the continent, to join the Mountains of the Moon. It appears to terminate westward in a very hilly country, which contains the sources of the Kowara, the Senegal, and the Gambia; in long. 7° or 8° E. it is cut through by the stream and valley of the Kowara; but beyond that eastward there are the *Mountains of Mandara* with others in the interior, and *Cameroons*, on the sea coast, which appear to be connected with the Kong. The Cameroon mountains rise to an elevation of 13,000 feet, close to the sea, and in the adjoining island of Fernando Po, Clarence Peak rises to 10,655 feet. These mountains appear to be of volcanic formation, and to be connected with those of Mandara by a chain of the same description. But beyond these scanty particulars, hardly anything is known about this range or system of mountains.

In southern Africa the *Mountains of Lapata* or the *Back Bone of the World*, have been long celebrated. They are supposed to extend in a line parallel to the south-east coast, from Cape Guardafui to the Cape of Good Hope, or nearly so; but nothing positive is known respecting them. The same may be said of the corresponding chain which extends along the eastern regions of Congo, Angola, and Benguela, supporting the western side of the great table-land which is supposed to occupy the interior. But the mountains which occupy the extremity of the great peninsula are somewhat better known; as they form several chains of great height within the territory of the Cape of Good Hope. Of these the *Nieuweldt* rises to 10,000 feet; the *Compass-berg*, in the snowy range, to 7400; and the *Table Mountain*, near the Cape, to 3582 feet above the level of the sea.

PLAINS AND DESERTS.—Of the smaller plains and alluvial river-basins and deltas common to Africa with every other continent, there are none so extensive as to require particular notice in this place. But in its grand characteristic of *deserts*, Africa is pre-eminent. The great desert, to which the Arabs give the name of *Es Sahara* or *Suh'ra* (the Desert), by way of eminence, occupies a space of more than 46° of longitude and 15° of latitude, or about 3000 miles in length, and 1000 in breadth, the tropic of Cancer running through the middle of its breadth. A great part of the surface is a dead level, stretching on every side like the ocean, and presenting a view only limited by the horizon. In some

places it is a naked burning plain of sand; other parts consist of hard clay; and in some places the surface is covered with small sharp stones. Elsewhere it is diversified with ravines, rocks, and eminences, all alike barren and unfruitful; while the soft finely pulverised sand is driven to and fro by every breath of wind, and piled up into hillocks which constantly change their forms and places, and too often bury whole caravans in their bosoms. This vast tract, however, is not entirely desert. It is sprinkled here and there with fertile spots, like islands in the sea, which render its dreariness only the more awful from the contrast. In these spots, called *oases* or *oahs*, the supply of water admits of a certain degree of verdure and cultivation, affording support to a scanty population. In the eastern part of the desert some of these oases are of considerable extent, and form a sort of little kingdom. In other parts they are only large enough to contain one or two villages, which serve as halting-places for the caravans; others of them afford merely springs or wells for the refreshment of travellers, but too small a portion of cultivable soil to admit of settled habitation. The Sahara contains, likewise, many salt lakes, which afford an abundant supply of natron and common salt, important articles of traffic between the desert tribes and the people of Soudan, where salt is wanting. But under the impulse of the predominating thirst for gain, man has overlapped the barriers which nature might seem to have destined to remain forever insurmountable, and has not provided an instrument every way calculated to carry her favoured children over these her dreariest regions. The camel has been emphatically called the ship of the desert, and, by the assistance of this invaluable animal, the recesses of the Sahara have been explored, and regular tracts for commerce established across its wastes. Caravans, or companies of traders cross the desert in every direction, amounting sometimes to the number of 200 individuals. They are generally menured from their infancy to the hardships and difficulties of these formidable journeys; their food consists of camel's milk, with lark's meat or Lidian corn, and a few dates. Water is conveyed in goat-skins, covered with tar, and these are replenished at the wells which occur in the route. Sometimes, however, in dry seasons, the springs fail, and great numbers of the travellers and their camels perish from thirst; only about thirty years ago, a caravan proceeding from Tahlelt to Timbuctoo, across the western part of the Sahara, wholly perished, to the number of about 2000 men and 1800 camels. Difficult, dangerous, and disagreeable as the journey is to the regular traders, it may well be imagined how much more so it must be to the poor negroes whom they bring with them in large numbers from Soudan, to supply the slave markets of Barbary and Turkey. Quite unaccustomed to such travelling, and too often ill supplied with food and water, these poor wretches speedily fall victims to the avarice of their masters. When wearied out they lie down and die, and the desert paths are strewn with their bones. Benham and Clapperton, in one part of their journey to Bornou, passed from sixty to ninety human skeletons every day; but at a place called El Hammam, the numbers were countless; and the greater part of these, our travellers were told, were the spoils brought by the sultan of Fezzan from Soudan, only the year before.

The *Desert of Agad* occupies the western part of the territory of Algiers; other deserts of great extent appear to occupy Ajan and the country of the Cimbebas on the south-east; another large desert extends from the southern borders of Benguela to the river Gariep; and to the south of that river, elevated districts called *Karon*, of several hundred miles in extent, occur between the high mountain ranges which constitute the Cape territory.

RIVERS AND LAKES.—Almost the only rivers worthy of notice in a general description of the continent are, the Nile; the *Senegal*; the *Gambia*; the *Kawara*, *Quorra*, *Joliba*, or *Niger*; the *Zaire* or *river of Congo*; the *Gariep*; and the *Zambeze* or *Zambizi*.

The *Tchad*, *Tjad*, *Schad*, or *Chad* is the largest lake yet discovered in Africa. Its centre lies in 15° E. long., and $13^{\circ} 30'$ N. lat.; its length being about 200 miles, and its breadth 150. Its water is fresh, and it is said to have no outlet. The other principal lakes are:—*Fittre*, a large lake east of the Tchad, of which nothing is known; *Dibbie*, *Debo*, or *Djebou*, formed by the Joliba, between 15° and 16° N. lat.; the *Dembia* or *Tzama*, formed by the Bahr-el Azrek, in Abyssinia; the *Birkel-el-Keroun*, formed by the Nile in Egypt; the salt lakes or marshes of *Melgig*, *Shott*, and *Londeah*, in Barbary; and *Mariari*, a large lake said to exist in the interior, north-west of Mozambique; but of which nothing whatever is known.

ISLANDS.—*Madagascar*, *Comoro Islands*, *Bourbon*, *Maurilius*, *Amirante isles*, *Seychelles*, *Zanzibar*, *Pemba*, *Mozambique*, *Quirimba*, and others off the south-east coast; *Socotra*, east of Cape Guardafui; *Madeira*, *Desertas*, and *Porto Santo*; *Canary Islands*, and *Cape Verde Islands*, off the north-west coast; *Fernando Po*, *Principe*, *San Thomé* and *Annobon*, in the Gulf of Guinea; *St. Helena*, *Ascension*, and *Tristan da Cunha*, in the Atlantic Ocean; *Jerbeh*, and *Karkineh*, off the coast of Tunis, in the Mediterranean; *Dhalak* and others in the Red Sea.

CAPIES.—*Bon and Blanco*, on the north-east coast of Tunis; *Ceuta* and *Spartel*, at the Strait of Gibraltar; *Blanco*, *Cantin*, *Gier*, *Nun*, in Morocco; *Bojador*, *Das Barlas*, *Branco*, on the coast of the Sahara; *Cape Verde*, the most westerly point of the continent; *St. Mary*, at the mouth of the Gambia; *Mount Palmas*, *Three Points*, *St. Paul's*, on the east of Guinea; *Fornosa*, the south-west point of the delta of the Kawara; *Lopez-Gonsalvo*, *St. Catherine*, in Lower Guinea; *Padion*, at the mouth of the Zaire; *Negro*, in lat. 16° south. *Voltas*, at the mouth of the river Gariep; *Good Hope* or **THE CAPE**, the south-west point of Africa; *L'Agulhas*, the most southerly point of the continent east of the Cape; *Corrientes*, *St. Sebastian*, *Santa Maria*, *Delgada*, *Orfui* or *Dejoun*, on the south-east coast; *Guardafui* or *Ras Assere*, the most easterly point of the continent, at the entrance of the Gulf of Aden.

CLIMATE.—With the exception of the Barbary States, Egypt, a part of the Sahara, the country of the Hottentots, and Cafferland, this vast continent lies between the tropics, and its climate, generally speaking, is that of the torrid zone. It may even be said that the influence of this tropical climate is felt over a great part even of those countries which their northern situation should exempt from it, for it is really only that strip of Barbary which the Atlas protects from the hot winds of the desert, and that part of Hottentot-land protected by the Nieuveldt and other mountains near the Cape, that enjoy the advantages of countries situate within the temperate zones. With the exception, therefore, of these small and narrow tracts, of those regions in the interior to which their elevation imparts the coolness of higher latitudes, and the borders of the great lakes and rivers, every part of Africa is burnt up by continual heat, and the continent generally may be regarded as the warmest part of the globe. Nothing moderates the heat and the dryness, but the annual rains, the sea-winds, and the elevation of the soil; while in the well-watered regions, the moisture, combined with the heat, though productive of the most luxuriant vegetation, are extremely unwholesome to man.

MINERALS.—The mineralogy of Africa is as imperfect as any other part of its geography. We have, nevertheless, says M. Balbi, endeavoured to arrange in the following table, the principal countries according to the respective abundance of the minerals which they produce.

Mineralogical Table of Africa.

DIAMONDS.—*Region of Moghreb*, Algiers.

OTHER PRECIOUS STONES.—*Ngooland*, Angola, Bihe, Cassanga, Muchingi, Country of the Malouas; *Egypt*, in the Arabian chain of its mountains.

GOLD.—*Negroland*, Boure, Kamalia, Mandingo, Wasaw, Dankara, Haoussa, Wangara, Bambouk, Akim, &c.; *Western Africa*, Abuta; *Region of the Nile*, Kamanil, the country along the Bahr-el-Abiad, Abyssinia, &c.

SILVER.—*Eastern Africa*, Chicova. *Negroland*, the plateau of Timbo, Baghermeh.

COPPER.—*Negroland*, Country of the Molouas, Borgo or Dar-Saleh, Dar-Fur, &c. *Eastern Africa*, Country of the Cazembes, the Movizas, the Maquainas, Butuo, Zumbo, Inhambane. *South Africa*, Country of the Hottentots. *Region of the Nile*, Fertit, Kordofan, &c. *Region of Moghreb*, Morocco, &c.

LEAD.—*Region of Moghreb*, Algiers, &c.

IRON.—*Negroland*, Bambouk, Timbo, Kaile, Dentilia, Argola, Loango, Benguela, Molouas, Sala, Wassoulo, Bere, Mandara, Calanna, &c. *South Africa*, Country of the Maquainas; *East Africa*, Country of the Cazembes. *Algiers*, *Abyssinia*.

SALT.—*Moghreb*, Morocco, Tagazza, Aroan, Bilma, &c. *Region of the Nile*, Baylur, Kordofan, Sennaar, &c. *Negroland*, Quisama, Angola, Benguela, Saley or Vadai, Dar-Fur, &c.

VEGETABLE PRODUCTIONS.—Our knowledge of the botanical geography of Africa is limited in this respect, that we are acquainted with little more than its sea-coasts, while the interior is almost entirely unknown. The vegetable productions of the coasts of Barbary are closely related to those of the Spanish peninsula, from which they are separated only by the narrow interval of the Strait of Gibraltar; so that there is a singular analogy between the flora of Algiers and that of Andalusia and Valencia, in Spain. Olives, oranges, *chamærops humilis*, the arborescent *ricinus*, and the date-tree grow in both countries equally well. A somewhat higher degree of heat in this part of Africa favours the development of several vegetable forms unknown to the south of Europe, but they are, nevertheless, only different in species, without being so distinct as to constitute new genera. The plants of Barca have likewise a great similarity to those of Europe; they form the transition between the Atlantic species and those of Egypt; and even some of them are of a kind which seems peculiar to the torrid zone. The *zizyphus lotus* or jujub, is so abundant in this country that some ancient tribes were fed exclusively with its fruit, and received, on that account, from the Greeks, the name of *Lotophagi* or Lotus-eaters. Egypt presents a great number of particular plants, which are so characteristic, that the mere sight of them, meagre and stunted as they are, is sufficient to indicate their country. Upper Egypt produces in abundance numerous kinds of *cusins*, the leaves of some of which form, under the name of *senna*, a considerable branch of commerce. Besides the date-tree and the *chamærops* there is also a remarkable kind of palm called the doum palm or *cuvifera thebaica*. Several aquatic plants cover the surface of the Nile with their large leaves, and their flowers, which float gracefully upon the water; as the *nymphaea lotus* and *cærulea*, which are seen on the ancient monuments; but the *nelumbium speciosum*, which is also figured among the hieroglyphics, has disappeared from the waters of the river. The fruit described by the ancients under the name of *persea* is produced by a plant supposed to be the *balanites Egyptiaca*, a small thorny tree which covers the sandy tracks not only of Egypt, but also of a great part of central Africa, and is found in abundance at Senegal. In Abyssinia, the vegetation has not yet acquired a tropical character; it is, nevertheless, connected with the plants of Mozambique and the Cape of Good Hope. In this country Bruce found a species of *protea*, and Salt, a *pelargonium*, genera which were believed to be peculiar to the Cape of Good Hope and New Holland. Coffee grows naturally on the African coast of the Red Sea, near Bab-el-Mandeb, and in the interior, to the southward of Abyssinia, and from it the province of *Kaphr* takes its name. The plants of Upper Egypt, on the contrary, and of the country farther inland, have a great resemblance to those of the west coast of Africa; but no country offers in its plants such a singular physiognomy as the Cape of Good Hope. It is there that we find numerous *erica*, *protea*, *pelargonium*, *mesembryanthemum*, *ixia*, *stapelia*, &c. These genera are formed by a number of species all collected together near the south point of the continent, with the exception of one or two which are found upon the more northern coasts. The plants of the equinoxial regions have a strong resemblance to those of the west coasts; so much so that there is a great uniformity of vegetation from the Senegal to the Zaire. Among the trees are found the *adinsonia digitata* or baobab, that colossus of the vegetable kingdom, which grows also in Nubia, the *bombax pentandrum*, the *elais guineensis*, and others. These remarkable plants are found along a very considerable extent of the coast. The *sterentia acuminata*, a tree whose seeds, known among the natives by the name of *cola*, have, it is said, the property of rendering the most unwholesome water drinkable, grows in Guinea and at Sierra-Leone. The *anona senegalensis* and the *chrysobalanus icaco* are also useful trees found on the banks of the rivers from the Senegal to the Zaire. In Senegambia, indeed, there are plants not only of species which grow in the regions of Africa of analogous climate, such as upper Egypt, and in Arabia, &c., but also of species which have been considered peculiar to the Indian Archipelago, Madagascar, and South America. It must, however, be remarked that these vegetable relations are only found in regions characterised by excessive heat accompanied by humidity, as the banks of the Gambia and the Casamance. With respect to the sandy and arid localities of Senegal properly so called, they furnish vegetable productions which resemble those of Egypt and Arabia. The alimentary plants cultivated by the natives of the west coasts are maize, cassava, two kinds of pulse, of which the one is the *cytisus cajan*, L., the other a kind of haricot (*dolichos*) and the *arachis hypogæa*. The best fruit trees of the same country are the banana (*musa sapientum*), the papaw (*carica papaya*), lemons, oranges, tamarinds, the *elais guineensis* which furnishes the palm-oil, and the *raphia cinifera*, which, as well as the *elais* and a species of *corypha*, produces the famous palm-wine. Some botanists think that the greater part of these plants are of an origin foreign to Africa. Thus Mr. Robert Brown assigns an American origin to the maize, the cassava, the ananas, the papaw, and tobacco, while he thinks that the banana, the lemon, the orange, the tamarind, and the sugar-cane have been imported from Asia. The interior of equinoxial Africa is unknown to botanists; but if we compare the productions of Senegal, Benin, Congo, and Upper Egypt we find among them such striking relations, as clearly to prove, in our opinion, that the same climatic causes originate the same vegetable productions, without perceiving any necessity for supposing their transmigration from one country to another.—(*Eulbi's Abregé*.)

ANIMALS.—With the exception only of a few animals common to Africa with the adjacent peninsula of Arabia, this continent presents a zoological physiognomy as distinct from that of Asia as if the countries were separated by the distance of half the globe. In the whole of central and northern Africa are found lions, panthers, ostriches, jackals, gazelles, and antelopes, of kinds that are not found to the south of the tropic of Capricorn, where so many other species are assembled. Everywhere the antelopes are the prey of the lions and other feline animals, and of the jackals, hyenas, and pythons. The one-humped or Arabian camel, now abundant in northern Africa, was introduced to the west of the Nile only since the third century. Beyond the Sahara, under the influence of the humidity produced by the great rivers of Senegambia and Soudan, appears a creation, of which no species have ever crossed the desert. There we find the African elephant, the two-horned rhinoceros, the tall giraffe, and the clumsy hippopotamus, which extend their ravages, or have their haunts, in every suitable locality between the Sahara and the Cape of Good Hope. Between the tropics are found various species of the dog-headed monkeys (*cynocephali*), none of which ever inhabited Egypt, but of which, nevertheless, three kinds were worshipped in that country, a practice which could only have originated in the native region of these animals. Monkeys with painted faces are found only in Guinea; some are found

at the southern extremity of the continent; and others again from Sennar to Caffierland. In the basins of the upper Nile and its affluents are two kinds of the *fennec*, described and delineated by Broce, which has been thought to be a *galago*. Its immens ears, exceeding two-thirds of the length of its dog-like body, form a wide distinction between it and the other *quadrumana*. Figured on the monuments of Lower Egypt, with the dog-heads, the sacred beetle, and the antelopes of the same region, the *fennec* establishes the Ethiopic origin of the people who raised those monuments. Along the coasts of Zanzibar the Cape buffalo lives in the same forests with the elephant; to the south of the tropic of Capricorn are found the numerous species of antelope, which seem to have been assembled at the southern extremity of the continent as a compensation for the want of even a single species of deer. There also are found the zebra and the quagga; the engallo or phaeochere, with the body of a boar, the grinders of an elephant, and whose face, bristling with four protuberances, has given it its name of the masked boar; and the Ethiopic wild boar, figures of which are seen in the mosaics of Paestrina, which has two pairs of ribs more than the European boar, and to which the ancients gave the name of *koryopotamus*. Among the reptiles are crocodiles, suchos, khamsees, monitors, tuinambis, and chameleons; which last three animals are found nowhere else but in Spain and the Moluccas. The birds peculiar to Africa along the confines of Europe and Asia, have a strong analogy with those of the other two continents. The region of the Nile and the shores of the Mediterranean contain species analogous to those of Arabia, Persia, and Spain. In the sandy deserts of Central Africa are species fitted for those solitudes; while the southern extremity contains birds which are new and peculiar. The ostrich is found in the equatorial zone and the deserts; the messenger or secretary, a singular bird of prey that feeds upon reptiles, is found near the Cape; few regions, indeed, are more prolific of rapacious birds than Africa, and the animals that serve for their prey are abundant and easily procured. Large carrion vultures, griffons, the hideous chinow, and the oricow are always on the watch for the fall of some animal, upon whose carcase they pounce, and devour it in an instant; and in this work they are joined by a smaller species, the perenopters. Eagles are found in every region of Africa, along the banks of its lakes and rivers, and its sea-coasts. The other rapacious birds are kites, sparrow-hawks, vultures, bats, buzzards, and falcons. Crows are abundant; Guinea fowl, bustards of enormous size, grouse, partridges, and quails are much more so. The Numidian, the virgin, the Balearic cranes, the rose-coloured flamingo, the pelican, and a great variety of water-fowl, frequent the lakes and rivers of every part of Africa except the desert. In the equinoctial regions are parrots and parroquets innumerable, and birds of the most beautiful plumage.

Noxious insects and reptiles of almost every species abound; scorpions, scolopendras, enormous spiders, and other venomous creatures; but the Africans suffer less from these than from two other enemies, which, though individually powerless, are, when collected in swarms, the greatest scourge which can be inflicted on a country. These are the *termites* or white ants, and the locusts. The ants abound in all the tropical regions, and even for some distance beyond them; they build clay houses of enormous size, some of which Clapperton met with in his last journey, rising to the height of twelve feet, and resembling so many Gothic cathedrals in miniature. These ants devour every sort of animal or vegetable substance that falls in their way; and they march together in incredible swarms, making up by their numbers for their individual insignificance. Locusts are still more destructive; they are gregarious like the ants, and the region over which they have passed has the appearance of being clean swept. When on the wing they form so dense a body as to hide the sun like a black cloud.

PEOPLE. — There is a greater variety in the physical characteristics of the native Africans than is found among the inhabitants of any of the other continents. As the interior regions are almost entirely unknown, it is impossible to say what varieties may be found there; but along the maritime countries, throughout the Sahara, and the greater part of the basins of the Kawara, the Tchad, and the Nile, the varieties already known are so numerous and so perfectly distinct, that it is not easy to say what characteristics they have in common, except those that distinguish man from the other animals. The central or equinoctial regions, extending along both Oceans, from the southern limits of the Sahara and Abyssinia to about the 16° or 20° S. lat., are possessed by numerous races and varieties of the black-coloured, woolly-headed people, which are classed by naturalists as the Ethiopic or Black race, or Negroes properly so called. According to M. Flourens, they are an essentially distinct race from the whites. They have under their skin a particular apparatus, which is entirely wanting in the white man, and which is the seat of the pigment or colouring matter. — (*Annales des Sciences Nat.* December 1835. *Edin. New Phil. Jour.* XXVII. 353.) The Sahara and Moghreb are possessed by people of many varieties, all referable to the Caucasian or white class; differing in complexion according to the climate or other physical circumstances, but having nothing in common with the proper Negro's, except their colour, which in some of them is almost or even quite black in those parts of the body which are exposed. Among these the most remarkable are the *Berebers* or *Amazighs*, who possess the Atlas mountains, and are supposed to be the remains of the aboriginal natives of that region; the *Shelliks*, *Tibboos*, and *Tuareks*, the principal tribes of the desert, who are likewise, probably, of the same Encege. The uncultivated low country of Moghreb is occupied by numerous tribes of *Arabs*, while the cultivated districts and the towns, along with a narrow strip of country on the southern skirts of the Sahara, between the desert and the Kawara, are possessed by the *Moors*, a swarthy race, apparently sprung from an intermixture of the aborigines with Phœnician, Roman, Gothic, Vandalic, Arabic, and Turkish blood. Turks of pure lineage are found in Barbary, and also a great many Jews. In the region of the Nile there are likewise many varieties, chiefly Caucasian, though some are apparently Ethiopic. The great body of the inhabitants of Egypt are of Arabic origin, while their rulers are Turks; the deserts on both sides of the Nile are possessed by roving Arabs; and the ancient Egyptians are represented by a few thousand scattered *Copts*. The Abyssinians, or at least the lately dominant race in that country, are apparently the remains of a colony from the eastern shores of the Red Sea; but they are now pressed upon and hemmed in by African races of unknown origin and lineage. Nubia is occupied by several very mixed races, Negro as well as Caucasian, and varieties of the latter are found along the coasts of the Red Sea, and the Gulf of Aden, as far at least as Cape Guardafui. We find in South Africa, beyond the country of the proper Negroes, two distinct races at least, the Caffers and the Hottentots, who cannot very well be referred to either the Caucasian or the Ethiopic class. The Caffers are a tall, well-proportioned, handsome people, nearly approaching Caucasians in figure, features, and expression, but they have thick lips, and curly though not woolly hair, and their complexion is a blackish grey, or, in some cases, even jet black. The Hottentots, on the contrary, are rather an ugly race; their hair is black, sometimes brownish, very short and woolly; but their skin is dark brown or yellow, and not black. They are the original possessors of the country which extends east and north of the Cape of Good Hope; having for their eastern neighbours the Caffers, varieties of whom extend along the coast from about Algoa Bay to Soffala, but how far inland to the north-east is unknown. Of the languages of these various races very little is known; M. Balbi has, nevertheless, contrived to arrange them all into great ethnographical divisions, and has presented us with the following

Table of the Classification of the People of Africa according to their Languages.

The REGION OF THE NILE contains the following Families or Stocks:—

The EGYPTIAN FAMILY: the *Copts*, who are the descendants of the ancient Egyptians. After the introduction of Islam, their language was gradually replaced by the Arabic, and became entirely

extinct towards the middle of the seventeenth century. With respect to language, the Copts should be regarded as Arabs, and as a branch of the Semitic family. It appears, nevertheless, that in the mountains of Math:nothia, near the Gulf of Khabz, and in a district of Soudan, dialects of their language are still spoken.

The NUBIAN FAMILY: the *Noubah* and the *Kenouz* in Nubia. Several thousand Kenouz are found in the principal towns of Egypt, where they are improperly called *Barbary*, *Berebers*, or *Barabra*. It is the features of this family that are seen on the monuments as those of the ancient Egyptians.

The TROGLODYTIC FAMILY: the *Bishareens*, the *Haddendou*, the *Hammalch*, the *Amurer*, &c.; the *Adarehs*, of whom the *Bartoum* appear to be the least civilized, but, at the same time, the most powerful tribe; the *Ababdes*, who are confounded with the Bedwin Arabs. This family occupies that part of Nubia which lies east of the Nile.

The SHIHO-DANKALI FAMILY: the *Shiho*, properly so called, who are found near the pass of Assouali; the *Hazorta*, near the pass of Taranta; the *Danakil*, a nomadic race on the coast from Bab-el-Mandeb to Arkeko, the most powerful tribe of which are the *Dumhoeta*; the *Adavel* possess the country between Bab-el-Mandeb and Zeyla.

The SHILOUKS, known also by the names of *Nouba* or *Fongi*, live along the Bahr-el-Abiad and in Sennaar, of which they were the dominant people till the recent conquest by the Egyptians.

The TCHERET-AGOW, occupy the centre of Abyssinia.

The FURIANS, who form the mass of the people of Dar-Fur.

The Region of MOGHREB presents but a single family, to which belong all those of its inhabitants who can be regarded as aboriginal:—It is

The ATLANTIC FAMILY: the *Amazighs*, called improperly *Berebers* or *Berabers*, and also *Shellukhs*, *Aucyrs*, &c.; who occupy the high valleys of the Atlas, and a portion of the plains in Morocco, Algeria, and Tunis, and are divided into many tribes, some of which are quite independent: the *Tauricks*, a numerous and warlike people, spread over the middle part of the Sahara; the *Tilboos*, who possess nearly the whole of the eastern Sahara; the people of *Surah* and *Augela*; the *Shellukhs*, in the southern part of Morocco, where most of them live under the rule of independent chiefs.

SOUDAN or NEGROLAND presents the following families:—

The VOLORS or IOLORS, who are represented as the finest and the blackest of all the negroes; they possess the kingdoms of Bourb-Iolof, Cayor, and Baob, and form the majority of the people of Bondou, Lower Yani, and Salum.

The MANDINGO FAMILY: the *Mandingoes*, a powerful, somewhat polished, and industrious genuine negro race, in whose hands is found almost all the ivory and gold trade. Their original country is the elevated territory of Manding, but they are now widely diffused over all the region between the rivers Gambia and Geba on the west coast, and possess the kingdoms of Bambouk, Kasson, Kaarta, Barra, Kolar, Badibou, Upper Yani, Wooli, Dentilia, and Kabou. They are also the most numerous, and were the dominant people of Bambara before the division of that kingdom. They possess likewise Kankan, Sambatikilia, Time, and other districts. To this family also belong the *Sonsou* or *Soozes*, who occupy the coast between the Rio Nunez and the Kissi, and other parts of this region.

The FOULANS or FELLATAHS, called also *Foulans*, *Tellins*, *Poules*, &c., a very numerous and powerful people, who possess Fouta-Toro, Bondou, Foutah-Jalo, Fouladou, Brouko, Wasselah, Sangara, and other countries, besides the large empire of the Fellano or Fellatahs in central Soudan. They have not the extreme negro character; they want the deep jet hue, the flat nose, and the thick lips; their features, on the contrary, are high, with an olive tint, and an agreeable expression; they are probably sprung from the intermixture of the Atlantic family with the proper negroes.

The JALONKES, who form a considerable part of the population of Fouta-Jalo, Kouronia, Baleya, Firia, Sangara, Soulemana, and Bouré.

The KISSOURS in the kingdom of Timbuctoo.

The KALANNAS, the people of the kingdom of Kalanna.

The HAOUSSA FAMILY: the *Haoussas*, the principal people of Kashna, Gouber or Ghoober, Kano, Doury, and other parts of the wide region of Haoussa, which forms the centre of the Fellatah empire. The YARRIBAS, the dominant people of Yarriba.

The MANDARAS, who occupy the country to the south of Bornou.

The BAGHERMENS and the MOBBAS, the dominant people of Baghermeh and Mobba, in central Soudan.

The BORNOUAN FAMILY: the *Bornouans*, who form the principal mass of the people of Bornou, and some other districts now separated from the empire of Bornou.

The TIMMANIES, who live between the river Scarcies and Cape Shilling, in the neighbourhood of Sierra-Leoné.

The BOULLAM, to the south-east of the Timmanies, along the coast and in the adjacent islands.

The ASHANTEE FAMILY: the *Ashantees*, the dominant people of the empire of Ashantee, and the occupants of most of their tributary or vassal kingdoms.

The DAGOUNBA FAMILY: the people of Dagoumba, vassals of the Ashantees.

The AKRAS or INKRANS, in the kingdom of the same name, tributary to the Ashantees.

The KERRAPEES, a numerous people, divided into several petty states, almost all tributary to the Ashantees.

The ARDRAH FAMILY: the *Dahomeys*, the dominant people in the kingdom of Dahomey; the *Judahs*, tributaries of Dahomey, the *Ardrahs*, tributaries to Yarriba; the *Benins*, the dominant people in the great kingdom of Benin.

The KAYLI FAMILY: the *Kayls* and the *Gungoumes*, in the kingdoms of Kayli and Gungoume, inland from the coast of Gabon.

The CONGO FAMILY: the people of Congo, Sonho, Cucong, Loango, Mayumba, Oundo, &c., who speak different dialects of the same tongue; the people of *Ilo*, *Concabella*, and *Sala*, whose language is a mixture of Abounda and Congo. The *Molours*; the people of *Mouangama*, *Muekingi*, *Humé*, *Cassanga*, *Cutabo*, *Ginga*, *Holo-ho*, *Ealundo*, *Bihé*, and Portuguese Angola, all speak dialects of the Abounda language.

The BENGUELA FAMILY: the people of *Benguela*, subjects of Portugal; the people of *Quisama*, *Libolo*, *Quigné*, *Nano*, *Humbe*, *Monganguela*, &c.

SOUTH AFRICA contains the following families:—

The CAFFER or KAFFIR FAMILY: the *Koussas*, the *Tambookies* and the *Mambookies*, on the coast; the *Hetchuanas*, subdivided into *Briquas*, *Tammahas*, *Barrolongs*, *Maquainas*, *Morolongs*, and *Gokas*, inland.

The HOTTENTOT FAMILY: the *Korannas*, the *Gonaquas*, the *Namaquas*, the *Damaras*, and others, who are the Hottentots properly so called; the *Saals*, commonly called *Boxjesmans* or *Bushman*, the least civilized of all the known tribes of Africa. They occupy the wildest parts of the country beyond the frontiers of the Cape Colony.

EASTERN AFRICA exhibits the following families, several of which extend into Soudan and the region of the Nile:—

The MONOMATAPA FAMILY: the *Mongas*, on the lower Zambeze; the *Bororo*, on the middle Zam-

beze; the *Movizas*; the *Maravi*, who are now the most powerful people of the late empire of Monomatapa. The *Macouas*, a very powerful negro race, who occupy the country to the westward of Mozambique, along the coast from the Zambeze to Melinda. The *Monjous*, one of the ugliest of the negro races, live in the interior, contiguous to the southern Macouas. The *Sowael* or *Sawauli*, a very powerful negro race who are found along the coast from Magadoxo to opposite Mombaza.

THE GALLA FAMILY: the *Gallas*, a numerous and powerful race, celebrated for their incursions and conquests, which made them masters of a great part of the late empire of Abyssinia. They appear likewise to occupy all the country between Abyssinia and the western frontiers of the states which lie along the coast between Melinda and Magadoxo. The *Mouzimbes* or *Zimbés*, a nomadic race who traverse the vast country watered by the supposed course of the river Zebeé, and have acquired notoriety by the terrible incursions which they made towards the end of the sixteenth century as far as Melinda and Quiloa.

The **SOMALIS** inhabit the coasts of Adel and Ajan, along the sides of the great triangle of which Cape Guardafui may be considered as the apex.

The **GINGIROS**, who inhabit the kingdom of Gingiro, and whom old accounts place to the south of the mountains of Abyssinia, along the banks of the Zebeé.

The **NINEANAI**, who occupy Bomba, of whom nothing certain is known.

Besides these families, who may be regarded as the aborigines of Africa, there are several other races who have at various periods settled in different parts of the continent, and some of which have become numerous and powerful. The people of Abyssinia, who speak the Gheeze or the Tigre languages, belong incontestably to the Semitic stock; but appear to have been established in that region before the period of history. The *Arabs*, at a very early period, and, more lately, during the great conquests of the first Khalifs, invaded the region of the Nile and Moghreb, and spread even into Soudan, where they are found in great numbers. In the course of time they have introduced exclusively their language into Egypt, a great part of Nubia, along the Nile in Shendy, Damer, Sheygya, &c., in all the towns and great part of the country of Barbary, and part of the Western Sahara. They have also established themselves in several states of Soudan, as Dar-Fur, Mobba, Baghermeh, Bornou, and even within the Fellatah empire. They are also found in districts on the west coast and in the adjacent isles. The *Omanbe* or *Ottoman Turks* have become the dominant people in Egypt, Tripoli, Tunis, and Algiers; and various European nations have also formed settlements along the coasts, and mixed with the natives. The Portuguese settlements are in Lower Guinea and along the east coast. A large territory, near the Cape of Good Hope, is occupied by Dutch and British settlers. The English, Danes, and Anglo-Americans have settlements at various points on the coasts of Guinea; the Spaniards possess Ceuta; and the French have conquered, and will probably colonize the coasts of Algiers.

RELIGION.—Fetichism, or the worship of idols, is the religion of the greater part of the Africans, and is professed by almost all the negroes, and by some branches of the Atlantic family. These people, who see in the most common things which surround them objects of adoration, appear, in general, to admit of a good and a bad principle; they have lucky and unlucky days; their priests are dexterous jugglers, and profess to secure both men and beasts from the influence of evil spirits. Islam is predominant in all the great states of Moghreb, in Egypt, the greater part of Nubia, and among the Troglodytic family, although the Ababdes are not very strict in their observances; and the Danakil have neither priests nor mosques. It seems also to be professed throughout the north-eastern and central parts of Soudan; and the Mandingoes and other tribes have carried it even to the shores of the western ocean. Christianity is professed by the Copts in Egypt, and also in Abyssinia, where, however, it is mixed with many superstitious and idolatrous rites and notions. The European colonists profess, of course, the religion of their native country, and are protestant or popish, according to their descent. Judaism is maintained by a great number of Israelites throughout Barbary, Egypt, and Abyssinia; and there are a few Guebres, or votaries of Magism, in Mozambique.

GOVERNMENT.—All the various forms of government are found in Africa. The little Arab state of Damer, in Nubia, is a monarchical theocracy; Fouta-Toro and Fouta-Jalo, in Senegambia, are oligarchical theocracies; and the new kingdom of Sus, in Moghreb, is a feudal oligarchy. The governments of Morocco, Benin, Yarriba, and many others, are despotic, and the kingdom of Dahomey groans under a species of despotism of which there are few examples in the world. All the first-born males belong to the king, who causes them to be brought up publicly; he has even the monopoly of all the women of his kingdom, and every man who wishes to marry is obliged to pay him 20,000 cowries for a wife. The king of Moropia is perhaps the most absolute of all potentates, for he even prescribes to his subjects the time for their amusements. Several of the kings and chiefs of Guinea and Eastern Africa also exercise the most absolute power; they send their emissaries to steal men from whatever country they choose, and afterwards dispose of them to strangers in exchange for goods. It would, however, be a tedious task to mention in detail the governments of the numerous petty nations which people this continent. The governments of the great states are all despotic; and, of the smaller communities, many are patriarchal, and vary in different degrees between despotism and anarchy.

INDUSTRY AND COMMERCE.—Though the more civilized people of Africa are very far from equaling those of Asia in respect of industry, they are nevertheless not so degraded as is commonly believed. The people of the principal towns of Egypt, Barbary, Adrah, Dagoumba, Ashantee, Bornou, and others, carry on various trades, and excel in the manufacture of different kinds of cloth, and in the dressing of skins. The district of Tahlelt and several towns in Morocco, and Kasina in Soudan.

are celebrated for the beauty of their leather (Morocco) and the preparation of skins. For several years past the spun cotton of Damietta, Mansurah, Mehallet-el-Kebir, Fouah, &c. in Lower Egypt has acquired great importance. At the Isle of Zerbi, in Tunis, linen cloth and shawls are manufactured, which are in demand throughout Northern Africa. The negroes are in general bad hunters; but they are excellent fishers, good forgers, and expert goldsmiths; they can give steel a good temper, and reduce gold wire to an extreme fineness. The Foulahs and the Sousous work iron and silver; are dexterous workmen in wood, leather, and dye stuffs; and indeed among many of the negroes the art of dyeing is carried to a certain degree of perfection. The people of Loggum in Bornou make cotton cloth of the finest and closest tissue; and the goldsmith-work of Asantee, Dagoumba, Shendi, Jenneh, Timbuctoo, and other countries and towns of the interior enjoys a great celebrity over all the continent; the work being of admirable finish and resembling flagree. The Bushmen of South Africa are good forgers, armourers, potters, and carvers; the Maquainas are still farther advanced, and work in iron, copper, and ivory. It is said the people of Haoussa make their own fire-arms. Several tribes of South Africa work copper mines; and others of them excel in the manufacture of *pagnes*, mats, and baskets, which are exported for the supply of the interior countries. Some of the Moors of the Sahara are good dyers, armourers, and goldsmiths. The people of Wlydah, in Guinea, and the Molous in Congo, even cut precious stones and make of them pendants for their ears, bracelets, &c.; and in Bornou it is said that there are people who cut precious stones and engrave seals. In spite of the obstacles presented by mountains and deserts, and the want of navigable streams, Africa has exhibited, from the remotest antiquity, a vast inland commercial movement, which still forms one of the most characteristic features of the continent. Timbuctoo, Jenneh, and other central towns of Soudan, are visited by caravans which set out every year from the extremities of Africa to exchange the produce of their own countries or of Europe and Asia, for that of central Africa. Mourzouk, in Fezzan, and Cobbé, in Dar-Fur, are, as it were, the northern and the eastern gates of Soudan; and for several years the people of Angela have become the carriers of a great part of the trade of Soudan with Egypt and Tripoli. Since the Maroccans lost their influence in Timbuctoo, the Arabs of Suz have possessed themselves of all the trade which that city carried on with Morocco, and are become, like the Fezzaners and Furiars, the immediate agents of the commercial enterprise of Soudan with Moghreb. The Foulahs and the Sousous, and particularly the Mandingoes, carry on its trade with the coast of Senegambia, and the Dagoumbas and Ashantees with the coast of Guinea. In the region of the Nile, Cairo is the great mart for the trade between Africa and Asia; and this great city, by means of the people of Angela, Fezzan, and Dar-Fur, and the merchants of Khartum and Berber, has commercial relations with the cities of Tunis, Algiers, Fez, and Morocco, and the great towns of Soudan, Nubia, and Abyssinia. The town of Berber, likewise, has become the great mart between Soudan, Abyssinia, Nubia, Egypt, and Arabia; and Commassie has likewise become the mart of the trade between Soudan and the coast of Guinea. Speaking generally, we may say that commerce is to a certain extent the principal occupation of several African nations. Omitting the Jews, the Mandingoes, the Fezzaners, the Furiars, and others already mentioned, the following are the principal trading people: the Serawoolis in Senegambia, who have long been famous for their address and intelligence; the Somaulis, who possess several ships, and exchange the produce of southern Abyssinia and the eastern corner of Africa for that of Arabia; the Ghibberti, a tribe of Arabs among the Dinkali, who are the agents of almost all the trade of Abyssinia with Asia; the Movizas, who manage nearly all the commercial business of the interior of Monomotapa. It is curious also to see the *Laouber*, a people among the Iolois, whose manners and customs resemble those of the gipsies; and the *Kroomen* of the Grain coast and some other negroes, living between Cape St. Ann and Cape Palmas, who leave their country for certain periods to carry on trade, or hire themselves as seamen on board of European ships; and also, to find a great number of the Foulahs and Kenouzs performing the same active and laborious duties which are performed in Europe by the Savoyards, Auvergnats, Tyrolese, Gallegos, Friulose, Irish, and others. The most important commercial towns in Africa are: Fez, Morocco, Mogadore, and Tangier in Morocco; Algiers; Tunis; Tripoli; Mourzouk and Ghalames in Fezzan; Cairo, Alexandria, Khartum, Berber, Suakim, Cossair, and Massuah in Egypt and Nubia; Adowa in Abyssinia; Angornou and Bornou, Kano, Saccaoto, and Kashna in Central Soudan; Koufa in Nyffé; Commassie, Grand-Bassan, Cape Lahou, Yandi, &c. in Ashtantee; Timbuctoo, Jenneh, Sego, Sansanding, Kankan in West or Soulan; Cape Coast, Elmina, Bonny, Calabar, &c. in Guinea; St. Louis, at the mouth of the Senegal; Freetown, at Sierra Leone; Cassanga, Yanvo, Bibi, Bailound, Missel, Holo-ho, &c. inland; Cabenda, Ambriz, &c. on the coast of Congo; St. Paul de Lounda, Benguela, Mozambique, &c. in Portuguese Africa; Berbera, in the county of the Somaulis. The articles most in demand in the interior of Africa are: pistols, muskets, sabres, Venice glassware, of which incredible quantities are still imported, coarse woollen and silk stuffs, pottery, brass, printed cottons, muslins, writing-paper, coral, razors, salt, perfumes, and spices. The principal articles of export are: gold-dust, ivory, rice, wheat, gum, pepper, ostrich feathers, raw hides, dressed hides, morocco leather, cotton, indigo, dates, senna, wax, aloes, copper, natron, salt, teakwood, &c.: to which we must still add SLAVES. These formed, not many years ago, the staple article of African trade, and, in spite of all the laws and regulations made to the contrary, the trade is still carried on with the greatest activity on both the eastern and the western coasts, and even across the desert by way of Tripoli and Egypt. The internal slave-trade, always great, appears even to have increased in consequence of the difficulties attending exportation by sea. The rulers of Bornou, Baghermeh, Dar-Fur, and other Mahometan states, make frequent incursions upon their idolatrous neighbours, for the purpose of procuring slaves for sale; and even the pseudo-christian Abyssinians seize the Shangallas for the same unhalloved purpose; and we may add, to their shame, that the Anglo-Americans, and Brazilian-Portuguese, are now the grand encouragers of the traffic. Among the different kinds of African money, salt, tibbar, and cowries deserve attention. Tibbar or gold-dust, of which the greater part is gathered in Central Soudan, is current throughout nearly the whole of Africa, where, in places the most abundant in gold, at Sansanding, for example, the value of this metal in proportion to that of silver is as 1½ to 1, while in Europe it is as 15 to 1. The want of salt in several parts of the interior, and the difficulty of transporting so bulky an article, have so enhanced its value, that pieces of salt are used for money in many places. In the country of the Mandingoes, for instance, a piece of salt 2½ feet long, 14 inches broad, and 2 inches thick, is worth from one to two pounds sterling; in Dar-Fur 12 pounds weight of salt are equivalent to a slave of 14 years of age; and in the market of Antalaw in Tigré two or three pounds of salt are worth the thirtieth part of a dollar; at a greater distance from the place where it is produced, the value augments in proportion to the distance, till, according to Alvarez, a pound of salt is worth its weight in gold! Cowries, of no intrinsic value, are nevertheless the most common money in Soudan and Guinea, and the table-land of Senegambia. These pretty little shells, which are fished in immense quantities at the Maldives, have, in the interior of Africa, a value nearly ten times their worth in Bengal, where 2500 cowries are only equivalent to one shilling. The principal current money in Abyssinia consists of pieces of cotton worth a dollar; and, when a smaller sum is required, the piece is cut into proportionate lengths.

SOCIAL STATE.—The preceding details exhibit in a great measure the social state of the people of Africa; but the following additional particulars will serve to give a more complete, though neces-

sarily a very imperfect view of this important subject. Africa presents several great indigenous centres of civilization, while for others it is indebted to Europe and Asia. The first and the most ancient, as well as the most important, is found in the region of the Nile, where, before the dawn of history, the Egyptians and the people of Meroë appear to have cultivated the arts and sciences, and where they have left the most imposing monuments of their industry and skill, along the banks of the Nile and the Azrek, and in the neighbouring oases. The ancient civilization of Axum and Gondar appears to have emanated from Meroë, while the social state of middle and lower Nubia, and the oases adjoining Egypt, appears to have originated from Egyptian colonies. This, at least, is the opinion of M. Balbi; but other antiquaries maintain that Egypt itself derived all its art and science from Ethiopia, or the upper region of the Nile. How civilization originated in Ethiopia, or in Egypt, if it took its rise there, it is impossible to discover. The other centres of civilization which are found in Soudan, deserve, no less than the first, the attention of philosophers. The particular character of the social system among the Foulahs and the Sousous in Senegambia; the progress made by the Ardrahs and their neighbours, before they were invaded by the Dahomeys, a progress which had carried them even to the invention of a kind of writing which may be compared with the quippos of Peru; the imperfect civilization of the Dahomeys, Beninese, Dagounbas, and other nations of Guinea and Congo, of the Movizas, Bushmen, Macquins, and others in south Africa, afford some reason to believe that these people, free from every foreign influence, have followed a particular direction in the development of their intellectual faculties, and have advanced but very slowly towards civilization. Among the Ashantees, the most powerful and most polished people of Guinea, there are several traditions, customs, and laws, which, as Bowdich thinks, may be attributed to their ancient connection with Carthage and Egypt; and this remark may be applied to several other nations of inland Africa. The people of Tombuctoo, Bornou, Kashna, Haoussa, and other countries of Soudan, appear to have been indebted to the Arabs, if not entirely, at least in a great measure, for the state of civilization, imperfect as it is, in which modern travellers have found them. As to the ancient and modern tribes of the great Berber or Atlantic family, which has successively come in contact with the Phenicians, Carthaginians, Greeks, and Romans, and afterwards with the Arabs, it is natural to believe that it is to these polished nations that they owe their small degree of civilization. To these two kinds of indigenous civilization we have to add two others foreign to Africa, into which, since the dawn of history, at four successive epochs, they have been imported by two European and two Asiatic nations, namely, the Carthaginians and the Arabs, of the Semitic family, and the Greeks and Romans of the Græco-latin family. But the influence of the Carthaginians, Greeks, and Romans, never extended beyond the Sahara. Towards the fourth century, Christianity was established in north Africa, along the slopes of the Atlas, in Nubia and Abyssinia, in the latter of which it still nominally prevails. Three centuries later the Arabs overran all northern Africa, crossed the Sahara, and passed along the east coast as far as Soffala, everywhere introducing Islam and its imperfect civilization; and even yet, in those countries, the Arabic language is almost the sole vehicle of civilization and science. But, beyond the pale of Islam, the whole of Africa is barbarous; most of the people are in the lowest state of savage life; and the modern Europeans have, for a period of three centuries, instead of endeavouring to introduce among them the civilization and the religion which themselves possessed, rather treated them as beasts, carrying them away in millions, as slaves; fostering all their evil propensities, and spreading desolation and misery over every region within the reach of their nefarious traffic.

Divisions.—Our imperfect knowledge of the geography of Africa does not enable us to divide the continent into very distinct geographic regions; and the great number and the uncertainty of its political divisions prevent us from taking them as the basis of our descriptions. We shall therefore consider Africa under the following arbitrary heads of division: the *Region of the Nile*, including Abyssinia, Nubia, and Egypt; *Moghreb*, including Barbary and the Sahara; *Soudan* or *Negroland*, including Senegambia, Guinea, and the basins of the Kawara and the Tehad; or, in other words, all the region between the Sahara and the ocean, eastward to Abyssinia, and southward to the central mountains of the Moon; *Southern Africa*, including that portion of the continent which lies to the south of Abyssinia and the mountains of the Moon; and, lastly, *the Islands*.

REGION OF THE NILE.

THIS wide region comprises that portion of Africa which forms the western shore of the Red Sea, extending from 7° to 32° N. lat., for about 1750 miles, and between 30° and 43° E. long., with a breadth varying from about 1000 miles at the south, to 130 miles or less at its northern extremity. It is usually considered as divided into three large countries, named *Egypt*, *Nubia*, and *Abyssinia*; each of which will form the subject of a separate section, though the greater part of the region is now under the dominion of the Pasha of Egypt.

The grand characteristic of the region is the river NILE, which traverses its whole extent from south to north. According to the most recent information, the remotest sources of this famous river appear to lie in the mountains of the Moon, about 7° north lat. These unite to form a stream, which, under the name of *Bahr-el-Abiad* (White river), flows north-eastward, through Donga or Denka, and the country of the Shelluks, to $15^{\circ} 34'$ north lat., where it receives, on its right bank, the *Abawi* or *Bahr-el-Azrek* (Blue river), from Abyssinia. The White river appears to have been the true Nile of the ancient geographers; but, in modern times, it is only after its confluence with the Azrek that the united stream is known as the Nile, under which name it flows, in a general direction, though with various windings, almost due north, through Nubia and Egypt, into the Mediterranean Sea by two principal mouths. Its principal affluents, besides the Azrek, are the *Maleg* and the *Tacazze* or *Atbarah*, both on the right, from Abyssinia; but from the left no important affluent is known. In one respect the Nile is distinguished from every other river; for, between the junction of the Tacazze and the sea, a distance of 1500 miles, it does not receive a single affluent, but proceeds in solitary grandeur through the desert, fertilizing only a narrow strip along its banks of a few miles in breadth, which constitutes the cultivated portion of Nubia and Egypt. The Bahr-el-Abiad has been explored by M. Linant, to the extent of 132 geographical miles above its confluence with the Azrek. As he sailed along he sounded occasionally, and found always from three to four fathoms; the river was, in many places, a mile and a half wide, and even then was far within its banks, which sometimes seemed four miles distant from each other; but even this is not the full width at its greatest height. There are several islands in the stream, and these as well as the banks are covered with large trees of a splendid green, in the higher parts no longer obscured with brushwood, but standing in groves amidst a rich herbage of the finest hue, as in an English park. But, a few miles above Aleis, where Linant stopped, the river, he was informed, is only knee-deep, in consequence of its great width. Of its higher course very little certain information has yet been received. Ibrahim Kashef, an officer of the Pasha, travelled for 35 days along its banks, partly on both sides; and at the highest point he reached, probably 10° N. lat., 29° E. long., the river was shallow, full of islands, six hours in breadth, but with no mountains in sight. The great breadth, though perhaps exaggerated, and not very intelligibly described, leaves little doubt that the river, even at this extreme point, was much broader than at its junction with the Azrek, and seems to indicate that its conformation is of an extraordinary kind, its origin being perhaps in a lake or lakes, supplied by streams from a distant range of mountains. The existence, moreover, of lakes having a communication with the river only during floods, is rendered highly probable by a passage in Linant's Journal, which states that at the time of the inundation of the Abiad, an incredible quantity of fish is brought down by the current. Russeger learned, in 1837, that the White river rises in the country of the Galla and Shangalla, and flows in a direction parallel to the Azrek. In 1841-2, Messrs. D'Arnaud and Sabatier ascended the stream 500 leagues above Khartum, reaching the latitude of $4^{\circ} 42'$ N., almost in the meridian of Cairo. They saw no mountains, though they passed the place usually assigned to the Mountains of the Moon; but they observed immense marshes and large islands. It discharges a greater quantity of water than the Azrek; and, though somewhat narrower at the confluence than it is higher up, it is even in this respect equal to the other. The colour also of its water is that which characterizes the united stream in the dry season, the Azrek being then of a greenish hue, while the Abiad is always white, and has a soapy appearance, even during the inundations. But, at the confluence, the Abiad is only 1800 feet across, and, further down, the general aspect of the river has much more of the character of the Azrek than of the Abiad; in every respect resembling the former as to the nature of its banks and adjoining scenery, width, sinuous course, sand-banks, and the want of large shells, such as are only to be found on the banks of the Abiad. Below, also, as along the banks of the Azrek, there are comparatively few waterfowl, while near the Abiad these are innumerable — (*Jour. R. Geog. Soc.* vol. II.) The Bahr-el-Azrek, however, has by many been considered to be the Nile. It rises from a small marshy plain, in the country of the Agows, 125 miles S.S.W. of Gondar, and takes a circuitous course through the lake of Dembea to the south-east, south, west, and north-west, in which last direction nearly it continues through almost 6° of lat. till it meet the Abiad. It was the source of this river that was visited by Bruce, as the source of the Nile; and it is indeed well entitled, from its size, and the length of its course, to dispute the honour with its rival; at the confluence, it is at least as wide though it discharges a smaller quantity of water. In the dry season its water has a greenish hue; but during the annual flood, it becomes reddish, from the nature of the mud brought down by the *Bahr Tountat*, which falls into the Azrek in the province of Fazuolo. The Azrek is the *Asapus* of the ancient geographers; and its principal affluents are: the *Dinder*, and the *Rehat*, on the right; the *Roma*, *Yabous*, and *Tountat*, on the left. The only affluent of the Nile, below the great confluence, is the *Tacazze* or *Atbarah*, on the right, in lat. $17^{\circ} 40'$ N. This stream has its source in the high mountains of Lasta, and forms with the Nile the famous peninsula of Merodé. Near its confluence with the Nile it receives on the right the *Bahr Mogren*, which brings down such a quantity of black earth that it affects the general colour of the river. After the junction of the Abiad and the Azrek, the Nile makes a remarkable bend, like a great S, flowing 200 miles south, and then turning again to the north, its width varying exceedingly from more than a mile to less than a quarter of a mile, and its channel being studded with innumerable islands, clothed with the richest vegetation. In its progress through Nubia it forms six cataracts. The first occurs about midway between Halfaiah and Shendi; the second, below Berber; the third, above Meraweh; the fourth, at Hannek; the fifth, at Wady Halfa, is formed by a multitude of rocky islands, among which the river dashes amidst clouds of foam, and is tossed in perpetual eddies; the sixth, and lowest, between Philæ and Elephantiné, 21° N. lat., where there is a considerable fall, the greatest height, however, being only five feet perpendicular; but the bed of the river is for several miles thickly strewn with granite rocks, and narrowed to half a mile. These cataracts, however, are usually numbered upwards, the sixth being reckoned

the first, and the first the sixth. The Nile consists of too large a body of water to be lost in the immense desert through which it flows, but it diminishes gradually as it proceeds northward. It is narrower at Cairo than at Siout; and narrower at Siout than at Thebes; but from Wady Halfa to Thebes, its volume continues apparently the same. An immense quantity of the water is diverted from the river, and exhausted in artificial irrigation; and, when the great canals of Egypt were kept in good repair, the river must have been still more diminished towards its mouth. At Assouan its width is about 3900 feet; at Hajar Silsili, only 1700; at Oudi, 36 miles above Cairo, 2900; at Rosetta, 1800, and at Damietta, only 800.

§ 1. EGYPT.

SITUATION AND EXTENT.—This ancient and celebrated kingdom, is situate in the north-east corner of Africa, between $24^{\circ} 3'$ and $31^{\circ} 37'$ N. lat., and 29° and $35^{\circ} 25'$ E. long.; but of this large space of 150,000 square miles, little more than a tenth part is occupied by cultivable soil, the remainder consists of salt marshes, sandy plains, or rocky and barren mountains. The cultivable land of Egypt consists of the long narrow valley of the Nile, which measures above 500 miles along the course of the river, with an average breadth of only eight or ten miles; and a large triangular plain, measuring about 150 miles along the sea, from which it extends about 100 miles inland to the point where it joins the valley. Besides these, there is likewise the province of Faïoum or Fyoun, which is watered by a branch of the Nile, and comprises about 340 square miles.

The average breadth of the valley of the Nile between Cairo and Edfou is only about 7 miles; and that of the cultivated land, whose limits depend on the inundation, scarcely exceeds $5\frac{1}{2}$, being in the widest part $10\frac{3}{4}$, and in the narrowest, 2 miles, including the river. The extent of the Delta may be estimated at 1976 square miles, and the whole northern district, capable of being irrigated, including the Delta, at 4500 square miles, or double the whole arable land of the valley, which may be computed at 2255 square miles. That the irrigated part of the valley was formerly much less extensive than it is at present, at least wherever the plain stretches to any distance east and west, or to the right and left of the river, is evident from the fact of the alluvial deposit constantly encroaching in a horizontal direction upon the gradual slope of the desert; and, as a very perceptible elevation of the bed of the river, as well as of the land of Egypt, has been constantly going on, it requires no argument to prove that a perpendicular rise of the water must cause it to flow to a considerable distance over an open space to the east and west. Thus the plain of Thebes, in the time of Amunof III., or about 1430 B. C., was not more than two-thirds of its present breadth; and the statues of that monarch, round which the alluvial mud has accumulated to the height of nearly 7 feet, are founded on the sand which once extended to some distance in front of them. How erroneous, then, is it to suppose that the drifting sands of the encroaching desert threaten the welfare of this country, or have in any way tended to its downfall; and how much more reasonable is it to ascribe the degraded condition to which Egypt is reduced, to causes of a much more baneful nature, foreign despotism, the insecurity of property, and the effects of that old age which it is the fate of every country, as well as of every individual, to undergo. It is true that the sand has accumulated about Bahasa, and on the irrigated land in its vicinity, as well as about Kerdasseh, and a few other places, owing to the form of the valleys, which open in these spots from the Libyan desert, but this effect is not general throughout the valley of the Nile, even on this side of the river; and the progress of the sand can never be very great in any part of Egypt, however it may extend itself in Nubia over the exposed and narrow strip of land which the western bank presents above the cataracts of Assouan. — (*Wilkinson*, I. 218, 219.) For the satisfaction of those who will be content with simple facts it may be sufficient to state, that the breadth of the irrigated portion of the valley is much more extensive now than it was at any former period, and that this increase will continue in spite of the very few local impediments which the drifted sand may accidentally offer; and it is not irrelevant to observe, that no soil is better suited for many kinds of produce than the irrigated edge of the desert (which generally consists of a clay mixed with sand) even before it is covered with the fertilizing deposit of the inundation. — (*Ib.* 222.) From the first cataract of the Nile to the mouth of the river at Rosetta, the perpendicular stratum of soil decreases in thickness as it approaches the sea; and thus at Elephantiné the land has been raised about 9 feet in 1700 years, at Thebes about 7, and so on, gradually diminishing to the mouth. There, indeed, the deposit is lessened in a very remarkable degree, much more than the regular decreasing ratio, in consequence of the greater extent of the land, east and west, over which the inundation spreads; so that in a section representing the accumulated soil and the level of the low Nile, the angle of inclination would be

much smaller from the fork of the Delta to the sea, than from the Thebaid to the Delta. The formation of Egypt and its extensive Delta are beyond the reach of inquiry, and of a date long anterior to the period at which that country or Ethiopia was inhabited. In the times of the earliest Pharaohs, of whom any record now remains, the whole of Lower Egypt seems to have been densely inhabited (*Ib.* 9, 11); and positive facts contradict the assumption that the Delta has been protruded into the sea, to any great extent, within the age of history. If it had ancient cities, which were upon the sea-coast 3000 or 4000 years ago, and still are so, they ought now to have been far inland.—(*Wilkinson, Jour. R. Geog. Soc.* IX. 432.)

GENERAL ASPECT.—The valley of the Nile is bounded on both sides by ranges of mountains, which follow the course of the river from the cataracts to near Cairo, where they diverge; the western range extending from that point north-westward to the neighbourhood of Alexandria, while the eastern range stretches eastward to the head of the Red Sea. The general character of the western range is that of a limestone formation, containing numerous fossil shells; but from Esneh to Assouan the formation is sandstone alternating with limestone, and containing also slate and quartz of various colours. Above Assouan the formation is granite, mixed with syenite and some other crystalline primitive rocks. The eastern range differs somewhat in character, as it rises more abruptly, and often approaches close to the margin of the river. The limestone extends as far south as on the western side; but the granite formation commences earlier. Near Assouan the granite alternates with decomposed sandstone; and in the same neighbourhood are found the granite quarries which furnished the materials of the ancient temples, obelisks, and statues. The elevation of these mountain ridges is only a few hundred feet, and the northern branch, which extends from Cairo to Suez, the Jebel Mokattam, and Attaka, does not exceed 400 feet. In both ranges there are numerous ravines which afford passages from the banks of the Nile into the eastern and the western deserts. The great valley itself has the same inclination as the waters of the river, which is about two inches in the mile; so that Assouan, being about 640 miles from the sea, should be only about 107 feet above its level. The slope, however, is not gradual through all this distance. It is greatest immediately north of Assouan, where the fall of the water is seven inches and a half in the mile, and diminishes almost to nothing as it approaches the Delta. The bed of the river, however, does not lie along the *bottom* of the valley, but along the top of a narrow ridge formed by the continual deposit of mud during the inundations; and the same is the case with the Bahr Joussef, whose channel likewise forms a narrow ridge, with a hollow between it and the Nile. The banks consist of a succession of rich plains of unequal width, studded with little groves of palm trees, each of which hides a village. These groves, animated by innumerable flocks of turtle-doves, pigeons, and other birds, are surrounded with cultivated land, which is sometimes covered by the inundation; and on the retiring of the waters, or at other seasons, by means of irrigation, is clothed with the richest verdure and the most luxuriant crops.—(*Hoskins' Visit to the Great Oasis, &c.* Lond. 1837.)

At the northern end of the long valley, below the point where the mountains diverge, and between them and the sea, lies the alluvial plain of Lower Egypt, which is almost a dead level, intersected by the two great branches of the Nile. These branches form between them the celebrated *Delta*, a triangular island, measuring eighty miles at its base, and about ninety in a straight line, along each of its other sides, which, however, follow the windings of the river; and are therefore very irregular. On each side of the Delta is a level plain of the same character, the greater part of which appears to have been formerly included within it, when the Nile reached the sea by seven branches. The whole of this plain, beyond as well as within the Delta, is intersected in every direction by numerous canals, which convey the waters of the river to all parts of it, thereby producing a continual verdure; and, during the period of the inundation, a great part of its surface is covered with water. Eastward of the Delta is a singular valley, thirty-nine miles in length by two in width, and containing about 20,000 acres, formed by two parallel mountain ranges which screen it from the sands of the desert. The soil is rich and productive, and is covered with an exuberant growth of shrubs and copsewood. It is crossed by the ancient canal, between the Nile and the Red Sea; and is supposed, with great probability, to have been the land of *Goshen*, where the Israelites were settled. The western part of it is now called *Wady Tomylat*, and the eastern, *Wady Sababyar*. About sixty miles above Cairo, a gap in the western mountains affords a passage for a branch of the Nile into a large district called *Fyoun* or *Faioum*, through which the water flows in numerous streams to the Birket-el-Keroun, or ancient Lake Mæris, converting a large portion

of desert into the most fertile and the most beautiful province of the kingdom. Here the eye is never weary with contemplating the smiling fields, which are covered with a luxuriant and almost tropical magnificence of vegetation, and form a splendid contrast to the barren desert that everywhere surrounds them, and of which they seem to have been once a part. The Faioum is densely peopled, and is never visited by the plague. The aspect of the cultivated parts of Egypt undergoes periodical changes with the seasons. In our winter months, the verdure of Egypt is rich and beautiful. The air is perfumed with the odours of the orange and citron trees, and of innumerable shrubs; and the flocks overspreading the plain add animation to the landscape. The country now forms one delightful garden, though somewhat monotonous in its appearance; for, on every side, it presents nothing but a plain, bounded by whitish mountains, and diversified with clumps of palm trees. In summer, however, it exhibits merely a brown soil, either miry, or dry, hard, and dusty; immense fields under water; vast spaces unoccupied and uncultivated; plains, in which the only objects to be seen are date trees; camels and buffaloes led by miserable peasants, naked and sunburnt, wrinkled and lean; a scorching sun, a cloudless sky, and constant winds which vary only in force. It is not therefore surprising that travellers have differed very much in their descriptions of this interesting country.

Beyond the limits of the cultivated regions are several portions of the deserts which are worthy of notice. In the desert, south-east of Alexandria, are two parallel valleys, called the *Basin of the Natron Lakes*, and the *Bahr-bela-maie*, or waterless river. The former contains a series of six lakes lying in the direction of the valley, the banks and waters of which are covered with crystals of chloride of sodium or sea-salt, and carbonate of soda or natron. The Bahr-bela-maie lies to the south-west of the valley of Natron, from which it is separated by a small ridge; it is about eight miles wide, and is everywhere covered with sand. It is said to join Faioum on the south, and the Mediterranean Sea on the north-west, and is supposed to have once formed the bed of the Nile, or at least of one of its branches; and, to strengthen this conjecture, petrified trunks of trees and fish-bones have been found beneath the surface. The vegetation in both valleys has a wild and dreary aspect; the palms are mere bushes, and bear no fruit. The Natron valley is inhabited by Greek monks, who have there four convents, which serve at once as their fortresses and their prisons. Farther south are several *oases* or *wahs* scattered over the desert, within the nominal limits of Egypt. Their physical character is pretty much the same, consisting of small tracts or valleys irrigated by springs of water, and producing dates; the larger ones yield wheat, rice, barley, clover, liquorice, olives, apricots, vines, pomegranates, and other fruits. The first which occurs, in advancing southward, is the *Little Oasis* or *Wah-el-Bahryeh*, or *Wah-el-Beunesa* or *Behnusa*, three days' journey south-west of Faioum. It pays a yearly tribute of about £643 sterling, and has an armed force of several hundred men to preserve the peace. A short day's journey south of it is the small oasis of *Wah-el-Hayz*; and three days further south is that of *Farafreh*. Westward of Esneh on the Nile, between 29° and 30° E. long. is the *Great Oasis*, called by way of eminence *El Wah*, which extends in length between 24° 30' and 26° N. lat., about 100 miles. It contains many springs and villages, with the ruins of Egyptian, Roman, Christian, and Saracenic buildings. Its chief town is El-Khargeh. Three days' journey westward is the *Wah-el-Dakhleh*, *Dakkel*, or *el Gharbe*, which contains eleven villages or towns, and 6000 male inhabitants. Its principal village, is *El Kasr Dakhel* or *Dakhleh*, in 25° 35' N. lat. and 28° 55' E. long. *Wah-Zerzora*, *Wah Gebabo*, and some others, lie still farther west. But the most interesting of all these *wahs* is that of *Sirah*, 310 miles due west of Benisouef on the Nile, which contains the remains of the celebrated Temple of Ammon, visited by Alexander the Great, and other antiquities; a large and strongly fortified town, with a population of 2000, and several villages. It was conquered by the Pasha of Egypt in 1820. About 25 leagues N.W. of the capital is the salt lake of *Arachieh*, about six or seven leagues in circumference, with a rocky islet, which the Siwahians say contains the sabre and seal of the Great Prophet, or, according to others, the ring, sword, and crown of King Solomon-ben-Daoud, the great magician of the East.—(*Hoskins' Visit to the Great Oasis*, &c. &c.)

The general character of the eastern desert is that of a mountainous region, which, though generally barren and rocky, contains a number of wadies or ravines, fertilized by springs, and clothed with vegetation. Mines of various metals, and quarries of porphyry and other valuable stones are scattered among the mountains. A range of hills, called *Jebel Mokattam* and *Jebel Attaka*, extends from Cairo to Suez; to the south of these are other ridges stretching nearly in the same direction, with inter-

vening valleys; but, at Jebel Tenesep, fifteen miles south-east of Deir Bolos, the mountains diverge into the interior, veering south and south-west, towards the Nile, and are succeeded near the sea by a range of primitive formation which extends southward to Cosseir, at a distance of from twenty to thirty miles from the coast, the intervening space being occupied by low limestone and sandstone hills. *Jebel Ghararib*, in the primitive range, about $28^{\circ} 23'$ N. lat., is estimated at nearly 6000 feet above the level of the sea, and its lofty peaks are said to resemble the aiguilles of Chamouni. South of Cosseir the mountains continue to run parallel to the coast as far as *Jebel Zabarah* or Emerald-hill, which is about eight hours' journey from the coast, and stretch farther south-east to the ruins of Berenicé.

The *Isthmus of Suez* forms one of the most important features of Egypt. It consists of a tract of low lying land, composed of shell limestone rocks, mixed with strata of silicious limestone, and partly covered with sand or salt marshes. In several places the solid strata are scarcely perceptible by their slight undulations. In the northern portion, in particular, there is a vast plain, varied only by the inequalities of the sand-hills. In the middle of its breadth the ridges of the hills shew their bare heads in the form of a series of large steps. It is skirted on the east, the south-east, and the south-west, by the mountains of Arabia and Egypt, and terminates almost in a point at the head of the Red Sea, between which and the Mediterranean is a series of salt lakes and dry hollows, interrupted only by strips of low ground. The breadth of the isthmus in this direction is 378,844 French feet, or about 75 English miles. The surface generally declines from the Red Sea to the Mediterranean, of the latter of which the level is 30 feet lower than that of the Gulf of Suez. There is a similar descent towards the Delta and the Nile, which, in its lowest state, has been found at Cairo to be nine feet lower than the surface of the gulf at low water. But, as the Nile rises 16 cubits during the inundation, its surface is then nine feet higher than the Red Sea at high water, and 14 feet higher at low water. Besides these leading slopes, there is a particular declination in the middle of the isthmus. Directly north from Suez is a valley which extends like a hollow trough for $13\frac{1}{2}$ miles, terminating at the deep basin of the Bitter Lakes, which is 54 feet below the level of the Red Sea, the waters of which would enter and fill it, but for a little sandy isthmus three feet higher than the sea, which forms a complete bar to its progress northward up the valley. In the opposite direction, the valley, called Wady Tomylat and Wady Sababyar, opens a passage for the waters of the Nile into the Bitter Lakes during its rise; so that it seems quite possible to form a navigable communication between the Nile and the Red Sea through this natural channel. Accordingly we find, that so early as the reign of Sesostris (somewhere between eleven and seventeen centuries B.C.), that prince actually formed a canal, which was several times renewed, and kept up even till the times of the Arab dominion. The coast of Egypt is very low, and so unvarying in its formation, that there is great difficulty in making a safe approach to it. The land, when first seen, rises ahead like a long ridge of sand, presenting the appearance of a continued swell of the sea, or of a line faintly drawn on the horizon.

RIVER, LAKES, CANALS.—The Nile is the only river of Egypt; its general direction and character have been already described; and it only remains for us to show its beneficial influence on the country through which it flows. The celebrated plains of Egypt would not be the abode of perpetual fertility were it not for the inundations of the river, which both impart to them the requisite moisture, and cover them with the richest deposit. The rise of the river, which is caused by the heavy annual rains within the tropics, commences about the time of the summer solstice; it attains its greatest height at the autumnal equinox, remains stationary for some days, and then gradually diminishes till the time of the winter solstice, when it is very low, though some water still remains in pools and in the large canals. The soil has been, in the meantime, covered with a fresh layer of mud, and at this latter period the lands are put under culture. At Assouan the flood rises thirty feet above the ordinary level of the river, but from that point to the sea its elevation diminishes gradually and insensibly. The breadth of the inundation in Upper Egypt is comparatively small, for it does not every where reach to the foot of the mountains; but in Lower Egypt it overspreads great part of the Delta and the adjoining plains, leaving only the towns and villages, like so many islands in the midst of a lake. The prosperity, however, of Egypt, depends very much on the river keeping a certain medium level during its flood; too little or too much being almost equally pernicious; scarcity and famine result from the one, while the destruction of the villages is too often the consequence of the other. In some places, indeed, these are built upon hillocks, natural or artificial; but in many cases, particularly in

Upper Egypt, they are defended only by fences of earth and reeds, which easily give way before the strong pressure of the superabundant water. There are great disparities in the statements of different writers respecting the height which the inundation ought to reach to be beneficial. According to Wilkinson, who is probably the best informed, the lowest rise is 18 cubits; the canals are then cut; 19 cubits he calls tolerable; 20, good; 21, sufficient; a rise of 22 cubits fills every canal; a rise of 24 cubits would overwhelm and ruin the villages. A cubit exceeds 21 inches; hence, in order fully to fertilize Egypt, a perpendicular rise of 38 feet is required. Besides the prodigious quantity of earth brought down by the flood from the countries in the interior, the banks of the river itself, in Egypt, are also undermined to a great extent, and the material is carried down to be deposited at the base of the Delta, where new accessions are constantly making to the alluvial formation of the coast, while the direction of the channel of the river is perpetually changing. The salubrity of the water of the Nile was highly extolled by the ancients, and is acknowledged by most modern travellers. If Mahomet had tasted it, the Egyptians say, he would have supplicated heaven for a terrestrial immortality, to be enabled to enjoy it for ever. It is said to be laxative, owing to certain neutral salts which it contains; but, during the three summer months, before the inundation commences, it requires to be filtered before it can be safely used. During the flood it first acquires a green colour, sometimes pretty deep; after thirty or forty days the colour becomes brownish red; and, again, during the low season it becomes quite clear. In many circumstances the Nile differs from all other rivers: for 1500 miles it pursues its course alone, without receiving a single affluent; the country through which it flows is not liable to falls of snow or hail, seldom even of rain; its waters, consequently, receive no taint from the noxious qualities of earths or minerals, except those in its immediate channel; the air, pure and serene, generates no unwholesome fogs; and its banks are unpolluted by the filth of any great cities, as it flows for the most part through rocky deserts or vast expanses of sand. In this long course, it exposes generally to the sun and air a broad surface, and is gradually purified as it advances towards Egypt. During the rainy season, and towards autumn, when it is filled with torrents from the mountains, its waters are muddy and unwholesome; and this is accordingly the principal unhealthy season in Lower Egypt; but at other times there is scarcely a river in the world whose water can be compared in quality with that of the Nile. The average current of the river is about 2900 yards per hour, but it is considerably increased during the period of the inundation. The prevalence of northerly winds more than compensates to vessels bound upwards the rapidity of the stream. The general depth at low water is about six feet (1.830 metre). There is much danger, however, in the river, occasioned by sudden squalls.

At Farshout, in lat $26^{\circ} 12' N.$, a canal, named *Bahr Joussef*, *Moye Souhaj*, &c., issues from the west bank of the river, and runs parallel with it for 250 miles to Benisouef, where one branch diverges towards Faioum, while another flows onward as far as the Delta. It is in some places several miles distant from the river, flowing, like its parent stream, along the top of a ridge formed by the mud of its inundations, leaving a space of low ground between them. Its breadth varies from 50 feet to 300; and it has all the appearance of a natural river, though it is undoubtedly artificial. The branch which flows into Faioum divides into numerous streams, which fertilize the district, and ultimately find their way to the *Birket-el-Keroun*, a large lake of brackish water, about 30 miles in length, with a breadth varying from eight miles to less than one. This lake was believed by the ancients to have been entirely artificial, and to have been dug by king Mæris, for the double purpose of preventing the low country from being damaged by the superabundant overflowing of the Nile, and of serving as a reservoir to supply water during the low season. Herodotus accordingly reports that during one half of the year the Nile flowed into the lake, while, during the other six months, a stream flowed out of it. Of the latter, however, there is no remaining trace; and the great works contrived by Mæris to regulate the water have disappeared. The lake has at present every appearance of occupying a natural basin, though, certainly, its only apparent feeders are derived from the Nile. Mr. Wilkinson, moreover, insists that Herodotus's account of the water returning from the lake to the Nile is totally inapplicable to the lake Mæris, the level of its surface being about 100 or 120 feet lower than the bank of the Nile at Benisouef; which, making every allowance for the rise of the bed of the river, and the proportionate elevation of its banks, could never have been on a level, even in the time of Herodotus, with the lake Mæris. It is the canal of Joussef to which, he says, the account of Herodotus is alone applicable, as being the work of human hands, and returning

its water to the river.—(*Topography of Thebes, &c.* 354.) The view of the lake of Kerouan is peculiarly grand. It is equal in breadth to the lake of Geneva, between Rolles and Thonon, and, though differing in its accessories from every sheet of water in Europe, it presents, in the burning desert, the arid mountains, and the uncultivated plains which surround it, and in its own unnavigated waves, features not less calculated to excite in the mind the highest emotions of grandeur and sublimity. Towards the east the shore is low, consisting of a series of wave-like sandhills, which, as the eye turns westward, give place to rocky eminences, rising gradually into mountains, which are barren and wild, and extend westward to the extreme verge of the horizon. Between this arid chain and the traveller who contemplates it from the verdant plains of the Faïoum, lies the lake. Absolute solitude prevails on all sides; and nothing presents itself to the eye that can suggest a reference to human society; but enormous flights of aquatic birds, as pelicans, wild-ducks, gulls, petrels, and white ibises, are seen, some rising, others lighting on the shores or swimming on the lake; and the waters abound with incredible multitudes of fish. Whatever may be the depth towards the middle, the water is extremely shallow near the land, and the bottom in most places consists of soft mud, such as is everywhere deposited by the Nile. Mr. St. John, from whose work (*Egypt and Mohammed Ali; or Travels in the Valley of the Nile. By James Augustus St. John.* London, 1834; vol. II. 238-41) we have taken this description, found the water of a brackish taste; not to the degree mentioned by Pococke, who thought it “almost as salt as the sea;” but sufficiently so to render it disagreeable, though not unfit for drinking. The fisheries of the lake and the Bahr Joussef were farmed at 500 purses per annum, or about £4000 sterling. The Arabs call the lake *Birket-el-Kerouan*, or lake of the horns, but for what reason is uncertain.

The only other *existing* canal which deserves particular notice is the *canal of Mahmudiah*, lately formed by the Pasha to afford a navigable communication between Alexandria and the Nile. It extends from Alexandria to the Nile at Atfeh, near Fouah, in a serpentine course of about 40 miles; its mean depth being much above the level of the river, and its breadth averaging perhaps 200 feet. There is a sluice at each end, to regulate the admission or escape of the water, but no means for the passage of boats. The canal is in fact a large ditch, without science in the plan, or skill in the execution. It is so crooked that the distance is increased about one-third, without the slightest necessity existing for deviating from a straight line. Though originally constructed for the purpose of navigation, it likewise supplies Alexandria with water, and serves for irrigating the lands on both sides. The making of this canal was commenced in 1819; and from the severity of the labour, to which they were unaccustomed, combined with ill treatment, and want of food and pure water, 23,000 persons perished in ten months, and were buried in the embankments.

The *canal of Sesostris* exists now only in name; but vestiges of it are still found in different parts of the valley between Suez and the Nile, and it has been seriously proposed to restore it throughout. The *Khalije*, or canal of Cairo, leaves the river near Fostat, and flows directly through the city to the *Birket-el-Hadgee*, or pilgrim's-pool, so called from its being the place where the great caravan of Mecca assembles. Many other canals for the purposes of irrigation intersect the deltaic plains, and one traveller has counted so many as 6000; but these channels, rapidly filling up by the annual deposits, retain considerably less water than formerly; and the natural birkets or pools, increasing in extent in proportion as they become shallower, spread over the fertile fields, and diminish the cultivated land. Much of the water which should be retained in these reservoirs is thus lost by evaporation, and in the canals by infiltration, and the insufficiency of the banks; and hence the inhabitants of the village can seldom command a supply of water for any length of time.—(*St. John*, II. 353.)

Besides the freshwater lakes already mentioned, there are several saltwater lakes along the coast, as the *Mareotis*, *Maudie*, *Etko*, *Bourlos*, and *Menzaleh*. The lake Mareotis is a large shallow lagoon to the south-east of Alexandria, studded with islands, and separated from the sea on its north-west side by a long ridge of sand-hills. It is of great antiquity, but was dry for many centuries till the sea was let into its bed by the British army in 1801. The lake Maudie or Aboukir lies to the north-east of the Mareotis, separated from it by a narrow strip of land. The lake of Etko is a long narrow lagoon, a little farther east. The lake Bourlos lies to the east of the Rosetta branch of the Nile. The lake Menzaleh lies to the east of Damietta, and is bounded on the north and north-east by a long narrow strip of low land which separates it from the sea. It communicates with the sea by two navigable channels; but the southern portion of the lake itself, to the extent of about one-third of its surface, is not navigable, and the remainder is very shallow. It measures about 56 miles in length, from north-west to south-east, with a breadth varying from 12 miles to 30. It contains several islands, and abounds with fish, which afford employment and subsistence to a numerous class of rather savage fishermen.

CLIMATE.—From the nature of its surface, and the general aridity of the surrounding deserts, Egypt is much hotter than most other countries under the same

parallel of latitude. At some distance from the sea the heat of the plains is at all seasons scorching; but it sometimes happens that the violent north winds depress the temperature, even near the tropic, to the freezing point. The general height, however, of the thermometer, in the depth of winter, in Lower Egypt, in the afternoon, and in the shade, is from 50° to 60° Fahrenheit: in the hottest season it is from 90° to 100° ; and in the southern parts of Upper Egypt it is generally about ten degrees higher. But though the summer heat is so great, it is seldom very oppressive, being generally accompanied by a refreshing northerly breeze, and the atmosphere is at the same time extremely dry. The nights of winter, on the contrary, are exceedingly cold in Lower Egypt; and, indeed, the keenness of the night air at that season is almost incredible. Every where in the shade it is cold, even by day, and a strong breeze constantly prevails, which increases the sharpness of the atmosphere; rendering it prudent, even in the sunshine, to go warmly clothed. To the neglect of this precaution may be attributed many of those dangerous attacks of fever and dysentery which travellers frequently experience in Egypt. — (*St. John*, I. 139.) The wind is very regular in June, July, August, and September, when it blows almost without interruption from the north and north-east. During the day, at that season, the sky is clear, without clouds or mists; but after sunset the cooling of the air condenses the vapours, which are then observed to pass with a hurried motion from north to south, which continues till after sunrise, when the solar heat rarifies them anew, and renders them again invisible. The period of the decrease of the Nile is accompanied by intermitting winds, which, however, still blow from the north, but with intervals of calm weather. In winter the winds are changeable; but at that season the cloudless atmosphere gives free scope to the solar rays, and the vegetation becomes luxuriant. The only symptoms of moisture then in the atmosphere are the abundant dews deposited in the night, and the fogs which appear in the mornings, though the latter are comparatively unfrequent. In the same season it occasionally rains in Egypt, but chiefly near the sea. At Cairo there are, on an average, four or five showers during the year, and in Upper Egypt only one or at most two. "Indeed," says Mr. St. John, writing near Benisouef, "nothing can be more incorrect than the opinion that it never rains in this part of Egypt. During the first week we were on the Nile it rained at least ten times, not slightly or sparingly, as if the climate were not used to it, but in long, heavy, drenching showers, which thoroughly soaked the earth, and must have been greatly useful in forwarding the processes of vegetation." — (I. 221). The approach of the vernal equinox changes the appearance of the country; the hot south wind then begins to blow, and continues at intervals during a period of somewhat more or less than 50 days (thence called the *khamseen* or *khumaseen*), commencing in April, and lasting throughout May; but it seldom blows for more than three days in succession. During its continuance the atmosphere becomes troubled, sometimes acquiring a purple tinge; a dry burning heat prevails every where, and whirlwinds, like the blasts of a heated furnace, sweep over the country, often raising the sand and even small stones to a considerable height, so as to form a black cloud, and afterwards depositing them in large heaps on the ground. The fine sand is forced into the houses through the smallest crannies, and every place is filled with it. These winds, though they seldom cause the thermometer of Fahrenheit to rise above 95° in Lower Egypt, or in Upper Egypt, above 105° ,* are dreadfully oppressive even to the natives. During spring and summer the simoom blows occasionally, coming from the south-east or south-south-east, and carrying with it clouds of dust and sand. It is still more oppressive than the khamseen winds, but seldom lasts longer than a quarter of an hour or 20 minutes. The season of the khamseen is the only time in which the atmosphere of Egypt is generally unhealthy, and it is then that the plague, the fatal scourge of the Levant, is most severe. The ophthalmia, however, another very common Egyptian disease, makes its greatest ravages during the inundations, a circumstance which proves that it is not entirely owing to the glare of the sun and the heat of the khamseen winds.

VEGETABLE PRODUCTIONS. — To its singularly constituted atmosphere, and to the regular inundations of the Nile, Egypt owes the advantage of containing within its limits almost all the cultivated vegetables of the old world. The cultivated plants may be divided into two great classes; the one consisting of those which grow in the mud of the Nile; and the other embracing those produced on ground beyond the reach of the inundation, but which is watered artificially. In the first class are wheat,

* 'This is the temperature in the shade. At Thebes I have observed the thermometer to rise above 110° during a khumaseen wind in the shade.' — *Lane*, I. 3.

barley, spelt, beans, peas, lentils, sesamum, mustard, flax, anise, carthamum or saffronwood, tobacco, lupins, vetches, barseim or Egyptian trefoil, fenugreek, pumpkins, melons, cucumbers, and lettuce. The cucurbitaceous plants, and also tobacco and lupins, generally cover the banks of the river as the water subsides; the melons and cucumbers grow almost visibly, but are generally watery and tasteless; the tobacco is weak, but is reckoned much pleasanter to smoke than that of America. The plants produced in the irrigated lands are chiefly the *holcus dhurra* or durrh, which forms the common food of the people; its leaves are used for feeding cattle, and its stalks serve as fuel for the ovens; sugar-cane, indigo, cotton, and pot-herbs. Cotton, in particular, has lately become an article of great commercial importance; it is cultivated in large quantities, and is generally of excellent quality, though produced with little more labour to the cultivator than planting and watering it. The sugar-cane is also now grown in considerable quantity, and the manufacture of sugar is in a flourishing condition. Faioum is distinguished for its roses, which produce the much-used rosewater: it also produces rice; but the best quality of that grain is raised on the the marshy grounds of Lower Egypt, and particularly near Lake Menzaleh, where it was introduced in the time of the Khalifs. Of fruit-trees, the almond, the walnut, and the cherry are not found in Egypt; the pear, the apple, the peach, and the plum, are neither abundant nor good; but citrons, lemons, oranges, pomegranates, apricots, and bananas prosper abundantly; and the coloeyuth or bitter apple has become an article of considerable trade. The syamore or Pharaoh's fig, less valued for its fruit than for its deep and broad shade, the carob, the jujube, the tamarind, and other trees are cultivated; but none of these are equal, in number or usefulness, to the date-palm, which is cultivated alike in the lands that are naturally or artificially irrigated. Groves of these palm-trees are to be seen containing 300 or 400, and sometimes consisting of several thousands together. The olive tree is only met with in gardens; but there are some plantations, where the people preserve their fruits in oil, and sell them all over Egypt. The vine, in ancient times, formed an interesting branch of culture, and produced the choicest wine; but at present it is only cultivated for its shade and its grapes. But all these vegetable productions are not found every where; they vary in different provinces; and some belong almost exclusively to particular districts. Clover, so abundant in the Delta and Lower Egypt, is rarely cultivated in the Thebaid, where its place is supplied by gilban (*lathyrus sativus*, L.) Rice belongs exclusively to the Delta and the oases; and cole-seed, gortum, poppies, and lettuce, are almost confined to Upper Egypt, where also the greatest quantity of durrh is cultivated. Date-trees are more abundant in the north; while vines, figs, roses, and olives, are limited to Faioum, and the gardens contiguous to large towns.—(*Wilkinson's Topography of Thebes*, &c. 267.) There are plantations of mulberry trees at Wady Somulat, in the provinces of Sharkiyeh, Mansourah, Menouf, Garbiyeh, Keloub, Damietta, Rosetta, and Gheeza, consisting altogether of about 3000 feddans of land, and three millions of trees.—(*Bowring*, 21). A large and beautiful fruit-tree, celebrated among the ancients, the *persæa* of the Greeks, seems to have disappeared from Egypt; but another plant, which makes a conspicuous figure in ancient writings, the *lotus*, still remains. The plant properly so called is a species of *nymphaea* or water-lily, which, after the inundation, covers all the canals and pools with its broad round leaves, among which the flowers, like cups of bright white or azure blue, rest with inimitable grace on the surface of the water. The rose-lily of the Nile, or Egyptian bean, which is sculptured on the monuments, is not now found in the country. The *papyrus* is still found, and the *colocasium* is still cultivated for the sake of its large esculent roots. Many of the gardens of Egypt are beautiful in appearance, and rich in the products which they yield; the most celebrated are under the care of Europeans; that of Ibrahim Pasha, in the island of Rhoda, is one of the most attractive. It contains several hundred teak trees in a flourishing state, all of which have grown from seed. The bamboo, the yam, the caoutchouc, the ginger, and the arrow-root, have also completely succeeded, and may be cultivated without difficulty to any extent. The custard-apple has likewise been introduced, and prospers. The cultivation of coffee and tea has also been tried, but without success; the soil does not seem to be favourable to their production. But, though Egypt is so rich in cultivated plants, it is entirely destitute of forests. The banks of the river and of the canals sometimes present coppices of acacias and mimosas, and are also adorned with groves of rose-laurel, willows, saules-kalef, casias, and other shrubs; and Faioum contains impenetrable thickets of *cactus*, or the prickly pear; but none of these furnish fire-wood, and all the fuel which is used in the country is brought from Caramania. The peasants burn cow-dung, which they collect with an almost ludicrous

assiduity. The cultivable land of Egypt is never at rest; every month has its flowers, and every season yields its fruits. In January, lupins, dolichos, and cummin are sown in Upper Egypt, while the wheat shoots into ear; and in Lower Egypt the beans and the flax are in flower. Towards the end of the month, the orange, the citron, and the pomegranate begin to be covered with blossoms. Sugar-cane, senna-leaves, and various kinds of pulse and trefoil are then cut down. In February all the fields are green; the sowing of rice begins; the first barley crop is cut; cabbages, cucumbers, and melons ripen. March is the blossoming season for the greater part of plants and shrubs; the corn sown in October and November is now gathered; and the only trees not yet in leaf are the mulberry and the beech. The first half of April is the time for gathering roses; nearly every sort of corn is cut down and sown at the same time; spelt and wheat are ripe, as well as the greater part of the leguminous crops; and the Alexandrian trefoil yields a second crop. During May the reaping of the winter crops continues; *casia fistula* and hennah are in flower; the early fruits, as grapes, figs, carobs, and dates, are gathered. In June, Upper Egypt has its sugar-cane harvest; and the plants on the sandy grounds begin to wither and die. In July, rice, maize, and canes are planted; flax and cotton are pulled; ripe grapes are abundant at Cairo; and there is now a third crop of trefoil. In August the nenuphar and the jessamine flower; the palm-trees and the vines are loaded with ripe fruit; and the melons are surcharged with water. Towards the end of September, oranges, citrons, tamarinds, and olives are gathered, and a second crop of rice is cut down. In this month also, and still more in October, all sorts of grain and leguminous seeds are sown; the grass grows tall enough to hide the cattle; and the acacias and other thorny shrubs are covered with odoriferous flowers. The sowing continues more or less late in November, and before the end of the month the corn begins to spring; narcissuses, violets, and colocasias flower on the dried lands; the nenuphar disappears from the surface of the waters; dates and the sebestan fruit are gathered. In December the trees gradually lose their leaves; but the corn, the grass, and the flowers every where present the spectacle of a new spring.

ANIMALS. — The animal kingdom of Egypt will not detain us long. The want of meadows prevents the multiplication of cattle; which must also be kept in stables during the inundation. Asses, mules, and camels appear in full perfection; the asses, in particular, are fine animals, and so sprightly, that "as brisk as an ass" has become proverbial for a person in high spirits. There are great numbers of buffaloes; the Mamelukes used to keep a beautiful race of saddle horses, and great attention is still paid to this noble animal by the Pasha, for the mounting of his cavalry. In Lower Egypt there are sheep of the Barbary breed. Large beasts of prey find neither food nor cover; and hence, though the jackal and the hyena are common, the lion is but rarely seen. Crocodiles seem to be banished from the Delta, but are still met with in the higher parts of Upper Egypt. The ichneumon still exists, and has never been found any where else. Jerboas, hares, foxes, hedge-hogs, bats, and rats, are also found. The birds do not differ much from those of Europe; the famous ibis, according to Cuvier, is a sort of curlew, now called Abou-hannes. The Nile is said to contain some singular species of fish. The *coluber-haje*, an animal employed in the hieroglyphics as the emblem of Divine Providence; and the *coluber-vipera*, the true viper of the ancients, are still found. The animal kingdom likewise supplies vermin which very much detract from the comfort which might otherwise be derived from the genial climate of Egypt. In spring, summer, and autumn, flies are so abundant as to be extremely annoying during the day-time; mosquitoes are troublesome at night, and sometimes even in the day; and every house which contains much wood-work (as most of the houses of the best class do) swarms with bugs during the warm weather. Lice are not always to be avoided in any season, but they are easily got rid of; in the cooler weather fleas are excessively numerous. — (*Lane's Account of the Manners and Customs of the Modern Egyptians*, I. 3.)

PEOPLE. — The inhabitants of Egypt may be classed as Arabs, Copts, Turks, Jews, Greeks, Armenians, Franks, and other foreigners. The *Arabs* form the great body of the people. They are characterised by an oval face, darkish skin; forehead of moderate size, seldom high, but generally prominent; small, deep-sunk, but sparkling eyes; an expressive physiognomy; a general angularity of form; short pointed beards; their lips habitually open, and shewing their teeth; muscular arms; the whole body more remarkable for agility than beauty, and more nervous than handsome. In general the Egyptian Arabs attain the height of about five feet eight, or five feet nine inches. In mature age most of them are remarkably well proportioned; the men

are muscular and robust; the women very beautifully formed and plump; and neither sex is too fat. In Cairo, and throughout the northern provinces, those who have not been much exposed to the sun, have a yellowish but very clear complexion, and a soft skin; the rest are considerably darker and coarser. The people of Middle Egypt are of a more tawny colour, and those of the more southern provinces are of a deep bronze or brown complexion, being darkest towards Nubia, where the climate is hottest.—(*Lane*, I. 31.) The peasantry, called *fellahs*, seem to have been all cast in the same mould. They are every where attached to the soil; their wretched cottages exceed in filth and meanness the cabins of the Irish; and the inhabitants are generally covered with rags. A few earthen pots, a large jar for grain, and a mat to sleep on, constitute the whole of their furniture; their ordinary food is durrâh-bread and onions; a few eggs, or a coarse piece of buffalo-flesh is regarded as a feast. As their poverty deprives them of all pretensions to free agency, they are universally cringing, timid, and dissimulating. Fear is their habitual passion. Credulous, ignorant, superstitious, no man has originality enough to be a heretic. In religion, morals, manners, and opinions, the son follows in the footsteps of his father without inquiry or reflection. The fellah marries and begets children, who run naked about the villages till the age of puberty; he then gives them a rag to bind about their loins; when they begin to work, become possessed of a few piastres, and, marrying in their turn, run the same career as their parents. Incapable of forming any conception of the higher affections, their love is purely physical, women being simply in their eyes a necessary of life like rice or durrâh. Both sexes are highly profligate. Few Arabs ever perform a journey to any large city without visiting the dancing girls, whose numbers are so considerable, that the tax which they pay forms a considerable item in the Pasha's revenue. Their wives, on the other hand, if left for a short time to their own guidance, easily forget their fidelity. Both in town and country the Egyptian Arabs are scrupulous observers of the external rites of their religion; but, though immersed in superstition, they are as generally lax in faith as in practical morality. At Cairo, as in other capital cities, the inhabitants being engaged in a greater variety of occupations, obliged to exercise a higher degree of ingenuity, and brought into frequent contact with strangers, display more sociability and politeness than the fellahs; and the artisans and shopkeepers are distinguished for their industry and attention to business. But, when not engaged in their professional or religious duties, they are generally found in the coffee-houses, listening to the story-tellers, or in the public places, where mountebanks, jugglers, and dancing girls are performing. The productive powers of the human race in the valley of the Nile are very great; and when, for some years, there has been no call for conscripts, the towns and villages are crowded with children. The disproportion of males to females is also very great; so much, according to the Government returns, as 100 to 135, and polygamy no doubt assists in filling up the vacancies occasioned by the perpetual drafts of young men. In a very few years, were the country in a state of rest, the population would double itself, so easily is life supported, and so constant is the demand for labour. So universal is early marriage, and so prolific is the Egyptian race, that a young woman is seldom seen without a child on her shoulders. The rate of mortality, however, is also great, though it appears to be diminishing; and the prejudices of the fellahs against vaccination are gradually subsiding.

The *Copts* are said to amount to 150,000, of which number 10,000 are found in Cairo. In some parts of Upper Egypt are villages exclusively inhabited by them; and they particularly abound in the Faïoum. They are distinguished from the Arabs by a darker complexion, flat foreheads, and hair partaking of the woolly character; eyes large, and raised at the angles; high cheeks; short, though not flat, noses; wide mouths at a distance from the nose, and rather thick lips; thin beards; a want of gracefulness in their shape; bandy legs, ill adapted for agility; and long flat toes.*

* This description is taken from *Malte Brun's Geography*, but Mr. *Lane's* account does not exactly agree with it. "The Copts," he says, "differ but little from the generality of their Moslim countrymen; the latter being chiefly descended from Arabs and from Copts, who have embraced the faith of the Arabs, and have thus become assimilated to the Copts in features. I find it difficult, sometimes, to perceive any difference between a Copt and a Moslim Egyptian beyond a certain downcast and sullen expression of countenance which generally marks the former; and the Moslims themselves are often deceived when they see a Copt in a white turban. We observe in the latter the same shades of complexion, in different latitudes of the country, as in the former, varying from a pale yellowish colour to a deep bronze or brown. The eyes of the Copt are generally large and elongated, slightly inclining from the nose upwards, and always black; the nose is strait [straight?] excepting at the end, where it is rounded and wide; the lips are rather thick; and the hair is black and curly. The Copts are, generally speaking, somewhat under the middle size; and so, as it appears from the mummies, were the ancient Egyptians." "The people who bear the greatest resemblance at present to the ancient Egyptians are the Nubehs (or genuine Nubians); and next to these the Abyssinians and the Copts, who are, notwithstanding, much unlike each other."—II. 399. 10.

Several centuries ago the Copts still retained their ancient language, which is yet employed by them in their religious worship; but in common use it is now completely superseded by the Arabic dialect of the country. In the villages, and throughout the country, the Copts are devoted, like the fellahs, to agriculture, though many of them follow trades. At Siout, for example, they are weavers; in Faioum, distillers of rose-water; at Menouf, mat-makers; and in Cairo, goldsmiths, tailors, masons, or cabinetmakers. Under the Mamelukes, when they were the only educated class in the country, they were employed as tax-gatherers and financiers; but they are now reduced to mere clerks. Bigotedly tenacious of their ancient customs, their women pass their lives in extreme retirement, and never appear unveiled, even before their nearest relations. As among other barbarians, the condition of the women is degraded and servile; but the mother of many children is held in higher esteem than she who is barren. Under all circumstances, however, the husband and the wife neither eat nor sit together, and live in a state of estrangement. Girls from ten to twelve years old wear a white veil, and are often married before the age of puberty; married women are distinguished by a black veil, which is ominous of their melancholy state of servitude. Severe in external observances, the Copts are no less lax in their morals than their Arab or Turkish neighbours. Adultery is common; and a kind of temporary marriage is likewise practised, which differs but little from female prostitution. The Copts are undoubtedly descendants of the ancient Egyptians, but are not an unmixed race; their ancestors, in the earlier ages of Christianity, having intermarried with Greeks, Nubians, Abyssinians, and other foreigners.—(*Lane*, II. 309.)

The *Turks* are the ruling class, and do not differ essentially in person, character, or manners from their brethren in Asia. Many of them, however, are now, comparatively speaking, highly accomplished in literature and science; but they all exhibit the same laxity of morals, and the same want of right principle, which every where characterises the people of the East. The splendid *Mamelukes*, who so lately ruled and tyrannized over Egypt, are completely extirpated.

The *Jews* are now fewer in number than formerly, and do not exceed 3000 at Cairo, and 500 at Alexandria. In their persons they are dirty, covered over with sores and scabs, and have watering eyes, all of which is the effect of the filthiness in which they are born and live.—(*Webster's Travels*, II. 207.) Like the rest of the inhabitants, they are generally reduced to poverty; none indeed are rich, and but few possess even a competency. The exceptions which occur are found at Alexandria. The Jews are now exempted from persecution; are hampered by no civil disability; and are allowed to purchase lands and houses no less than the Mussulmans. Poverty, however, confines them, at Cairo, to the worst quarter of the city, where they live in streets as filthy as can well be conceived, in which the plague commonly makes its first appearance, and commits its most fearful ravages. Their character exhibits in Egypt the same peculiarities as elsewhere: they are averse to all useful productive labour, and therefore seldom exercise any other trade than that of bankers or money changers, jewellers or petty traffickers, and are never found as labourers or husbandmen. At Alexandria, however, they lately monopolised the trade of butchers.—(*St. John*, II. 385.)

The *Franks* in Egypt consist principally of French, English, Germans, Italians, and Poles. Many of them are engaged in trade, and live, in a great measure, according to the customs of their respective countries; not a few are employed in the military and civil service of the Pasha, where some of them have attained the high rank of begh or bey, *i. e.* lord. Other foreigners from all parts of Western Asia and Northern Africa are likewise to be found in Cairo; but they form too inconsiderable a part of the population to require particular notice. The inhabitants of the deserts are Bedwin Arabs of various tribes, of whom the principal are the *Beni-Wassel* in the northern, and the *Ababde* in the southern portions of the eastern desert. They profess to be independent of the Pasha.

The numbers of the several classes of which the population of Egypt is mainly composed are nearly as follow:—

Arab Moslems,	1,750,000
Copts,	150,000
Turks,	10,000
Syrians,	5,000
Greeks,	5,000
Armenians,	2,000
Jews,	5,000

Total, 1,927,000

Of the remainder (namely Arabians, Moghrebins, Nubians, Negroes, white slaves, Franks, &c.) amounting altogether to about 70,000, the respective numbers are very uncertain and variable. The Arabs of the deserts ought not to be included in the population of Egypt.

GOVERNMENT. — The government of Egypt is at present a monarchical despotism vested in the person of Mohammed Ali, a Turkish Pasha, who, though he acknowledges the supremacy of the Sultan, is nevertheless quite independent, and is the real sovereign of the country, which he has, within a few years, raised to a high rank as a military power. Under the Pasha, the government of Upper Egypt is administered by a *kiaya bey*, and each sub-province has its *mamoor* or sheriff; under the *mamoors* are *nazers*, or inspectors of districts, whose jurisdiction extends over seven *cachefs* or *kashefs*, governors of towns and their environs; and under each of these again are seven or eight *kaymakams*, according to the number of villages in the district. The duty of these last officers is to superintend the cultivation of the lands, and to collect the taxes, assisted by the *shekh-beled*, or native chief of each village, who is subordinate to the Turkish officers. A superintendent or *nazer-shekh* also overlooks the *shekh-beled*, under the immediate orders of the *kashef*; while the *mobasher*, a Christian inspector, appoints the numerous Copt scribes, and collects their accounts. These officers are all paid from the government treasury; and the only person who has a direct and legal claim on the *fellah* is the *shekh-beled*, who exacts the twenty-fifth part of the produce, with presents of every kind, according to the means, or the fears, of the donor. But, besides these legal demands, the *fellahs* are subjected to the most ruinous extortion, amounting almost to robbery, on the part of the inferior governors; against whose exactions they can obtain no redress without such presents to the higher officers as are quite beyond their means. In the neighbourhood of Cairo, where they have the fear of the Pasha before their eyes, these functionaries are tolerably well behaved; but, in the more distant provinces of Upper Egypt, they carry their spoliation and tyranny to great excess. And the consequence is, that the *fellahs*, robbed of their property, and of the produce of their labours, are kept in the most miserable poverty, and deprived of all encouragement to improve their lands. Trees are seldom or never reared, or, if some few are planted in the vicinity of the large towns, no inducement is held out to attend to their culture, and the despondent *fellah* wilfully neglects them, to avoid the additional tax.

The power of the Pasha is maintained by means of a large standing army, disciplined in the European manner by European (chiefly French and Italian) officers; and which, in his wars with his master, the Sultan, proved a most efficient instrument. It is composed of all classes of his subjects, even from the most remote provinces of Nubia and Sennaar. Not content with his superiority by land, he has also equipped a numerous and powerful fleet, to preserve his communications with Candia and the coasts of Syria, which were for several years part of his dominions. He has likewise established a number of schools and colleges, which promise eventually to diffuse civilization among his people; he gives every encouragement to active and intelligent foreigners to settle in Egypt; and has even sent many of the more promising youths to be educated in France, from which some of them have already returned highly accomplished in literature and science. But the necessities of his situation have made him a hard taskmaster; he has rather *forced* than *fostered* the industry of the nation; he has had recourse to monopolies for the purpose of supplying his pecuniary wants; and he has shown himself, in other respects, only half informed as to the best means of governing a kingdom, and improving the condition of its people. He has nevertheless effected wonders; and experience, perhaps, will point out to him and his presumptive successor the best methods of attaining the object which they seem to have in view, the possession of a rich and powerful kingdom. Mohammed Ali, perhaps the most extraordinary political adventurer that the modern East has produced, is a native of Cavalla in Albania, and came to Egypt with the Turkish army in 1801, in the capacity of *bim-bashee*, or colonel. By daring and intrigue he contrived to get possession of the vice-royalty, and confirmed himself in it by the massacre of the principal Mameluke beghs, and the exile of the others who escaped with their lives. Subsequently, the Sultan is said to have made repeated attempts to get rid of his too powerful subject by secret means, but these were always foiled by the wary Pasha. At last their mutual jealousy led to an open war, in the course of which the Egyptian army proved more than a match for the imperial troops, defeating them in three great battles, driving them out of Syria, and through Asia-Minor, almost to the neighbourhood of Constantinople. This war, which broke out in 1830, was ter-

minated the following year by a peace, which left the Pasha master of Syria and Adana in addition to his former possessions; but, in 1840, he was compelled, by the operations of the British forces, in conjunction with those of the Sultan, to abandon Syria; and the European powers have since agreed to secure to him and his family the hereditary possession of Egypt and its dependencies, under the supremacy of the Court of Constantinople.

The Pasha is the great landholder of the kingdom, and his revenues consist principally of the land-rents, which are levied in proportion to the three qualities of land; the best paying from 40 to 30 or 20 real; the middling, from 18 to 14; and the lowest, from 12 to 8, each feddan; but the tax on the same land varies in proportion to the rise of the Nile, the islands generally paying 20 even after a low inundation.* Each fruit tree pays one piastre, equal to threepence sterling; and the use of the water wheels is also paid for by the fellahs. But so wretched is the system of agriculture, that this rent, enormously increased, indeed, as it is by the illegal exactions of the collectors and superintendents, keeps the fellahs in a state of the most abject and hopeless poverty; so much so, that in order to eke out their scanty means of subsistence, they are sometimes obliged to steal their own corn. As the Pasha publishes no accounts, the amount of his revenue is unknown, but it has been variously estimated by European travellers and residents at 25,000,000 of dollars; £2,100,000 sterling; and even from £2,500,000 to £3,000,000. About the end of 1839 the actual force of the Egyptian army was 159,300 men, of which 112,800 were infantry, 13,180 cavalry; 25,820 artillery; 5000 Bedwins, 1000 Albanians 1500 Moghrebins and other irregulars. The number of ships of war was 10; 1 of 3 decks and 136 guns, 1 on the stocks, and 2 fitting out, 6 frigates, 4 corvettes, and 8 brigs. The management of the army is vested absolutely in the minister of war, assisted by a council, of which he is president, and which decides on all contracts for the supply of arms, accoutrements, and materials of war. The general of artillery has the direction and control of the arsenals, cannon foundries, gunpowder and salt-petre works, of the printing establishments and cloth manufactories, all of which are within the department of the minister of war. The *Nazers* receive their orders direct from the general of artillery, with whom they are in constant correspondence. They are the chiefs or directors of the various works, manufactories, and departments, and are themselves members of the council, which consists of 20, and meets every day for the despatch of business. Under them are the Moudyers or governors of departments, of whom there are 2 for Upper, 1 for Middle, and 4 for Lower Egypt. Their sub-delegates are the Mamours, whose duty it is to see the contributions punctually paid; the canals, bridges, and dykes kept in proper order, and to superintend the manufacturing establishments. They are also expressly instructed to see vaccination enforced, and the rigid execution of orders for the levy of troops and workmen. The office used to be held by Turks, but is now also filled by natives, mostly fellahs. In the chief towns the general police is under the charge of the Bache Aga; the markets are superintended by the Mohtecbe or Aga of provisions; and both officers give a daily report to the Kialice or governor of the place, and receive his orders. In each quarter of the town is an officer, Sheikh-el-tumn, who acts as a sort of justice of peace, or commissioner of police. The citadel contains a spacious arsenal, where 900 workmen are employed in manufacturing muskets and other military necessities. The cannon foundry employs 1500 men; and the consumption of iron and fuel is immense. There is also a musket work at Hod-el-Marsoud.

The administration of justice is more prompt and less capricious in Egypt than in most Mahometan countries. Publicity usually accompanies the proceedings of all the courts, whose decisions are generally just, though often rude and precipitate. The highest court is the Mekermeh, which exercises a sort of religious jurisdiction. It is the tribunal of final appeal, and its law is the Koran; but a code so vague, and so little suited to modern society, necessarily leaves great latitude for judicial decisions. The Mussulman reverence for the Koran is so devoted, that any sentence which can find a justification or a sanction in the phraseology of the sacred volume, is submitted to with the greatest reverence by the suitors. Indeed, their respect for all its dogmas is so unlimited, that it would be scarcely possible to introduce a philosophica system of jurisprudence in the East, unless it could be connected in some way or other with the doctrines of the Prophet. Another great difficulty would

* *Wilkinson's Topography of Thebes, &c.*, 268. A feddan is nearly 1 English acre; a real is 50 paras, or 6½d. sterling; so that, in English, the preceding statement will read thus:—The best land pays from 20 to 15 or 10 shillings the acre; the middling, from 9 to 7 shillings; and the lowest from 6 to 4 shillings.

meet the legislator at the threshold, namely, the complete exclusion of a great part of the community from the operation of the laws; there is no power to penetrate into the harem, and whatever misdeeds are practised there, neither police, nor laws, nor public opinion can reach. The very organization of society thus stands in the way of justice. The Mekermeh is also the court for the registration of landed or other real property, and no legal transfer can take place without its authority.—(*Bowring*, p. 121.)

PRODUCTIVE INDUSTRY.—The agriculture of Egypt is in a very low condition; the fellahs or peasants are in a state of wretchedness; they have neither proper implements nor the means of improving their situation; for the rapacity of the government deprives them of all the fruit of their exertions. But the productive powers of the soil are incalculable; wherever water is spread there springs up a rapid and beautiful vegetation; the seed is sown and watered, and scarcely any other care is required for the ordinary produce. Even in spots near the desert, which seem to consist merely of sand, irrigation brings rapidly forth a variety of green herbs and plants; and accordingly the most important branch of agriculture in Egypt, and that which requires the chief consideration, is irrigation. The Pasha informed Dr. Bowring that he had introduced not less than 38,000 sakias or machines for raising water. Wherever there is water there is fertility; and all the plants grown in summer are raised by means of artificial irrigation in places beyond the reach of the inundation. In fact, says Dr. Bowring, were there hands to plough, and water to irrigate, it is not easy to calculate what an immense tract of territory might be rescued from waste. Still, to counterbalance, as it were, the productive powers of the soil, other difficulties peculiar to eastern regions present themselves in Egypt. The hot winds often destroy the hopes of the husbandman; and there are seasons in which the khamseen winds dry up whole districts, even after irrigation. In addition to this, the prospect of large and productive harvests is at times suddenly cut off by the visitations of locusts, which come in myriads, like an all-destroying plague, followed by multitudes of hawks and other birds, filling the air for a vast space, and then descending on the fields of corn, which they completely lay waste, and then wing their way to another spot. Egypt is calculated to contain 3,000,000 feddans of cultivatable soil; but of that quantity only 2,000,000 are cultivated, when the Nile rises from 23 to 24 cubits; and when it does not rise above 19, the inundation is not permanent enough to produce the desired effect. In the distribution of agricultural productions, the government generally assumes the initiative, by determining what quantity of a particular article shall be cultivated in a given district, and at a price fixed upon before the period of delivery. By this arrangement most of the produce of the land comes into the hands of the government on terms fixed by itself; and, in fact, the government considering itself as possessed of the fee-simple of the lands, regards the fellahs as labourers under its direction, who may, and who frequently do, abandon the lands, whenever the conditions of cultivation are not satisfactory to them. When the fellah is poor the government prices scarcely enable him to exist; but when the holder of the lands has capital for seed, and can afford to wait for the returns, he may have from 15 to 20 per cent. profit on his outlay. In bad years the government supplies the fellahs with seed; which must be repaid with interest after the harvest. The principal articles of produce are wheat, beans, lentils, barley, maize, durrah, chick peas, lupins, belbeh (a seed of a bitterish taste, whose flour is mixed with durrah by the fellahs), sugar, cotton, flax, indigo, saffron, tobacco, hennah, silk, opium, and linseed. But of all these cotton is incomparably the most important, and is an article the introduction of which is wholly due to the Pasha. The average produce may be said to fluctuate from 100,000 to 150,000 bales, each about two hundred weight, and the price varies from 8 dollars to 20 per quintal. But the fellahs are very unwilling to engage in its cultivation; for they are pillaged most unmercifully by the government officers, and the price allowed affords no profit; cotton, besides, produces only one crop a-year, while many other articles yield two or three harvests. Raw silk is also an object of some attention, and is likely to become more so; great numbers of mulberry trees have been planted, and the cultivation is still extending; the quantity produced is not yet equal to the demand in Egypt, and considerable quantities are therefore imported.—(*Bowring's Report on Egypt and Candia*. 1840.)

EDUCATION.—A general system of education has been established, consisting of primary, secondary, and special schools, through the whole of which pupils are compelled to pass. Primary schools are to be spread in the provinces according to the po-

pulation, to the extent of embracing altogether 5500 scholars, and are all to be conducted on the same system; each school is to be under the charge of a director and two teachers. The scholars are admitted from the age of 7 to 12, and receive instruction for three years, during which time they are taught to read and write Arabic, the first rules of arithmetic, and religious knowledge; and are also fed, lodged, and clothed. The secondary schools receive their pupils from the primary schools, for the purpose of fitting them for the special schools. Their course of instruction lasts four years, but may be extended to five, and embraces the Arabic, Turkish, and Persian languages; with arithmetic, elementary algebra, elementary geography, general history, general geography, penmanship, linear design, and drawing. Each school has one director, one sub-director, three prefects of study, twelve masters, twelve professors of Arabic, Turkish, and Persian, one professor of history, one of geography, three drawing masters, two *sulus* and two *rika* professors; the courses of study are arranged by the council of public instruction. The schools are subjected to military discipline, and the scholars are lodged in barracks; they form three battalions, each consisting of four companies, and each company of 125 scholars. There is one preparatory school at Cairo for 1500 pupils, and one at Alexandria for 500. The special schools are for effecting translations from Turkish, Arabic, and French. The polytechnic school for providing officers for the artillery, engineers, department of roads and bridges, mines, and other services, is formed on the model of that of Paris; it was established in 1834, and in 1839 contained 225 pupils. Those who finish their courses of study satisfactorily obtain the rank of sub-lieutenants; those who are rejected become non-commissioned officers. There are besides a cavalry school, an infantry school, a medical school, and a veterinary school. The whole system of education is under the superintendence of a council of public instruction, which is charged not only with a general superintendence, but with the inspection in detail of all the schools; with the nomination of teachers for the approval of the minister; the appointment of all subordinate functionaries; the punitive and retributive regulations of the schools, and with all the correspondence connected with the business of instruction. The system is wholly compulsory; a certain number of children from each district is required to be sent to the public schools, where they are maintained as well as educated; and on this account parents are generally willing to send them; though in many cases much repugnance is felt lest the children should be detained as soldiers. These schools are no doubt an improvement on those which preceded them; but are far inferior to the well-organised seminaries of Europe; they labour under a great want of qualified teachers and class-books. The whole system, indeed, seems to have been formed more from a desire to introduce superior education for the few, than general instruction for the many; and to be wholly unsuited to a people just emerging from ignorance and barbarism. But there are many prejudices to be overcome, and the little which has been done, imperfect as it is, is highly meritorious. Among Mussulmans, reading has been considered of little value, further than as it enabled them to become acquainted with their sacred books; and the spirit of the Caliph Omar is still prevalent among the ulema (the learned), from whose lips is sometimes heard language similar to that recorded of the Saracen conqueror. "The koran," they say, "contains everything, and all that is out of the koran is worthless." As Europeans have been the principal instruments in diffusing education in Egypt, serious difficulties have also arisen from the different habits of thought and feeling between Moslems and Christians, the diversity of their mental training, the variety of their idioms, the embarrassments which European knowledge meets with at every step in the pursuit of synonymous words or phrases in Turkish and Arabic, and the prejudices, domestic, social, and religious, of the natives. It must also be added, that among the Europeans themselves too few have been trained by proper education at home to become instructors and directors of instruction abroad.—(*Bouring's Report*, p. 125-140.)

MANUFACTURES AND TRADE.—Not content with improving and extending the cultivation of the soil, and increasing the amount of its produce, the Pasha has also endeavoured to enrich himself by the introduction of manufactures. He has erected at great expense mills and machinery for spinning and weaving cotton, and preparing various other articles; but, owing to various causes, and principally to the indolence, inattention, incapacity, and want of personal interest, on the part of the persons employed, his speculations have proved an almost total failure, though they are still perseveringly carried on. He has made himself at once the great landholder, manufacturer, merchant, and general monopolist of the trade of the country; everything is done at his instigation, and for his profit. No one else has any interest in what is done and consequently everything is ill done; and were he out of the way, all his manufacturing

projects will probably fall to the ground. The trade of Egypt consists chiefly in the export of her raw produce, particularly cotton, and of the articles brought from the interior by the caravans; but the principal article is Negro and Abyssinian slaves, who are brought in great numbers to the slave-markets of Egypt, from which all the neighbouring provinces of the Turkish empire are supplied. The principal articles of import at Alexandria are wood, tarboushes, nails, spices, iron, pitch, cloth, cochineal, paper, and lead; but the extreme poverty of the people, and the circumstance of the great mass of them wearing scarcely any clothes at all, are such obstacles to the extension of the import trade, as only a complete change in the method of regulating their industry, and rewarding their labour, will remove.

PUBLIC WORKS.—The number of the Pasha's works of this kind is considerable, and comprehends establishments of every kind, as arsenals, manufactories, foundries, workshops, schools, hospitals, mosques, palaces, barracks, canals, locks, terracings, drainings, telegraphs, stables, sheepfolds, &c. But one of the greatest works he has contemplated, is the barring up of the waters of the Nile by a huge dam with sluices, near the fork of the Delta. The original suggestion emanated from the scientific men of the French expedition; and Bonaparte is said to have expressed a favourable opinion of it. M. Linant, who has had the direction of the work, estimates that it will, if completed, irrigate 4,275,000 acres, even in the lowest inundations, and without the aid of machines; and that with machines a very large additional number of acres may be supplied with water, to the distance of eight leagues (20 miles) above the barrage. He represents that it will meliorate the canal navigation, improve both the Damietta and Rosetta branches of the Nile, give to the Mahmudiah Canal sufficient water for the largest vessels to pass between it and the river, will, at a small charge, enable the Government to make the canal of Suez navigable, and will supply the Kalish of Cairo sufficiently all the year round. He objects to the present system of irrigation, that the canals do not raise the level of the water, while every year they become more and more filled with mud, and convey a smaller quantity of water; and shews, that in the uncertainty of the inundations no calculation can be made of the probable agricultural produce of the country. He estimates that the work will require five years for its completion, and that the expense will be about a million and a half sterling. On this report, orders were given for commencing the stupendous work; but it seems to have been begun without sufficient consideration, and, after a large expenditure, has been again abandoned, or deferred. Immense masses of materials have been collected; a railway has been formed to connect the Nile with the quarries of the Mokattam behind Cairo; arrangements were also made for the supply of a large quantity of timber from the forests near Scanderoon; a large body of workmen were collected; and about £170,000 were expended in the first operations; but all is at present suspended; and it is probable that the scheme will be superseded by the introduction of less expensive hydraulic machinery. The opinion is gaining ground that the barrage would neither be the safest, nor the least expensive plan of irrigation.—(*Bouring's Report*, p. 60) Besides the great Mahmudiah Canal, from the Nile to Alexandria, which serves the double purpose of navigation and irrigation, many other canals have been recently constructed. In the Delta is the canal of Tantah, 54,000 yards long, and four wide, which preserves its waters throughout the year; the canal of Bouhyeh, 62,000 yards long, and four wide, on the Damietta branch; and that of Bahyreh, on the Rosetta branch, 104,000 yards long, and five wide. The Pasha has also constructed 38,000 machines for raising water, making the total number in Lower Egypt now exceed 50,000.—(*Ib.* 14.)

INTERNAL COMMUNICATION.—The Mahmudiah Canal and the Nile are the most active, and indeed the only channels of communication for the principal markets of Egypt. From the smallest gungias to the largest maasbes, from boats of four or five tons to vessels of 120 tons burden, there is a perpetual activity on these two main arteries of trade. Boulak, the port of Cairo, and Atfieh, where the canal joins the Nile, are the principal places of shipment and landing. The cost of transit is subject to many fluctuations. The largest boats, or maasbes, are only employed during the period of high inundation, and convey from Upper Egypt wheat, barley, and pulse. The navigation of the Nile employs a great number of the natives, who are generally strong muscular men. They undergo severe labour in rowing, pulling, and towing; but are very cheerful. In consequence of the continual changes which take place in the bed of the river, the most experienced pilot is liable frequently to run his vessel aground; and, on such occasions, it is necessary for the crew to leap into the water to shove off their boat with their back and shoulders. On this account, also, the boats are generally made to draw more water

at the head than at the stern; and hence the rudder is necessarily very wide. The better kind of boats, which are very numerous, are of a simple but elegant form, generally between thirty and forty feet in length, with two masts, two large triangular sails, and a cabin next the stern, usually about four feet high, and occupying about a fourth or a third of the length of the boat; and in most of them the cabin is divided into two or more apartments. Sudden whirlwinds and squalls being very common, a boatman is usually employed to hold the sheet in his hand, so that he may let it fly at a moment's notice. The number of boats on the river is about 4500. There are also large vessels, called jerns, which sail between Alexandria and Rosetta, and are also employed in conveying merchandise from Damietta to the outside of the mouth of the river, to be thence shipped in vessels lying out at sea. In summer, these jerns even go as far as Cyprus and Syria, but they are often lost. The ordinary mode of travelling and conveying goods through the deserts, which border on all sides the cultivated land of Egypt, is by means of camels along unformed paths. The journey between Cairo and Suez, a distance of 80 miles, is accomplished in one day, in vans drawn by four horses, and containing six persons; and five stations are formed on the road for the accommodation of travellers. Sometimes travellers prefer to cross the desert between Cosseir on the Red Sea, and Kenneh on the Nile; and, to accommodate them, four wells have been put in good order by the Pasha. Ladies perform the journey in tachtruans, a sort of palanquins carried by camels. A project has been long in contemplation for a railway between Cairo and Suez. The engineering difficulties are not many, for, with the exception of a few miles of sand, immediately on leaving Cairo, and a short distance similarly inconvenient near Suez, there is a hard, stony, and level foundation throughout the line; but, as the quantity of goods, and the number of travellers, could not furnish anything like an adequate return for the outlay, the project has been postponed, if not abandoned. There is a daily post between Cairo and Alexandria, which conveys letters in from 30 to 36 hours, but takes only Government despatches, and such private communications as the Government permits. The merchants of Alexandria, however, have a post of their own, which communicates three times a-week with Cairo, and delivers letters on the fourth day. A line of telegraphs has also been established between the two cities, by which communications are frequently made. It is not often interrupted by fogs, and news are conveyed by it several times a-day in case of need. A regular post is established by Government for communication with all its officers, from the one end of Egypt to the other; but, on especial occasions, messengers are dispatched on dromedaries, which travel at the rate of seven or eight miles an hour; and sometimes letters are sent by messengers on foot. —(*Bouring's Report*, 72.)

DIVISIONS.

I. LOWER EGYPT or BAHARI.

Cities and Towns.

<i>Provinces.</i>	
CAIRO, . . .	CAIRO, Boulak, Fostat, Torrah, Suez.
KELVOUB, . . .	Kelyoub, Shoubra, El-Khaneah, Abou-zabel, Shybyn-el-Canter, Mataryeh, Atryb.
BELBEYS, . . .	Belbeys.
SHIBEH, . . .	Shibeh, Tel-bastan, Hedyeh.
MIT-CAMAR, . . .	Mit-Camar.
MANSOURAH, . . .	Man-ourah, Tmay-el-omid.
DIAMETTA, . . .	Diametta, Menzaeh, Fares-cour, San, Tennys, Tynch or Thineh, El-Arish.
MENHALLET-EL-KEBIR, . . .	Menhallet-el-kebir, Semenhoud, Abousir, Bahbeyt, Koumzalot.
TANTAH, . . .	Tantah, Zeffi.
MELYG, . . .	M lyg, Shybyn-el-kûm.
MENOUF, . . .	Menouf.
NEGYLEH, . . .	Negyleh, Terraneh, Omm-dynar, Wardan.
FOUAH, . . .	Fouah, Rashid or Rosetta, Dairout, Berenbal, Sa-el-hajar.
DAMANHOUR, . . .	Damanhour, Rahmaieh, Kourat.
ALEXANDRIA, . . .	Iskanderyeh (Alexandria), Aboukir, El Keyt.

II. VOSTANI and SAID, or MIDDLE and UPPER EGYPT.

JIZEH, or JYZEH, or	Jyzeh, Bedresheyn, Mitrahineh, Sakkara, Dashour, Abousir.
GEEZA, . . .	Atfeh.
ATFEH, . . .	Benisouef, Boush, Feshn, Abû-jirjeh, Behnesch, Samallout, Ahnas.
BENISOUEF, . . .	Medinet-el-Faïoum, Begyg.
FAÏOUM, . . .	Nimich-ibn-kha'im, Meilaoui-el-arish, Beni-hassan, Sheikh-Abadeh, El-Tell, Darout-el-Sherif, A-bimounein.
MINEH, . . .	Montslout, El-Cousich, Sanahou.
MONFALOUT, . . .	Siout, Aboutig, Sadich, Tahtah.
SIOUT, . . .	Girgeh or Jirjeh, Mensheit-el-nede, Hon, Akhnim, Kau, Madfounch, Denderah.
GIRJEH, . . .	Kenneh, Cous, Keft, Erment, Karnac, Luxor, Gournah, Medinet-Abou, Cosseir.
KENNEH, . . .	Esneh, Edfou, Assouan, Koum-Ombos, El-kab, El-Sag, El-helf, Selseleh.
ESNEH, . . .	

CITIES AND TOWNS.—**KAHEIRAH**, or **QAHERAH**, or **MISR-EL-KAUERAH** (the **GRAND CAIRO** of the Franks), the capital of Egypt, and the largest city of Africa, is situate on a sandy plain about half a mile from the east bank of the Nile, in 30° north lat., and $31^{\circ} 18'$ east long., about 25 miles above the point of the Delta. Cairo, seen at a distance on the west side, is beautiful, and appears truly worthy to be the metropolis of Egypt. Skirted by groves and gardens, its light airy structures seem to be based on a mass of verdure; long lines of buildings, of gaudy appearance, and infinitely varied in form, rise behind each other; and the palace and the citadel, cresting a steep projection of the Mokattam ridge, lead the eye of the traveller, as he approaches from the Nile, to that vast rocky barrier, which protects the city from the desert blasts, and which, differing in this respect from all other hills, appears red at a distance, even where its tops seem to blend with the sky. Viewed on the other side, from the citadel, Cairo appears a large crowded city, with grey, flat-roofed houses, and 130 minarets of mosques peering above the houses and the trees. The city is in form nearly a parallelogram, about two miles in length, by one in breadth, surrounded with stone walls, which are pierced with a number of fine gates; and a canal runs through the centre of the city, which is filled with water during the inundation, but with green mud, emitting pestilential vapour, in the low season. The streets are narrow, winding, and unpaved; some of them are indeed so narrow that two persons may shake hands from the projecting windows of the upper stories. The city is divided into 53 districts or wards, called *harah*, several of which are distinguished by their peculiar population; as the Jewish, the Coptic, the Greek, and the Frank quarter. There are, however, several large open areas, as the *Kara-middin*, the *Roumetieh*, the *Birket-el-fil*, and *El-Ezbekiyeh*; the last two of which are covered with water during the inundation of the Nile. Surrounded with houses, they present sometimes a magnificent spectacle. The houses are built of earth or bricks; most of them have two or three storeys; but, having their windows opening upon interior courts, their outside presents to the street the appearance of so many prisons. The houses of the higher public functionaries, civil and religious, are distinguished by their greater size, their less faulty construction, and more ornamental appearance. A multitude of mosques, some of them very elegant, covered with arabesques in fine taste, and adorned with rich and graceful minarets, give to the city an imposing and varied aspect. Four of these are particularly distinguished: that of *Touloun*, a vast work of the ninth century, considered to be the finest Arab monument in Egypt, though now half ruined; the mosque of *El-Hakim*; that of *El-Azhar* (*Loub-el-Ozab*), with a magnificent dome, and a college attached to it, where the most celebrated doctors of Islam are educated; and the mosque of *Sultan Hassan*, the most remarkable for the size and the height of its dome, and of its two minarets, for the variety of its marbles, and the arabesque ornaments wrought in hard stone, wood, and bronze. The citadel is situate on the east side of the city on a spur of the Mokattam, which overlooks it, and renders it incapable of defence. Part only of the old walls remain, the rest having been replaced by bastions and curtains in the European style; and, what is singular, the only portion regularly fortified is that least open to foreign aggression, the side facing the city. It contains a palace of the Pasha, which is a magnificent building, and a new mosque, which is the finest in Cairo. The celebrated hall of Joseph, a building supported on lofty and handsome columns, was removed in 1829 to make way for the new mosque; but Joseph's well still remains. It consists of two parts, the upper and the lower well, and a winding staircase leads to the bottom, a depth of about 250 feet. Both the well and the hall received their name from the Fatemite Khalif Yoosaf, and not from the patriarch Joseph, as has been sometimes alleged. The city is supposed to contain 35,000 inhabited houses, and about 250,000 people. There are 31 public baths, 1200 coffee-houses, and several fine bazaars. Without the walls, on the east side, are the tombs of the Mameluke kings, a dynasty of Circassians who reigned from 1382 to 1517, when Egypt was added to the Turkish empire by Sultan Selim. Attached to each is a handsome mosque, schools, and dwelling-houses; but they are now neglected, and are falling to ruin. Within a few years a good library has been formed in Cairo, by the subscriptions of English residents, and the greatest liberality is shewn in admitting strangers. Cairo was founded by Gohar, a general of El Moez, the first of the Fatemite Khalifs of Egypt, who, having been sent in the year of the Hejra 358 (A. D. 969) with a powerful army to invade Egypt, and having succeeded in conquering the country, founded a new city under the name of *El-Kaheirah*, which, in 362, became the capital. About a mile from the city, in a fine park, is the splendid hospital and medical school of *Casser-eb-Ein*.

In the vicinity are *Fostat*, or Old Cairo, on the eastern bank of the Nile, three miles south; *Boulak*, on the same bank, north-west, the port of Cairo, containing a custom-house, bazaar, baths, printing-house, silk-manufactories, fine gardens, and about 18,000 inhabitants. It is now a large town, with handsome new buildings, chiefly in the European style. *Shoubra*, a small village, with a fine summer palace of the Pasha, on the river; *Abou-zabel*, where there is a large hospital or infirmary, capable of containing 1800 patients, and a school of medicine and surgery attended by about 300 pupils; *Jyzeh*, or *Gyzeh*, or *Geeza*, or *Gheza*, on the left, or western bank of the Nile, a little below Fostat, a small but industrious town, regarded by some travellers as the most agreeable place in all Egypt. Gyzeh is the chief town of a prefecture or shire. Opposite to this town is the island of *Rhoda* or *Roudah*, covered with fine gardens, and containing at its southern point the famous *Nilometer*, which is a graduated pillar in a well, shewing the height of the annual inundation.

ALEXANDRIA, called by the Turks and Arabs **ISKANDERYEH** or **ISKENDEREH**, is situate at the north-west corner of Egypt, on the shore of the Mediterranean Sea, in $31^{\circ} 13'$ N. lat. $29^{\circ} 53'$ E. long. The modern town occupies a neck of land which joins the island Pharos to the continent. At the beginning of the present century Alexandria was a miserable place, with narrow dirty streets, and a scanty population of about 7000. It is now the great naval station of the Pasha's fleet, and the emporium of the greatly extended European commerce with Egypt, and already contains a motley population of 60,000, composed of all descriptions of Africans, Asiatics, and Europeans, and has become a respectable, if not a handsome city. The island of Pharos, which the Arabs call *Roudah el Tyn*, *garden of fig-trees*, which extends east and west on the north side of the city, consists of a dry saline soil, and dazzling white calcareous rocks, and is bordered with reefs, especially on the west side. At its north-eastern extremity, is situate the castle, a large, square, lofty building, surmounted by a lighthouse in the shape of a minaret, occupying, probably, the site of the ancient Pharos, one of the seven wonders of the world. The castle has been strongly fortified by the Pasha, and occupies a small island joined to the larger one by an artificial dike formed in part of ancient granite pillars laid across. This island and the isthmus occupied by the city, form two ports, the old port on the west, and the new port on the east. The old port is at the end of an extensive roadstead, the entrance to which lies through a chain of rocks which stretches from Cape Marabout on the mainland, to *Ras el Tyn*, fig-tree cape, the western end of the island. There are three channels into the road, the deepest of which will admit frigates. The port itself is sheltered from the violent winds that blow between north-west and north-east by the high coast of the island. The anchorage is good, and the port might be made one of the best in the world. The new port has also a line of rocks across its entrance, and is exposed to the violent north and north-east winds, which sometimes render anchorage impracticable. It is also very shallow in many parts. Upwards of 200 merchant vessels are frequently to be seen in the port at the same time. From 5000 to 6000 men are constantly employed in the dock-yard and arsenal. The naval hospital at Fig-tree point can hold 300 beds, in spacious, lofty, and well aired wards; there is another hospital in the arsenal for the workmen, and a garrison hospital in the suburbs of the town for 400 patients; there is also a lazaretto in the new port. But one great draw-

back is the want of fresh water; the inhabitants have to depend upon cisterns which are annually filled partly by the winter rains, and partly by water brought from the canal. To the south of the city, along the adjoining shore of the mainland, are the ruins of the ancient *Alexandria*, the city erected by order of Alexander the Great, 322 B.C., but of which scarcely a vestige now exists. Great part of the ancient site is enclosed by a double wall flanked with lofty towers, built by the Arabs; but it exhibits only shapeless heaps of ruins. It contains, however, at its north-east corner, two granite obelisks, still very entire, the one of which is erect, and the other lying near it on the ground. These are commonly called Cleopatra's needles, and are nearly of the same size; the whole height of the erect one, including the pedestal and three steps, is 79 feet. Near the centre of the enclosure stands the mosque of St. Athanasius, on the site of a church erected by that patriarch during the fourth century, and which contained the famous sarcophagus, supposed to be the tomb of Alexander, which is now in the British Museum. The cisterns also, for retaining the rain-water, are still in a great measure preserved, consisting of vaulted chambers supported by columns, which form arcades of two or three storeys. On the outside of the walls is the remarkable monument, called *Pompey's Pillar*, which stands on a mound about 40 feet high. The shaft, a single piece of red granite, is about 67 feet high; and, including the capital and pedestal, the height of the whole pillar is about 94 feet. It is of the Corinthian order, but in bad taste. On the west side of the plinth of the base is a Greek inscription, from which it would appear to have been erected in the time and to the honour of the Emperor Dioclesian. Its foundation rests on a piece of yellowish breccia, with hieroglyphics, placed with the wrong end upwards. Near the south-western corner of the walls, in the calcareous rock which faces the sea, are almost countless excavations which once formed part of the necropolis or burial place of the Alexandrians. Fifteen miles north-east of the city are the castle, island, and bay of *Aboukir*, so renowned for the battle of the Nile 1st August 1798, and the battle of Aboukir 21st March 1801.

The only other towns deserving notice in Lower Egypt are *Rosetta*, *Damietta*, *Menhallet*, *Tantah*, *Semenhoud*, *Mansourah*, *El-Arish*, and *Suez*. *Rosetta*, which stands on the western bank of the western Nile, about five miles from the sea, is a well built town, surrounded by low walls, and containing 15,000 inhabitants; but the formation of the Mahmudiah Canal has diverted its trade to *Fouah*, which is improving in extent and wealth at the expense of Rosetta. *Damietta*, or *Damiatta*, or *Dimyat*, a large, irregularly-built town, stands on the right bank of the eastern Nile, about 7 or 8 miles from its mouth. It used to be the seat of a large trade, chiefly contraband, but it has no harbour, vessels being obliged to land and take in their cargoes at the mouth of the river on the outside of the bar, and the goods are carried to and from the city in boats. Its population has been estimated so high as 70,000 or 80,000; but, like Rosetta, it is now a place of no importance, nor does its limited population allow it to rank among the large towns. *Menhallet-el-kebir*, or the Great Quarter, which is considered the chief town of the Delta, is situate about 55 miles S.E. by E. from Rosetta, 43 S.W. from Damietta, and 63 nearly north from Cairo. It was also considered the most industrious manufacturing town in Egypt; the chief fabries being those of silk, and particularly a sort of linen cloth with silk borders, used in the baths, with which it supplies the whole country. Population 17,000. *Tantah*, 20 miles S.W. of Menhallet, a town of 10,000 inhabitants, chiefly supported by the pilgrims that flock to the tomb of Seid Ahmed el Bedaouy, who died in the thirteenth century with great reputation for sanctity. So many as 150,000 persons sometimes assemble, and the mosque, which contains the holy shrine, is one of the most splendid buildings of modern Egypt. *Semenhoud*, supposed to be the ancient *Sebennytus*, which gave its name to a branch of the Nile, is situate on the western bank of the river near Menhallet, and is a flourishing town of 4000 or 5000 inhabitants. *Mansourah* is a large town on the right bank of the Nile, 10 miles below Semenhoud. *El-Arish* the frontier town of Egypt, towards Syria, is a miserable place in the midst of a desert, on the shore of the Mediterranean Sea. It stands on an eminence among sand-hills and clumps of trees, about half a mile from the sea; and at the distance of 174 miles E.N.E. from Cairo. It is supposed to be the ancient *Rhinocorura*. *Suez* or *Sauweh* (i.e. the mouth or opening), is a very miserable town, situate at the head of the western gulf of the Red Sea, about 70 miles almost due east of Cairo, by the shortest line, but the actual distance on the usual road exceeds 78 miles. It is nevertheless important as the best naval station for the trade carried on between the Mediterranean and the Red Sea. It is a poor ill-built town, situated in a desert; it receives all its provisions from Cairo, and had till lately no water nearer than 12 miles, which even then was very brackish. In consequence, however, of experiments lately made, water has been found in sufficient abundance at no great depth, in the desert. In the roadstead there is very good anchorage for ships of 800 or 1000 tons. The high road between Suez and Cairo has been furnished with three stations for the accommodation of travellers.

In Upper Egypt, the only towns of modern importance are *Atfieh*, *Benisouef*, *Medinet-el-Faioum*, *Minieh*, *Ashmounin* or *Eshmouein*, *Es-Siout*, *Akhmin* or *Ekhmin*, *Girgeh*, *Kénich*, *Esnch*, *Edfou*, *Assuan*, and *Conseir*. *Atfieh*, or *Atfih*, a town of 4000 inhabitants, stands on the right bank of the Nile, in lat. 29° 28' north, and is the capital of a prefecture. *Benisouef*, the residence of a mamour or governor of a province, is a place of some importance, on the left bank of the Nile, about 60 miles above Cairo. It contains several mosques, caravansaries, and large private houses; with an extensive, well supplied bazaar, which is frequented once a-week by the peasants of the country round. The great sugar plantations of Egypt commence a little to the north of Benisouef; and these, together with the durrah, seem to occupy all the industry of the inhabitants, there being few fields of tobacco, wheat, cotton, or indigo. Opposite to Benisouef is the road to the convents of St. Anthony and St. Paul, the former named after the founder of monachism, the latter after the first hermit. St. Anthony or *Dair* or *Deir Antonios*, is about 76 miles from the Nile, and 15 from the Red Sea, and stands on the south side of the Wady el Araba. The other convent, called *Deir Bolos*, lies beyond the eastern corner of the Kalallah or Kalil mountains, only 9 miles from the coast. *Medinet*, the chief town or capital of Faioum, is a large populous city, 50 miles S.W. of Cairo; and occupies the site of the ancient Arsinoë, on the canal of Joseph, just before its separation into nine branches. The city contains several fine mosques, and is surrounded with beautiful gardens. *Minieh*, on the left bank of the Nile, 28° 8' N. lat., the capital of a large district, is a pretty town, with a considerable population. "The city of Minieh," says Mr. St. John, "contains several mosques, straight clean streets, and rather neat shops, and appears to be more opulent and populous than any of the towns farther down the river."—(1. 251.) Mr. Webster, however, says that "the village is small, with an immense number of tombs, covering many times the space itself occupies." *Ashmounin*, on the left bank, at a little distance from the river, in lat. 27° 48' N., is a town with a population estimated variously at 4000, 6000, 7000, or 10,000. *Es-Siout*, or *As-Siout*, the capital of Upper Egypt, about a mile and a half from the left bank of the Nile, 27° 9' N. lat., is a place of considerable extent, nearly circular, half a mile from the river, and surrounded by spacious gardens, in the midst of sand-hills. The population is about 12,000; the houses are neat and well built, and much cleaner than ordinary. It carries on a considerable trade in linen cloth, earthenware, natron, and opium. A cotton manufactory was established here, several years ago, which gave employment to 800 men and boys; but the climate seemed to militate against it. The dust brought by the Khamseen winds insinuates itself among the machinery, impedes its motion, and with the heat, which warps and splits the wood-work, soon renders it useless. The dryness also of the atmosphere weakens the strength of the cotton, and makes the threads snap. *Akhmin* or *Ekhmin*, on the right bank, in lat. 26° 32', is a town of 10,000 inhabitants, with a large cotton factory, and the ruins of a temple and catacombs. *Girgeh* or *Jirgeh*, formerly the capital of Upper Egypt, which derives its

name from a monastery dedicated to St. George within the walls, is still a considerable place, containing nine large mosques, whose elegant minarets and spacious domes standing in the midst of luxuriant date trees, which give the place the appearance of a grove when viewed from the river, have an aspect of much grandeur. The city stands close to the river, on the left bank, in $26^{\circ} 20' N.$ lat. The private houses, two or three storeys in height, with neat latticed windows, are built with sun-dried bricks, and appear to be larger and more commodious than in the majority of Egyptian towns; but cleanliness is by no means the characteristic of its inhabitants. *Kenneh* or *Gheneh*, on the right bank of the Nile, $26^{\circ} 10' N.$ lat., is famous for its manufacture of pottery called *bardaks*, made of porous clay, and in great request all over Egypt as water-coolers. The town also derives some importance from its situation on the road to Cosseir, so that the greater part of the trade of that port with Egypt passes through it. It is, on the same account, the place of assemblage for the African hajees or pilgrims on their way to Mecca. The road to Cosseir lies almost due east through the desert, a level tract quite practicable for wheel-carriages. *Esneh*, the last great town which occurs in ascending the river, situate on its left bank, in $25^{\circ} 18' N.$ lat., in a plain of considerable extent, is a trading place, and the rendezvous of the caravans of Dar-Fur and Sennaar. It has manufactories of cotton-cloth, pottery, and a kind of shawls called *milayah*; and is famous throughout Egypt for a great camel-market or fair. It occupies the site of the ancient *Latopolis*, among the remains of which is the beautiful portico of a temple, now used as a cotton warehouse. *Edfou*, a small town of about 2000 inhabitants, on the left bank of the river, $25^{\circ} N.$ lat., where is made a kind of earthen vessels, of the same shape as those represented in the ancient paintings. *Assouan* or *E'Soan*, in Coptic *Souan*, which signifies "the opening," the Latin *Syene*, on the right bank of the Nile, in $24^{\circ} 5' 30'' N.$ lat., is a small town with considerable trade. It is surrounded on all sides by dark and rugged mountains, which consist of that rose-coloured granite which from this place is called *syenite*; and round the town for several miles are the quarries from which the ancient Egyptians procured the granite used for building their temples. The town is scattered in a straggling irregular shape on the slope of a barren hill; it is, however, considered the most romantic spot in Egypt. The Nile here has the appearance of a narrow lake surrounded by bare but picturesque rocks, at the foot of which is seen a belt of bright verdure, interspersed with scattered groves. There are but few ruins of the ancient city. *Cosseir*, or *Kosseir*, or *Kosair*, or *Kosayr*, or *Qosseir*, is a port on the Red Sea. The town is an assemblage of Arab huts, built of wood and mats, situate in a very poor and barren country, without any good water but what is brought from Arabia or the Nile. It has, however, a considerable trade, though its harbour is small, and the anchorage unsafe for ships during several months of the year. Cosseir is 119 miles from the Nile at Kenneh, but only 108 from *Koitos* or *Keft*; the road passes over a perfectly level tract passable by carriages. It is situate in $26^{\circ} 6' 59'' N.$ lat., and $34^{\circ} 23' 30'' E.$ long. Between Cosseir and Kenneh there are eight wells, four of which have been put into good order.

ANTIQUITIES.—Egypt possesses many charms for the traveller, and, in respect of antiquities, bears the palm above every other country. The celebrated PYRAMIDS demand our first attention. The principal of these, three in number, are situate on a platform of rock, about 100 feet above the level of the Egyptian plain, at the distance of five miles S.E. of Geza. The largest, called the pyramid of Cheops, occupies a base of 767 feet square, and rises to the height of 479.640 feet. It is built, like the others, of large blocks of stone, which form so many gigantic steps (above 200 in number) to the top, where there is a small platform, affording an extensive view over a landscape of the most extraordinary features. To the south, scattered in irregular groups, are the pyramids of Sakkarah. *Abousir*, and *Dashour*, glittering in the sun like enormous tents, and appearing from their number, and the confusion of their arrangement, to extend to an unknown distance into the desert. On the west is the wilderness of Libya, stretching to the edge of the horizon; whose boundless undulations, apparently destitute of the very principle of vegetation, seem to be the prey only of the sand storm and the whirlwind. In the foreground the sand swells into hillocks resembling the kernels of new pyramids. To the north and the east, the landscape presents a striking contrast to the savage scenery of the other sides; the valley of the Nile is seen luxuriantly covered with verdure and beauty; corn fields, green meadows, wood of various growth and foliage, scattered villages, a thousand shining sheets of water, and, above all, the broad glittering stream of the Nile itself, spreading fertility and abundance like a beneficent god. Beyond this are the white buildings of Cairo, Boulak, and Rondah, backed by the long lofty range of the Mokattam hills, reflecting the bright rays of the sun. Or, when the Nile is in flood, this blooming valley appears like a wide sea, with a few scattered islands and date trees peering above its smooth surface, with Cairo and the Mokattam hills forming its farther shore. This pyramid has long been open, and contains a small chamber, with a hollow sarcophagus, known as King Pharaoh's tomb. Several other apartments and winding passages have lately been discovered in its recesses by persevering travellers, particularly by Colonel Vyse, who has succeeded in revealing its whole internal structure. The next adjoining pyramid is that of Cephrenes, opened by Belzoni, who discovered that he had been anticipated by Arab investigators, several centuries earlier, but he still found in a sarcophagus some bones, which are believed to be those of a cow or ox. It is about 456 feet high. The next is the pyramid of Mycerinus; and numerous pyramids are found further south, for upwards of twenty miles, at *Abousir*, *Sakkara*, and *Dashour*; also in other parts of the country, and even in Nubia; but for what purpose, by whom, or when, such stupendous fabrics were erected, is quite unknown. About 300 paces from the second pyramid is the gigantic statue of the *Sphinx*. It was formerly covered to the neck with sand; but that having been cleared away by signior Caviglia, the length of the complete statue was found to be 125 feet from the fore part to the tail, with its paws projecting 50 feet forward. The breast, shoulders, and neck, are those of a human being, the body is that of a lion. The head-dress resembles an old-fashioned wig; the ears project considerably; the nose is broken; the face seems to have been painted red; the features are Nubian or ancient Egyptian; the expression is particularly placid and benign. It has been again covered up with sand to the neck.

THEBES, the city of the "hundred gates," the original capital of Egypt, now exists only in its ruins, which extend for many miles on both sides of the river, a little to the north of the latitude $25^{\circ} 40' N.$ The principal ruins are situate at Luxor (Lugosor, El Ugosor, or El Qosoor), Karnac and Med-amou, on the right, and Medinet-Abou and Gournah on the left bank of the river. The period of its greatest splendour appears to have been under the kings of the 18th, 19th, and 20th dynasties, which Champollion places between the years 1822 and 1300 B.C. At that time it appears to have been about 30 miles in circuit, and contained temples and palaces filled with immense wealth, which in later times was carried off by Cambyses, king of Persia. Laid waste by king Ptolemy Philadelphus, and destroyed (28 B.C.) by Cornelius Gallus, this ancient city has never again been rebuilt, and now presents only a mass of ruins, which may be regarded as the most magnificent, as well as the most ancient, in the world. Among the ruins on the left bank of the Nile are an immense hippodrome or circus; the enormous palace of Rhameses-Memamoun, at Medinet-Abou; the Memnonium of the Greeks, but which Champollion calls the Amenophion of the Egyptians, the ruins of which extend 1800 feet in length, and contain more than 18 colossuses, the smallest of which is 20 feet high; and near the bank of the river are two colossi in a sitting posture, 61 feet high. The most northerly of the two is called Memnon, but appears to be the image of king Amenophis III. of the 18th dynasty, and the celebrated statue of Memnon, of which the Greek writers report that its lips uttered musical sounds when they were first struck by the rays of the rising sun. The head of the younger Memnon, of extraordinary beauty, and

weighing 12 tons, was carried off by Belzoni, and presented by him to the British Museum. The tomb of Osymandias, as it is called by the Greeks, but whose proper title appears to be the Rhameseum, deriving its name from its founder Rhames the Great, is the most ruinous of the monuments of Thebes; among its most perfect portions are a large hall, of which 30 columns still remain entire; and the enormous wreck of the colossal statue of Rhames, which, though in a sitting posture, is 53 feet high above the base. The small temple of Athor is remarkable for its elegance and ornaments. The great Syringe, with its long corridors and large subterranean apartments. The ruins of Gournah present the imposing remains of the Menephtum, or the palace of king Menephtah I. Along the right bank of the Nile we find, at Luxor, the remains of an immense palace, built by Amenophis-Memnon (Amenoth III.) of the 18th dynasty, and Sesostris the Great. In front of it were two obelisks, of 72 and 75 feet high, each formed of a single block of rose-coloured granite, of exquisite workmanship, and beside them four colossal statues of the same material; behind these is an immense front or gateway, 50 feet high, leading into a peristyle of 200 columns, the largest of which are about 10 feet in diameter. According to Champollion this immense fabric was the work of Rhames the Great and several other kings. The smaller of the two obelisks was lately brought to Paris. At Katr-Karnac is the Sphinx alley, extending more than 6000 feet in length, between Luxor and Karnac, and containing so many as 600 sphinxes of colossal size. But it is at Karnac that the magnificence of the ancient kings is fully exhibited. In the ruins of this wonderful palace the traveller is astonished by the grandeur of the buildings, which seem almost too great to have been the work of man. It contains an avenue of single stone pillars, each 70 feet in length, but all of them thrown down; a hall 318 feet long by 160 wide, having its roof supported by 134 pillars, the largest of which measures 70 feet high and 11 in diameter; and the circumference of their capitals being 64 feet, a hundred men may easily stand upon each of them! In another court are two obelisks, 70 feet high, but only one of them is erect; and in another hall or court is the largest of the existing obelisks, which is 91 feet high. On the walls are exhibited the portraits of most of the kings, whose deeds are represented in tablets of colossal size. Among them are Menefth I. fighting with the enemies of Egypt, and returning in triumph; the campaigns of Rhames the Great; and also those of Sesonchis, who is represented dragging at his feet the Theban trinity Ammon, Mouth, and Khous, with the chiefs of more than 30 vanquished nations, among which Champollion has found the name, in hieroglyphics, of *Joudah-melek*, the king of Judah. To the west of Medinet-Ahoun are situated the tombs of the kings of the 18th, 19th, and 20th dynasties, cut in the calcareous rock, at different levels, in a dry valley, now called *Biban el Moluk* (tombs of the kings), on the left bank of the Nile. They are all of extraordinary splendour; the largest and most magnificent of them being that of king Rhames-Memnon, which is adorned with sculptures of the highest interest. One of its small side halls contains, among other things, a representation of the operations of cookery; another, that of the richest and most sumptuous furniture; a third exhibits every sort of military arms and ensigns; with the barks and royal barges fully decorated. Several of these royal tombs contain on their walls numerous inscriptions, made by travellers of all ages, from the days of the Pharaohs, the Persians, the Greeks, and the Romans, to the travellers of the middle ages and those of our own times. The *Necropolis of Thebes* occupies an immense extent of ground on the left bank of the Nile, where are found tombs of all the kinds in use among the ancient Egyptians. It is in these tombs that the finest mummies and the most ancient papyri are found. The village of Gournah, indeed, partly consists of this necropolis; the Arabs live in the very tombs, whose former inhabitants they use for fuel. The trade in antiquities has been, since 1817, the only occupation of this ferocious and brutalized tribe of thieves.

MEMPHIS, the second capital of Egypt in point of antiquity, stood on the left bank of the Nile, not far from the great pyramids; its finest buildings were destroyed by Cambyzes in the sixth century B. C.; and, at last in the seventh century of the Christian era the city was taken by assault and utterly destroyed by the Arab conquerors. Almost every trace of it has now disappeared, having been covered up by the annual deposits of the Nile, and the city is now represented by the villages of *Menf*, *Mitra-hineh*, and *Bedresheim*. Near Abousir, in this neighbourhood, also are found the catacombs of birds so famous in the narratives of travellers; they consist of extensive corridors filled from top to bottom with little jars containing the mummies of these animals.

SAIS, the capital of the last native kings of Egypt, before the Persian conquest, is now represented by *Sa-el-hadjir*, a miserable village in the Delta, 40 miles S. E. of Rosetta. It was represented as the mother city of Athens, whose patron goddess Pallas-Athené, was the *Neith* of Sais, with the letters of the name transposed in writing; though this fact is disputed by some modern antiquaries. All that now remains of the splendor of Sais, consists of some colossal mounds.

Mataryeh or *Mataria*, a small village, 6 miles N. E. by N. of Cairo, contains several remains of buildings belonging to the ancient *On* or *Heliopolis* (Sun-town), so called by the Greeks on account of its magnificent temple of the sun. It was one of the largest cities of ancient Egypt; but even so early as the first century of the Christ an era it was almost deserted, and many of its finest ornaments were carried off to embellish Rome, and more lately to adorn Constantinople. The ruins of the temple are still found, with the remains of a sphinx mentioned by Strabo, and a fine obelisk, consisting of a single block of granite, 68 French feet high, by 6½ broad at the base. *Helioys* or *Halbis*, 24 miles farther N., in the same direction, a village fortified by Joseph in 1558, is near the site of *Onion*, where was a Jewish temple, built on the model of that of Jerusalem, by Onias, son of the high priest Onias III.; where the same rites and ceremonies were practised as in the parent temple. It was closed by Vespasian, and afterwards fell to ruin. *Sun*, a fishing village near the lake Menzaleh, represents the ancient city called *Zam* by the Hebrews, and *Tanis* by the Greeks, and which was most probably the residence of the Pharaohs of Moses, and the scene of his miracles. It still contains several obelisks, and also some other remains. Near the south-eastern corner of lake Menzaleh, is a Turkish fort called *Tynch* or *Thineh*, in the vicinity of which are the ruins of *Pelusium*, the ancient bulwark of the north-eastern frontier of Egypt.

THEBES, near the left bank of the Nile, almost opposite Kennah, represents the ancient *Tentyris*. About three miles west of the village is the splendid and almost perfect temple of Athor, the Egyptian Venus, which is considered as the masterpiece of ancient Egyptian architecture. It contained a sculptured zodiac or planisphere, which was carried to France in 1821, and is now in the Louvre at Paris. Near Girgeh, 5 miles W. from the Nile, on the Bahr-Yu-out and the borders of the desert, are the remains of *Alydus*, accounted the second city of the Thebaid; and which contained a palace of Memnon, and the tomb of Osiris. Its ruins are almost completely covered with sand; but some of the buildings may be entered by the roof, where spacious apartments are found entire, adorned with hieroglyphs and paintings, the colours of which are quite fresh and brilliant. Splendid remains of temples are also found at Edfou, the *Apollinopolis magna* of the Latins; at Buschi; at *Kau* or *Gau*, the ancient *Antaeopolis*, on the right bank of the Nile, 27° N. lat.; at *Cous*, or *Apollinopolis parva*, a little to the north of Thebes; at *Sheshu-Atadeh*, the ancient *Antinoe* or *Antinopolis*, on the right bank, 27° 48' N.; at *Kuon-Obolos*, north of Syene, and various other places. The very temple of *Hermopolis magna*, on the left bank of the Nile, a little to the north of Antioch, was a few years ago undermined by the river, and destroyed. In its vicinity are still found the remains of a vast necropolis. A little farther north than Hermopolis, but on the right bank of the river, at the village of *Beni-Hassan*, are the remains of a place called by the Greeks *Sphen Antedon* (Diana's grotto), containing innumerable hieroglyphics, paintings, and other remarkable objects.

Assouan or Es Souan, more than any other place in the world, presents that confused mixture of monuments which, even in the history of the most powerful nations, reminds us of the impotence of man. Here the Pharaohs and the Ptolemies built temples and palaces, which are now half covered with loose sand; and the Romans and Arabs constructed forts and walls; while, on the ruins of all these buildings, French inscriptions bear witness to the presence of the soldiers and philosophers of modern Europe. In the neighbourhood of this remarkable place are the catacombs or hypogæes of Syene, and opposite to them on the south is a chain of beautiful and fertile islets. One of these, opposite Assouan, is the famous *Elephantine* of the ancients, now called *El-Sag*, where the remains of a nilometer are still to be seen; but the materials of its two temples have been carried off to build barracks and magazines at Assouan. A little farther south is the island of *El-Heif*, the ancient *Phile*, a beautiful little island, about 1000 feet long by 100 broad, rising in the middle of the river, and covered with columns, propylons, and towers, the ruins of its majestic temples, of which Denon distinguished eight, built apparently at different times, and quite separate, though some pains have been taken to combine those which were contiguous. The lowest cataract of the Nile is between *Phile* and *Elephantine*. The ancient geographers and historians speak of it as a prodigious fall, whose sound deafened the adjacent inhabitants; but at present the fall is very inconsiderable, and the river exhibits only a series of rapids, as it dashes through amidst the granite rocks that strew its bed. About 37 miles N. of Assouan, on the left bank of the river, is *Hajar Silsil*, where are the most extensive and remarkable quarries in Egypt, perhaps in the world. No monuments which exist above ground convey so grand an idea of the labours of the Egyptians as these quarries, the most remarkable of all their works. Passages, wide as streets, cut in the rock, and rising perpendicularly to the height of 50 or 60 feet on each side, sometimes straight, at other times winding, extend from the brink of the river into the very heart of the mountain; where the rock has been cut away and spaces cleared equal in size to the largest squares in London. Towards the north are seen innumerable chambers, like the dwellings of the Titans, and prodigious colonnades, extending round the base of the mountains. The rough-hewn irregular roof is supported by huge, square, or polygonal columns of solid rock, sometimes 80 or 100 feet in girth. Enormous blocks of stone, completely severed from the mountain, are placed upon smaller pieces ready to be moved; and others still more vast have been cut and carried away, the places from which they were taken exceeding 40 feet in length.—(*St. John's Egypt*, II. 14.)

About 160 miles E.S.E. of Assouan, at the head of Foul Bay, on the shore of the Red Sea, are the ruins of the ancient *Berenice*, where the main streets can still be distinguished, and even the materials of the houses, consisting of corals, madrepores, and petrifications, the product of the adjoining sea. Opposite to the town is a very fine natural harbour, but too shallow for large vessels, and obstructed by a bar of sand. The extent of the ruins is about 2000 feet by 1000, which might have contained about 10,000 people. The site is now quite deserted. About 20 miles inland are the famous emerald mines of the ancients in the *Jebel Zubara*; they have been opened by modern speculators, but have been found to contain only a few emeralds of inferior quality.

This subject is very far from being exhausted; but it is only the principal and more important of the ancient remains that our space will allow us to notice.

§ 2. NUBIA.

The name Nubia is vaguely applied by European geographers to the vast region which extends southward from Egypt to the northern borders of Abyssinia, and eastward to the Red Sea. It never formed a separate kingdom or political division of Africa; but has, on the contrary, been always divided among a great number of tribes of different lineage, and contained within its limits several contemporaneous independent states. Of late years, however, it has all been subjected to the dominion of the Pasha of Egypt, and garrisoned by his troops. Strictly speaking, it is only the northern part of the region that is called Nubia; the more southerly districts, above Wady Halfa, stretching to the Red Sea and the borders of Abyssinia, were formerly known as the *Kingdom of Sennar*, and are now called by the Turks *Bilad-es-Soudan*, or the country of the blacks, a name, however, which they extend as far west as Bornou, including many countries not subject to the Pasha. The greater part of the country consists of frightful deserts; that which is called the desert of Nubia extends on the east of the Nile from Assouan to Goos. The traveller through it constantly traverses deep sand or sharp stones. It is not, however, an unvaried plain; for it contains hills which rise above 1000 feet, and is interspersed with wadis or valleys, that afford a supply of water, and support some trees, shrubs, and grass. In several places, however, the ground is covered with a layer of rock-salt, or studded with masses of granite, Jasper, or marble. Now and then there occurs a grove of stunted acacias, or tufts of *ecolocynth* and *senna*. The traveller often has access to no water to allay his thirst, except what is brackish or putrid; for the savage inhabitants lie in ambush near the few springs which the country contains. The western desert, less arid and less extensive, is called the desert of *Bahigouda*. Between these two wildernesses lies the narrow valley of the Nile, which, though deprived of the advantages of the regular inundations, in consequence of the height of the ground above the surface of the river, contains some districts, and more particularly islands, where a high degree of fertility rewards the industry of those who raise, by artificial means, the waters of the river to irrigate their lands. In many places the cultivable ground is only a few feet in width, while it increases in others to a quarter of a mile; but in some places the desert approaches to the very edge of the river. The southern parts of the country, which are watered by the Tacaze, the Azrek, and the Abiad, present a very different appearance. Along the banks of these rivers are immense savannahs, exhibiting at times, wide, boundless forests of gigantic grass, alternating with thickets of mimosa, leagues in extent, which are crossed and interwoven with thorny parasitic plants, impenetrable to man, and are the retreat of lions, tigers, and hyenas. Southwards, in the province of Fazuolo or Fasoglo, the plains are bordered with mountains of picturesque forms, but low, not exceeding, it is supposed, 3000 feet above the level of the sea. They do not form connected chains, but stand isolated on the immense savannahs.—(*Russegger, in Athenæum*, May 5, 1838.)

From January till April the country is burned up with intolerable heat. The thermometer sometimes reaches 119° Fahrenheit, and the burning sands render travelling impracticable, except by night. The rainy season lasts from June till September, with frequent irregularities, covering the habitable country in the south with verdure; but frequently, the extreme heat, with the rains, and the formidable swarms of the salt-ticks fly spread desolation even over that region. The northern limit, however, of the tropical rains is about 18° N. lat.; and the tract of country between that and 12° 23', or even lower, is said to be the driest on the globe, and probably the hottest. The durrah and the zamzam are the principal sorts of grain, though wheat and millet are also cultivated. Two sorts of *senna* are exported; but the sugar-cane, which abounds along the banks of the Nile, is not turned to any account. The ebony tree predominates in the forests, which also contain many species of palms, particularly the date tree, of which so many as 20,000, between Ibrim and Korosko, are taxed by the Pasha. The *acacia-vera* and *mimosa-nilotica*, extend from Egypt to Dar-Fur. The grass of the plains attains a height of twelve or fifteen feet, forming a mass as impenetrable as a wall; it is even difficult to form an idea of the grass forests which are found chiefly in the vicinity of the great rivers. Elephants, rhinoceroses, gazelles, ostriches, giraffes, and other usual African animals, are found within the limits of

Nubia. Wild dogs and foxes appear to be numerous, as Ruppell has discovered no less than four species. The variegated fox-dog is ochre-coloured, with thick fur, variegated with black; it was found both in Nubia and Upper Egypt, where it lives in the deserts, but does not burrow. The Nubian dog or rather wolf, which appears to be rare, is light grey, marked with a few black spots on the back, and has a black tail. The Kordofan fox occurs also in Nubia; it is nearly related to the fennec, which was also found by Ruppell in the neighbourhood of Ambukol, and in the desert of Korti, where it lives in holes dug by itself, and not on trees, as Bruce describes those of Abyssinia. Several birds appear to be peculiar to this region, or at least have not yet been known to inhabit any other part of Northern Africa; such as the occipital vulture, first discovered by Burchell in South Africa. It inhabits the borders of both Nubia and Abyssinia. Bustards, shrikes, thrushes, quails, and partridges, are also mentioned by travellers.

The high lands of northern Nubia are inhabited by two nearly independent nomadic tribes. One of these tribes occupy the western bank of the Nile, and are called the *Barabras*; but they call themselves *Noubah*, *Kenouz*, &c. Barabra and Bereber is the general name by which the Nubians are known in Egypt, and according to Burchhardt, it seems to be derived from *Berber*, the name of a wady or district of Upper Nubia, on the right bank of the Nile, about 18° N. lat. The Barabras are a very lean race of people, apparently destitute of both fat and flesh, and consist of nerves and sinews with a few muscular fibres, more elastic than strong. Their shining skin is of a transparent black and brown; but this is the only resemblance they bear to the negroes of Western Africa. Their hollow eyes sparkle under an uncommonly projecting eyebrow, their nostrils are large, the nose sharp, the mouth wide, but the lips thin. The hair of the head and beard is thin and collected in small tufts. Wrinkled at an early age, but always lively and nimble, they only betray their age by the whiteness of their beards. Their physiognomy is cheerful, and they seem to be lively and good-humoured. The Nubians, says Mr. Holroyd, are a fine, strong, hard-working, industrious people; they possess a considerable share of pride and natural courage, and condemn most violently the unnatural propensities which are common among the Turks and many of the Arabs. The women are remarkable for their chastity, and their feelings are social and domestic. There are very few schools among them, and a man who is able to read and write is accounted a person of consideration. The eastern deserts, from Cosseir to the south of Nubia, are occupied by the *Ababdes*, a people who differ entirely in customs, language, and dress, from the Arabs found in Egypt. They are black, but have the same form of head as Europeans. Their heads are uncovered, but their hair is worn long. Their clothing consists of a piece of cloth worn over the loins. They anoint their bodies, and particularly their heads, with fat. They have no fire-arms, and few horses; they rear a sort of camel which they call agwine, which is smaller, better made, and more active than the common species. They are Mahometans, but not very rigid in their faith; and they bury their dead by covering their bodies with stones. The *Sheggia*, *Sheggica* or *Shaykie*, are a race of negroes once peculiarly roving, fearless, and warlike, who occupy both banks of the Nile above Dongolah. They had numerous slaves, whom they employed in tilling the ground, and other laborious duties, while they devoted themselves entirely to arms; but in consequence of a desperate battle with the Egyptian troops at Korti, in which they were entirely discomfited, they are now, like the other Nubians, subjects of the Pasha. In 1837, Mr. Holroyd found them reduced to poverty and the greatest state of degradation by Turkish misrule and despotism.

The *Noubah* are a gentle race of negroes, in the province of Sennaar, with small features, woolly hair, flat noses, and speak a soft sonorous language totally different from that of their neighbours. They are idolaters, and in some respects Sabians, for they always do homage to the moon. They are circumcised; but keep herds of swine, and eat pork freely. In 1504, a negro nation, till then unknown, came down the Abiad, and subdued the Nubians. They called themselves *Shillouks* or *Shellukhs*, and founded the city of Sennaar on the Azrek. They were originally idolaters, but their intercourse with Egypt has produced their conversion to Islam.

The people who dwell along the Nubian shore of the Red Sea appear to be of Arab origin, and still preserve in a great degree the habits of the ancient Troglodytes or dwellers in caves. They speak the Gheez language, a dialect of the Arabic. They are in the lowest stage of savage life, and derive their principal support from fishing. Towards the north-east, however, near Foul Bay, are a people of somewhat better habits, called the *Bisharens* or *Bejahs*, who lead a nomadic life; deriving abundant food from the milk and the flesh of their camels, cattle, and sheep. Bruce believed that they spoke a dialect of the Gheez, but the Arabian historians of Nubia make them belong to the race of Berebers or Barabras.

The old political divisions of the country have been obliterated by the recent Egyptian conquest, and we are not aware that the country has yet been divided anew into provinces and municipal districts. The cities and towns are few and unimportant; but the remains of ancient buildings and cave temples, along the Nile, chiefly in lower Nubia, form very attractive objects of curiosity to travellers and antiquaries. *Dongolah*, called also *Agouz Dongolah*, or Old Dongolah, the largest, richest, and most populous city of Nubia, during the middle ages, is now reduced to the size of a village, with about 300 inhabitants. It stands on the right bank of the Nile, in 18° N. lat. and 31° E. long. *Marakah*, or New Dongolah, a large thriving and populous town on the left bank of the Nile, about 70 miles N.N.W. of Old Dongolah, built several years ago by the Mamelukes, after their expulsion from Egypt, is the residence of a Turkish Aga, whose government extends from Wady Halfa to Wady Gammer. In the river to the north of Marakah is the magnificent island of *Argo*, about 30 miles in length, and 6 or 7 in breadth, formed by the rich alluvial deposits of the Nile, which produces grain, cotton, indigo, and dates. *Sennaar*, lately the capital of the kingdom of Sennaar, which extended over the greater part of Upper Nubia, and is said to have once had so many as 100,000 inhabitants, is now almost deserted, the people having emigrated to Aleis, ten days' journey to the south-east, at the period of the Egyptian conquest. The few who remain live in straw huts, with the exception of two or three slave merchants whose houses are made of mud. It stands near the left bank of the Azrek, in 13° 37' N. lat. and 33° 39' E. long. *Kartoom* or *Khartum*, at the confluence of the Abiad and the Azrek, is now the seat of government; it has sprung up since Soudan became subject to the Pasha, and contains about 15,000 inhabitants. *Shendy*, on the right bank of the Nile, about midway between the confluence of the Azrek and the Abiad, and the mouth of the Taccasse, a town of 800 or 900 houses, and a population of 7000, is now in ruins. Before the Egyptian conquest it was the principal commercial mart of Nubia, and a great slave market, lying on the route from Dar-Fur and Soudan to Souakin, where merchants and pilgrims took shipping for Jiddah. At Assour or Ilathour, a little village below Shendy, are the ruins of *Meroe*, a city celebrated for its monuments, its commerce, its oracle of Ammon, and its pontiff king, chosen, as was believed, by the god himself, from among his priests; and a little further down the river is the island of *Kourgos*, which contains three groups of ancient mausoleums, of a pyramidal form. Below the junction of the Taccasse, on the right bank of the Nile, is *Berber*, a town of 8000 or 9000 inhabitants, which is the rendezvous of the slave merchants from Sennaar and Kartoom, who proceed to Calro by the desert of Korosko. *Derr*, the chief town of Lower Nubia, is a small place, with a thriving and increasing population, on the right bank of the Nile, about 130 miles above Assouan. A few miles further up is *Ibrim*, a fort or castle on a perpendicular rock overhanging the river; but it is now in ruins, having been destroyed by the Mamelukes. *Souakin*, *Snakem*, or *Svakem*, the only seaport of Nubia, is situated on the west

coast of the Red Sea, in $19^{\circ} 1' N.$ lat., $37^{\circ} 30' E.$ long. This town is built partly on an island and partly on the mainland, and contains about 8000 inhabitants, who are chiefly Arabs and Bishareens. It is now a dependency of Egypt, and has one of the best and the most frequented harbours on the Red Sea. It is one of the most commercial places of the region of the Nile, and is a great market for slaves.

Abousambal (Abasambal, Abousimbil, Ebsambal, Ebsambol, Ebsambool, Ibsambool, Ipsambul, Ypsambul, on the left bank of the Nile, about 50 miles above Derr, is the most remarkable place in Nubia, and contains two temples which are considered as among the most precious remains of antiquity. The smaller of the two temples appears to have been dedicated to Athor (Venus) by the wife of Rhameses the Great, or Sesostris; and the larger seems to have been the work of Rhameses himself. They are both excavated in the face of the rock, and the larger one is adorned with colossal statues, hieroglyphs, paintings, and sculptures, which represent the person and the exploits of Rhameses, with the most curious and interesting details. This magnificent work was for a long time buried under the sand; but Belzoni, with the most persevering industry, succeeded in clearing it out; and it is in danger of being again overwhelmed. Other excavated temples and remains of buildings are found at *Dehob*, *Kalabshe*, *Girsha*, *Dakki*, *Derr*, *Eshke*, *Soleh*, and *Jebel-el-barkel*. The last is a lofty eminence, near Merawe, north-east of Old Dongolah, which presents, partly cut out of its rocks, and partly built along its sides, seven or eight temples, the largest of which may vie with the most magnificent monuments of Egypt. Near these temples are 17 pyramids, of no great size; but at El-Bellal, on the opposite, or left side, of the river, at the distance of seven miles, is a very magnificent range of pyramids, inferior only to the great piles of Egypt.

Beyond the limits of what is considered Nubia, the Pasha of Egypt also possesses *Fazuola*, or *Fasoglo*, a province of Abyssinia, to the south of Sennaar; and Kordofan, to the west of the Bahr-el-Abiad. *Kordofan* is, properly speaking, only an assemblage of little oases or wahs, separated by vast deserts from Dar-Fur, and the Bahr-el-Abiad. The greater part of its inhabitants are negroes, somewhat civilized, and principally employed in agriculture. The remainder consists of Dongolese, who are devoted to commerce, and of Arabs who wander over its deserts. Almost every person in Kordofan is a slave merchant. *El Obeid*, the chief town, once a flourishing commercial station, is now a mass of ruins; but its name remains attached to three stations situate near the site which it occupied, and named *Wady Naghle*, *Orta*, and *Wady Safec*. The population of the three, estimated by Ruppell at 5000, has now increased to 30,000.

The Pasha's revenue in Soudan is derived from his monopolies of Abyssinian coffee, gold, indigo, gum-arabic, and hides; taxation on the water-wheels; letting the customs; and his purchase of cattle and camels. But, though he derives considerable advantages from these sources, Mr. Holroyd was informed that his expenditure in Soudan exceeded his revenue annually by £14,000, and that he holds this country under the present system of tyranny and oppression, because he has never forgiven, still less forgotten, the fate of Ismail Pasha, his son who was burned to death, at Shendy. —(*Report of Arthur T. Holroyd, Esq. on Nubia, Soudan, Kordofan, &c. Appendix E. to Dr. Bowring's Report on Egypt and Candia.* London, 1840.)

§ 3. ABYSSINIA

Is situate between 7° and $16^{\circ} N.$ lat. and 33° and $45^{\circ} E.$ long. The accounts which we possess, however, do not admit of any exact specification of its boundaries; and the empire of Abyssinia being now entirely dissolved, the name has become a mere arbitrary designation of the large country of indefinite extent, watered by the upper branches of the Nile, and corresponding to the southern portion of the *Æthiopia super Ægyptum* of the Latins. The Abyssinians still call themselves *Itiopianum*, and their country *Itiopia*; but they prefer the name of *Agazion* for the people, and that of *Agazi* or *Ghez* for the kingdom. The name of *Habesh*, from which Europeans have formed *Abyssinia*, is an Arabic term, meaning "a mixed people," and is scornfully spurned by the natives.

Considered as a whole, Abyssinia forms a table-land gently inclined to the north-west, with two great declivities on the east and south sides, the former towards the Red Sea, and the latter towards the interior of southern Africa. This table-land is intersected with mountains, but very little is known respecting their direction or height. Travellers only speak in general terms of their extraordinary configuration; they shoot up almost every where in sharp peaks, surrounded with rocks which resemble the ramparts of ruined towns. Tellez considers some of these mountains to be as high as the Alps; but we nowhere find them capped with snow, except, perhaps, the Samen mountains in Tigre, on whose highest peaks M. Salt saw snow on the 8th of April. The eastern border of the country is formed by a high range of mountains, nearly parallel to the Red Sea, which divide the Alpine region of Abyssinia from the low country on the shore, and rise to such a height as to form a complete separation of seasons between the countries on the opposite sides. This is called the Taranta mountain, and may be considered as the wall or bulwark of the first of the terraces or table-lands of which Abyssinia consists. In the interior of the country enormous volcanic rocks form precipices on every side, and deep ravines, which are traversed by torrents. There are, in some places, glens so narrow, that the traveller riding through them often bruises his elbows, and, if he meets a caravan, is sometimes obliged to retrace his steps for half an hour's journey. There are also isolated summits 300 feet high, on the tops of which extend plains three or four leagues in length, containing cultivated fields, springs, and churches, and which serve as retreats to defeated combatants. These heights are generally impregnable, and some of them can be reached only by means of a rope tied round the body, by means of which the fugitives are hauled up. It often happens, indeed, that the low country is overrun and conquered, while the people aloft, in these natural fortresses, live undisturbed. These retreats are called *ambas*, and serve too often as places of refuge for turbulent characters. One of the most distinguished, though not the largest or strongest, stands on the southern frontier of Amhara, is named *Amba-Geshe*, and was formerly the place of confinement for the Abyssinian princes.

Besides the Nile and its branches, already described, the only rivers worthy of notice are the *Chaalä*, and the *Hawash*, both of which terminate in the lake *Ausa* or *Assal*, which is said to be 760 feet below the level of the sea, between 11° and $12^{\circ} N.$ lat. and 41° and $42^{\circ} E.$ long.; and the *Zebee* which drains a portion of the southern region, and probably falls into the Indian Ocean, near Zanzibar. There are several lakes, the largest and best known of which is that of *Dembea*, nearly in the centre of Abyssinia. It measures in Bruce's map 65 miles in its greatest length; but the area of its surface varies considerably with the seasons. It receives the waters of a prodigious number of petty streams from the mountains which embosom it; but its principal feeder is the upper branch of the Bahr-el-Azrek, which enters it on the west side, and flows out again at the south-east corner. The lake contains, according to Ludolf, eleven islands, the largest of which is called *Tzana*, whence the lake itself is sometimes called *Bahr-Tzana*, or the lake of *Tzana*.

Speaking generally, the elevation of the country, and its abundant waters render the temperature much cooler than that of Nubia and Egypt. The heat, judging by the feelings of the human body, is much less than that indicated by the thermometer. Some of the provinces are even more temperate than Portugal or Spain; but in the lower districts the effects of a suffocating heat, combined with

the exhalations of stagnant water, occasion elephantiasis, ophthalmia, and many fatal diseases. The winter, in so far as weather is concerned, begins in June, and continues till the beginning of September, during all which time the incessant rain, often attended with thunder, and dreadful hurricanes, puts a stop to agricultural labour and military operations. The other months are not entirely exempt from inclement weather. The finest are those of December and January. But the mountainous surface of the country occasions many variations of climate and season. In the east, below the mountains on the borders of the Red Sea, the rainy season only begins when it ceases in the interior, and that region is burned up at other times with intolerable heat.

Abyssinia is said to contain many mines of iron, copper, lead, and sulphur; and gold of extreme fineness is or used to be produced in Damota, and the shallow mines of Narea. Bruce also informs us that the finest gold is found in the western provinces at the feet of the mountains Dyre and Tegla; and along the western frontier M. Russegger has lately found a prodigiously large vein of quartzose granite, consisting of quartz, with disseminated copper and silver ores of various kinds. At the south-eastern border of Tigré there is a great salt plain which is said to extend from south-east to north-west for four days journey, and which took five hours to cross it, when it was visited by Mr. Coffin in 1809. For about half a mile the incrustation was slippery, and broke under the tread, but farther on, he found it to be hard, rough, and irregular, like a sheet of ice. On the west side he found the Abyssinians cutting out pieces like a mower's whetstone, which is done with tolerable ease, as the salt lies in horizontal flakes. The salt near the surface is pure and hard, but beneath, it is coarser, and requires some exposure to the air before it hardens. In some parts the incrustation is three feet deep; but, in general, at the depth of two feet, it is too much mixed with earth to be fit for use in its native state. This district supplies the whole of Abyssinia with salt; and the mineral, when cut into long flat pieces, is one of the principal mediums of exchange.

Though situated within the tropics, the character of the vegetable productions of Abyssinia is somewhat extra-tropical, bearing but little affinity to the vegetation of the opposite and western coasts of Africa in the same latitude. The chief alimentary plants are millet, barley, wheat, maize, and teff. All travellers concur in praising the fine wheaten bread; but that is eaten by people of rank only. The teff or tafo is a grain smaller than mustard seed, with an agreeable taste, and not liable to be spoiled by worms. It is commonly sown in all parts of the country, and from it the bread is made which is generally used by all classes. The bread made from it is soft and spongy, with a sourish, but not disagreeable taste; and from this bread also, the people make bouza, a kind of beer, which is the common drink of the country, by pouring warm water upon it toasted, setting it by the fire, and stirring it frequently, till, after three or four days, it acquires a sourish taste. There are generally two harvests; one during the rainy season, in July, August, and September; and the other in spring. At Adowah and the neighbourhood, there are three crops. Some vines are cultivated, and wine is made, though in small quantity. The people cultivate also great quantities of a herbaceous alimentary plant, resembling the banana, which serves them for bread, and which Lobo calls *ensete*. The papyrus is found also in the marshes as well as in Egypt; and Bruce asserts that the tree which produces the balm of Judea and myrrh is indigenous in Abyssinia, or more correctly speaking, on the coast of Adel. The whole of Abyssinia is scented with the perfumes exhaled from the roses, jessamines, lilies, and primroses, with which the fields are covered. The coffee shrub is also said to abound in the south-western parts of the country, and indeed is believed to have derived its name from the province of Kapha or Kaffa, where it is indigenous.

The animals of so extensive a country present, as might be expected, a great variety; but the zoology is very imperfectly known. It is only in the lower regions of forests that elephants and monkeys are found. The two horned rhinoceros is common; and both Lobo and Bruce think that the one-horned rhinoceros is also to be found. Hyenas are very numerous and ferocious, and prowling in the towns during night. There are also wild boars, and gazelles or antelopes; and, probably also, zebras. The cattle are numerous and of large size, and have horns of enormous length; there are also wild buffaloes, which sometimes attack travellers. The ass and the mule supply the place of the camel; while the horses, which are small but very lively, are only used for the purposes of war. Lions, too, with various kinds of leopards (one of which is black), and several species of dogs are mentioned by travellers. There are great numbers of serpents of remarkable species, and of enormous size. The lakes and rivers swarm with river horses and crocodiles. The varieties of birds are not less numerous; one of which is the great golden eagle. Travellers speak also of many kinds of wild bees, which build their nests under ground, and produce excellent honey; but the most remarkable insect is a fly, the *saltsalya*, the sting of which is dreaded even by the lion, and which forces whole tribes to change their residence. In size it is little larger than a bee, and has pure gauzy wings, without spot or colour. The head is large, and the mouth is furnished with three strong projecting hairs or bristles. As soon as this plague appears, and its buzzing is heard, the cattle forsake their food, and run wildly about the plain till they die, worn out by fear, fatigue, and famine. The inhabitants of all the countries from the mountains of Abyssinia northward to the confluence of the Nile and Tacazze are once a year obliged to change their abode, and seek protection in the sands of Beja. The locusts are still more destructive, laying waste whole provinces, and involving the inhabitants in the miseries of famine. Bruce speaks also of a black ant, nearly an inch long, which eat his carpets in shreds.

The Abyssinians or Agazians approach the European model, in respect of their handsome forms, features, and long hair; but they are distinguished from all other known races by a peculiar complexion, which Bruce compares sometimes to pale ink, and sometimes to an olive brown; and which, according to the French institute of Egypt, seems to partake of a bronze colour. The language called the Gheez, which is spoken in Tigré, is regarded as a dialect derived from the Arabic. The Amharic language has also many Arabic roots, but gives evidence of a peculiar origin in its syntax. It would appear, therefore, that Abyssinia, first peopled by an indigenous or primitive race, has received, more especially in its northern and maritime parts, a colony of Arabs. The Abyssinians are nominally Christians of the Jacobite sect, and used to have an ecclesiastical primate, called the Abuna, appointed by the Coptic patriarch of Alexandria; but in reality their religion is a corrupt mixture of Paganism, Judaism, and Christianity of the lowest kind, and has very little influence on their manners and conduct. They are deeply sunk in superstition, and are altogether in a very low state of civilization. They live in round huts with conical roofs of straw; a light cotton dress, some pieces of carpet, and a few articles of pottery, form their chief objects of luxury. Their children go naked till the age of puberty. The arts and mechanical professions are chiefly in the hands of strangers, and especially Jews, who furnish all the smiths, masons, and thatchers of the country. The GALLAS are a savage people who made themselves masters of the south-western provinces; and are distinguished from the Negroes by their low stature, deep brown complexions, and long hair. They live entirely on raw flesh; they besmear their faces with the blood of their enemies, and hang their entrails round their necks, or interweave them with their hair. Their ferocity and filthiness indeed surpass every idea that can be formed of them. They worship trees, stones, the moon, and some of the stars; and believe in magic, and a future state. The SHAGALLAS inhabit the wooded heights called Kolla by the Abyssinians, in the north-western parts and to the west of the Tacazze. They are decidedly Negroes, of deep black colour, with woolly hair; but their faces are not unlike those of apes. They spend one part of the year under the shadows of trees, and the rest in caves dug in soft rocks. Some of the tribes live on elephants and rhinoceroses, others on lions and boars, and some on locusts. They go quite naked, and

are armed with poisoned darts. The Abyssinians hunt them like wild beasts. The *Agows* form two tribes or nations; the one occupying the province of Lasta, around the sources of the Tacazze; the other around the sources of the Abawi, or Nile. Possessing fertile but inaccessible countries, courageous, and provided with good cavalry, they have maintained their independence against both the Gallas and the Abyssinians. Though they have been converted to Abyssinian Christianity, yet their principal worship is addressed to the spirit who presides at the source of the Abawi; and they every year sacrifice a cow to this spirit. The *GAFATES* are a numerous people who live in Damota, and speak a distinct language. Their country produces very fine cotton. The *Guragi*, a set of expert and intrepid robbers, live in the hollows of the rocks in the south-east of Abyssinia, in a country which produces musk, amber, sandalwood, and ebony. The *Dobenah*, a numerous tribe, live by hunting elephants and rhinoceroses between the Mareb and the Tacazze. But of all the people of Abyssinia, the Jews present the most extraordinary historical curiosity. They bear the name of *Falasi* or *Falasha*, or the exiles, and seem to have formed for ages a state more or less independent in the province of Samen, under a dynasty, the kings of which always bore the name of Gideon, and the queens that of Judith. Although reduced at last to very narrow limits, they could muster in Bruce's time a force of 50,000 infantry. But their royal family having become extinct, they appear to be now dependent upon the government of Tigré. A great part of them also live among the Shillouks along the banks of the Abiad. They are even much more ignorant than the Christians; they are ignorant of the tribe to which they belong, and do not know at what period their ancestors came into Abyssinia.

The old empire of Abyssinia was composed of several large provinces, of which the number and the names vary exceedingly, as reported by travellers. For a long period the once powerful empire, which during many centuries maintained its independence against the Moslems and the Galla, has been a prey to anarchy, and, in fact, has been completely dismembered. Among the many petty independent states which have risen upon its ruins, the three following appear to preponderate; namely, the kingdoms of Amhara, Tigré, and Shoa; the first comprising the provinces to the west of the Tacazze; the second, the provinces to the east of that river; and the third, the provinces to the south and west. The last appears to have been less injured by the civil wars than the others.

The kingdom of *Amhara* comprises the central provinces, and has long been in a state of complete anarchy; the members of the royal family are dispersed throughout the provinces, and live partly on the bounty of the chiefs, and partly by their own industry. *Gondar*, the capital, is situate in a fine plain to the north of the lake Tzana. It is very extensive, but, according to M. Rupprecht, two-thirds of the houses appear to be in a ruinous state, and its population does not exceed 6000.

The kingdom of *Tigré* is the strongest, from its position, as well as the warlike spirit of its people, and their commercial resources. Its chief town is *Antalaw*, containing about 1000 houses; but *Shellicout*, a large town or village, is the usual residence of the king. The palace, and the church, which is considered to be one of the finest in Abyssinia, are its principal buildings. Tigré, properly so called, may be regarded as the cradle of the Abyssinian empire. Its people are the true Abyssinians, and have extended their dominion over the adjoining region, which has been dignified with the title of kingdom, and is divided into several provinces; it contains several important towns besides those already mentioned. *Adowah*, the most trading town of Abyssinia, appears to have about 8000 inhabitants, the greater part of whom are Moslem. They manufacture a cotton cloth which circulates as money. It is a well built town, and was for sometime the capital of the empire. *Axum*, formerly the capital of a kingdom which extended over a great part of Abyssinia, and part of Arabia, is now a small town of about 600 houses; but it contains magnificent ruins, Greek inscriptions, and obelisks without hieroglyphics. Of the latter, two are still erect; the larger, a single block of granite 60 feet high, is covered with sculptures of elegant workmanship. At the northern end of the town is a fine church, where was preserved and continued the authentic history of Abyssinia, called the *Chronicle of Axum*, a copy of which was brought to Europe by Bruce. In the neighbourhood of Axum, is the monastery of Abba Pantaleon, remarkable for a small obelisk, and for a large Greek inscription on a rock, which is as old as the year 330 of the Christian era, and records an exploit of the Emperor Aetianus.

The kingdom of *Shoa* or *Shara*, includes the southern portion of the late empire, and the king, who is a member of the ancient royal family, has extended his dominion over many of the Galla tribes, and carried on an extensive slave-trade with his captives, whom he exports through Tajura, a sea-port town to the south-west of the strait of Bab-el-Mandeb. His capital is *Ankobar*, a small and unimportant place. Abyssinia contains many churches dug in the rocks. Alvarez has given a plan of the *nine churches* in a mountain of Lasta. These extraordinary buildings are surrounded by a cloister; their vaults or roofs are supported by pillars, and their walls are covered with sculptures, the greater part of which consists of arabesques of remarkable execution. Tradition ascribes them to Saint Lalibala, the most renowned of the emperors of the Zageen dynasty; whose tomb is placed in the church named Golgota. According to the same traveller, there are found in the plain, at the distance of some miles from these churches, buildings in ruins, which he compares to the ruins of Axum. Mr. Salt visited in Tigré the vast church of Abouhassoubba, on the road from Genatir to Antalaw; the walls of which are adorned with sculptures representing crosses, Ethiopic inscriptions, and paintings containing the images of Christ, the Apostles, and St. George.

The *SAMARA* or low country, between the eastern mountains and the Red Sea, is nearly uninhabitable from excessive heat and the scarcity of water. It is occupied by a number of small tribes more or less savage, who preserve their independence, and form as many states as there are chiefs. The principal places are: *Durora*, a village on the Bay of Amphila, inhabited by the Dumhocta, the most powerful tribe of the Danakil, a people who possess all the coast from Bab-el-mandeb to Arena; *Zulla* or *Adulle*, a miserable town on Annesley Bay, the residence of the chief of the Ilazorta; *Mas-suah* or *Massowah*, a small town of about 2000 inhabitants, on an islet of the same name, with a good harbour, the principal station of the maritime commerce of Abyssinia, but now in possession of the Pasha of Egypt; *Arkiko* or *Arkeeko*, a small town on the mainland, opposite Mas-suah, the residence of a naib, who recognises the sovereignty of Tigré, but is independent in the administration of his petty state.

Dhalac or *Dahulac*, is a large island in the Red Sea, opposite Arkiko, 35 miles long by 18 broad, in 15° 53' N. lat., and 40° 40' E. long. It is low, with a level surface, formed of coralline rocks covered with sand, and in summer destitute of herbage, with the exception of what is barely sufficient to feed a few antelopes and goats. In several places there are large plantations of acacias, but few of them are higher than eight feet. There are no springs, and the only water is that preserved in cisterns and tanks, of which there are a great number. The island contains 12 villages and two harbours for small vessels, named *Dhalac* and *Dobelow*. There is no sort of agriculture; the inhabitants consist of sailors and fishermen, with their families.

MOGHREB OR MAGHRIB.

ARDH EL MOGHREB is the name given by the Arabs to the countries of northern Africa which lie to the west of Egypt. The name signifies THE WEST; and the people of these countries are called by their oriental brethren *Moghrebins* or *Mogrubbins*, that is, *Westmen* or *Westlanders*. Moghreb is divided into four portions: 1. *Bilad-ul-Berber*, the country of the Berebers, or Barbary, subdivided into *Barka*, *Afrikiyah*, *Moghreb-ul-Ausat* (the Middle West), and *Moghreb-ul-Aksa* (the Far West, or Morocco); 2. *Bilad-ul-Jerid*† (the country of dates); 3. *Es Sahara* (the Desert); and 4. *Bilad es Soudan* (Negroland, or the country of the blacks.) *Bilad-ul-Jerid* is, properly speaking, only the southern portion of Barbary, comprising the region which occupies the southern declivities of the Atlas, as far as the Great Desert: it has no definite limits, and is rather a common appellation than a proper name; we shall therefore consider the first and second of these Arabic divisions as one geographical region, under the European name of *Barbary*; reserving a separate section for each of the other two.

BARBARY.

BOUNDARIES AND DIMENSIONS.—BARBARY comprehends that long narrow tract of country which forms the southern coast of the Mediterranean Sea, from Egypt to the Atlantic Ocean, being bounded on the north by that sea, and on the south by the ill-defined limits of the Great Desert or Sahara. It lies between the parallels of 28° and 36° N. lat., and between 11° 30' W. and 27° 12' E. long., extending about 2000 miles in length, and varying in breadth from a few miles to more than 400.

GENERAL ASPECT.—The Atlas mountains form the nucleus of Barbary; the western portion of the region is composed of these mountains, and their interjacent valleys, with a border of flat country of varying breadth, on each side of them, which slopes towards the Mediterranean Sea and the Atlantic Ocean on the one side, and towards the Great Desert on the other. Moghreb-ul-Aksa or Morocco, has its greatest length from south-west to north east, and lies between the Atlas on the east, and the Atlantic Ocean on the west. The country appears to rise by three great steps or terraces from the sea to the mountains; and is divided into three portions by the rivers Seboo and Om-erbergh. Of these, the northern portion, which extends from the Strait of Gibraltar to the latitude of Fez (with the exception of the northern spur of the mountains), is almost level to the foot of the Atlas. From the Seboo to the Om-erbergh, the country dips considerably to the west, and still more so from the latter river to the plain of Morocco. Throughout these plains there is a great want of wood; even on the skirts of the Atlas the timber does not reach a great size; but the capabilities of the soil appear to be remarkable. From the foot of Atlas to the Atlantic is one vast corn plain, which, by means of irrigation, might be rendered highly productive; but at present it is covered with weeds.‡ Moghreb-ul-Ausat, or the middle west, nearly corresponds in extent with Algiers, and is separated from Morocco by the extensive desert of Angad. Of that portion of the region which lies to the north of the Atlas, the soil and aspect are in general fertile and pleasant; but to the south of the mountains little else is to be seen than naked rocks, or plains scorched by the sun, and cursed with incurable barrenness. Even on the northern side, the fertile tracts are small in extent; vast plains destitute of trees, and bearing but scanty marks of vegetation, occur at frequent intervals; and the eye of the traveller is seldom refreshed by the appearance of human industry and cultivation. In Tunis, which comprises the greater part of Afrikiyah (*i. e.* the Roman province of *Africa Propria*), the cultivable plains are of considerable extent; and well-watered valleys occur among the spurs of the Atlas. The soil has been celebrated for centuries; it was once considered the granary of the world, and the most valuable province of the Roman empire. The fertility of the soil almost surpasses belief; the ground is soft and yielding, and so rich and productive, that it requires only to be turned up with a stick in order to yield any species of crop without manure, care,

* This word *Bilad* has several other forms, when expressed in Roman letters, as *Beled*, *Belled*, *Biled*, *Blad*, *Blod*, and means country, region, township, town.

† *Jerid* is the name of the dry branches of the date-tree, which are used as javelins.

‡ Capt. Washington, *Journal*, R. Geog. Soc. Lond. vol. I. But M. Graberg de Hemso does not exactly agree with him; for he tells us that in Morocco the land susceptible of cultivation does not exceed one-fourth part of the surface, though much of the other three parts consists of rich pasturage.

or toil. Notwithstanding the greater part of it is left uncultivated, except near the towns; and, according to M. Desfontaines, the ground throughout nearly the whole regency is impregnated with so great a quantity of sea salt, that the majority of the springs are saline. Speaking generally, sea salt, or chloride of sodium, is spread over the soil of Barbary in surprising abundance. In Tripoli, the desert presses forward to the sea, leaving only a few fertile tracts among the hills, or along the shore. The eastern portion of it skirts the greater Syrtis, the coast of which forms an extremely wild and dreary region, interspersed with small valleys or oases, where a few Arabs find pasture for their flocks and herds. It is not, however, entirely barren; for, though it is parched in summer, and then looks dreary, yet, after the autumnal rains, it is covered with a luxuriant vegetation. The soil is indeed sandy; but does not consist entirely of sand. Barca or Barka, which extends from the Syrtis to Egypt, is, speaking generally, a sandy desert; but certain portions of it are very fertile, and only require the hand of industry to make them exuberantly productive. The north-western tract, which is separated from the desert by a chain of mountains, was the Pentapolis of the ancients, and, from the care bestowed upon it by its inhabitants, arrived at a very high degree of cultivation. To the eastward, however, on the confines of Egypt, the country increases in sterility: the few patches of cultivation which it contains are situate near the coast, or form oases in the midst of the Lybian desert, which constitutes the western border of the region of the Nile.

RIVERS AND LAKES.—The rivers and lakes of Barbary are few and unimportant; only one of the former, the *Mejerdah*, is partly navigable, and that merely after the rains. The principal rivers are: the *Mejerdah*, which rises among the mountains of Hualak in Algiers, flows north-east, and enters the Mediterranean Sea at Porto Fariua; to the north of Tunis: the *Shelif*, which rises in a place called the *Sebbein Ain* or seventy springs, on the south-east side of Jebel Wanaseris, and falls into the Mediterranean a little to the north of 36° N. lat., and about 0° 12' E. long.; the *Molwiah* or *Mohalon*, which rises from the south-east side of the Atlas at the foot of the Shabat-Beni-Obud, and falls into the Gulf of Melillah. It is reckoned the largest river of Barbary, though, in summer, it is often dried up. The Atlantic Ocean receives the following:—The *Aoulkos* or *Luccos*, at El-Araish; the *Sebo*, which crosses the kingdom of Fez, from east to west, entering the sea at Mehediah, is said to be navigable for boats to Fez. The *Om-er-begh* separates Fez from Morocco, and falls into the sea at Azamor. The *Tensift*, called also *Wady Mara-kash* has its sources in the mountains to the east and south-east of Morocco, passes a few miles to the north of that city, and enters the sea between Mogadore and Asafy. It is fordable in many places in summer. There are also several rivers in Bilad-ul-Jerid which flow into the desert, and are absorbed by the sand, or form marshes, where their water is evaporated by the heat; but nothing positive is known concerning them.

The *Sibkah el Ludihi* (*Salt Lake of Marks*), also named *Bahirah Pharaoun* (*Pharaoh's Lake*), is situate in the southern part of Tunis, or Afrikayah, to the south-west of the Gulf of Khabz, and consists of a great extent of drift sand, some of which is dry and some wet, in which the tracks of caravans are marked by trunks of palm-trees fixed in the ground; from which circumstance it has received its name. It is about 80 miles in length, by less than 20 in its greatest breadth. After the rains it forms a great salt lake; but in summer it is nearly dry, and covered with salt. It contains several islands of firm soil, which are covered with groves of palms. This is the *Palus Tritonis* or *Lybian Lake* of the ancient geographers, the scene of many fables. Two lakes, named *Al Shot* or *Al Shat*, the one about 140 miles S.E., and the other 250 S.W., of Algiers; *Melgig*, not far west of Sibkah; and the lake *Beni Guni*, to the east of Tafilett, are large receptacles for the rivers of Bilad-ul-Jerid, and of much the same character with the lake of Marks. There are indeed several other lakes of the same kind, all of which are denominated *Sibkah* (i. e. salted earth). In winter they are usually covered with water, and then appear like so many great lakes; but, when dried in summer, they very much resemble large bowling greens, and are covered with beautiful turf. Some of them have hard and solid bottoms, without any mixture of earth or gravel, which retains the salt, and forms a crystalline crust after the rains. The *Lake of Bizerta* is a large double lake in Tunis, near the sea, with which it is connected by a broad canal flowing through the town. The lake *Fezarah*, south-west of Bona, is said to be 10 geographical miles in length by 6½ in breadth, but very shallow; it abounds with flamingoes and wild fowl, and its shores are frequented by snipes and wild boars. Along the west side of the Gulf of Sidra or the greater Syrtis, there is an extensive marsh about 100 miles in length, for 40 of which its breadth is between 9 and 15; and for the remainder, 2 or 3 miles. The water spreads itself in pools over this wide tract of country, communicating occasionally with the sea. Many of these pools are several miles in extent; and the marsh is very dangerous, if not wholly impassable, after heavy rains.

GULFS.—In the middle of the coast of Barbary are two Gulfs of great celebrity. The *Joun-al-Kabrit* (*sulphur bay*) or *Gulf of Sidra* or *Sert*, the ancient *Syrtis Major*, forms a deep indentation between Tripoli and Barca, measuring 246 geographical miles across its mouth, and the circuit of its shore is 422. The *Syrtis Minor* or *Gulf of Khabz*, forms a similar indentation, but of much smaller dimensions, between Tunis and Tripoli. It measures across the mouth only about 50 miles. The coasts of both gulfs are covered with a succession of little flat islands, sand-banks, and places with a small depth of water, the danger of which was much increased to the ancient navigators, by the flux and reflux of the waves occasioned by the violent north and east winds.

ISLANDS.—The only large island is that of *Jerbah* (*Jurbah*, *Gerbeh*), 23 miles by 16, situate at the south-eastern side of the Gulf of Khabz, and separated from the mainland by a channel scarcely a mile wide. It was called by the ancients *Lotophagitis* or *Meninx*, and was celebrated as the abode of the Lotopagi, or eaters of the lotus, a delightful fruit, said to have been so intoxicating that whoever partook of it straightway forgot his own country, and wished only to spend his life in the happy region where it was produced. It is described as resembling in taste the date, but of a saffron colour, no bigger than a bean, and growing in bunches like the myrtle berry. It is still found on the whole of this coast, is in great repute, and sold in all the markets, under the Arab name of *jube*. The modern inhabitants are celebrated for their manufacturing industry. The *Karkenah* or *Kerkeneh* islands, the ancient *Cercina*, lie on the north side of the Gulf of Khabz, are very low, flat, and covered with date trees; but otherwise not remarkably fertile. *Penon de Velez*, 77 miles S.E. of Ceuta, on the north coast of Morocco, contains a strong fort, which is used as a place of banishment for Spanish criminals. The *Jezirat-ul-Jofarin* (or *Zafarine*, or *Zaphran*), are three small islands in the Gulf

of Melillah, in lat. $35^{\circ} 11' N.$, and long. $2^{\circ} 26' E.$; one of which rises to the height of 440 feet. *Alboran*, a small island in the Mediterranean Sea, 125 miles E. of Gibraltar.

CLIMATE. — The climate is, on the whole, temperate in the maritime districts, which are protected from the hot winds of the desert by the high ridges of the Atlas, and at the same time exposed to the cool sea-breezes. Rain is frequent during the winter months; it is less copious during spring, and rarely seen in summer, which is consequently both unpleasantly hot, and often productive of formidable diseases. This, however, is not every where the case; for in the city of Tunis, notwithstanding the drying up of the lakes in summer, the lowness of the country, and the want of cleanliness which every where prevails, and produces the most offensive effluvia, fevers are by no means frequent, and epidemic maladies are almost unknown, with the exception of the plague, which is imported, and has visited Tunis less frequently than the other great cities on the African coast. In the winter, or rainy season, the mornings are usually sharp, and frost and snow are occasionally experienced; but these approaches towards cold are seldom either so rapid or so long continued as to compel the people to have recourse to artificial heat. Winter is also the season of verdure; the gentle degree of warmth which then prevails, accompanied as it is by rain, hastens the growth of a multitude of plants, and plants spring up in the open country as they do in more northern countries at the return of spring. As the sun advances northward, the rains become less copious, the heat increases, the rivers and lakes dry up, the air becomes scorching, the leaves of the trees lose their verdure, and every thing is burnt up. At this season, also, south and south-west winds aggravate the evil, by diffusing the noxious atmosphere of the deserts. Towards the end of August, the temperature, in general, becomes more moderate, and gradually falls during the succeeding autumn, which ends in November, when the winter or rainy season commences. The easterly winds, which prevail from March till September, are usually dry, though the atmosphere is cloudy; westerly and northerly winds blow violently in March, and are loaded with moisture, which falls in showers during the intervals of the gales. Notwithstanding, however, all its drawbacks, the climate of western Barbary, below the Atlas, may be said to be generally very fine; but in the southern districts, the atmosphere in summer is so hot and oppressive that the people quit their dwellings to live under the shadow of the palm-trees. In eastern Barbary the climate is extremely unpleasant; the heat of the day and the coldness of the night being equally insupportable.

VEGETABLE PRODUCTIONS. — The vegetation of northern Africa differs little from that of the northern and eastern shores of the Mediterranean. The soil of the plains generally resembles that of the rest of Africa, being light and sandy, and containing many stones; but the valleys of the Atlas, and those of the streams which descend to the sea, are covered with a compact, fertile, and well-watered soil. Hence the most common native plants flourish on their banks, or strike their roots deep into the sand, while the rarest species grow in the marshes and the forests. The arid shores are covered with numerous saline and succulent plants, and different kinds of hardy long-rooted plants, mixed here and there with heliopes and soldanella. The dry and rocky table-lands which occur in the interior, greatly resemble the downs (*llanos*) of Spain. They abound with scattered groves of cork-trees and evergreen oaks, under whose shadow, sage, lavender, and other aromatic plants grow in great abundance, and rise to an extraordinary height. The tall-stemmed genista, different kinds of cistus, mignonette, sumac, broom, aloe, euphorbium, and cactus, adorn the windings and the clefts of the rocks, where they furnish wholesome food and a shade for the goats. The forests which cover the northern sides of the mountains are composed of different kinds of oak, the acorns of which are eaten by the people. The mastic tree, the pistacia Atlantica, the thuya articulata, and the rhus pentaphyllum, are frequently found. The large cypress, like a verdant pyramid, stretches its branches towards heaven; and the wild olive yields excellent fruit without culture. All the valleys which have a moderate elevation form in April and May so many delightful retreats; the shade, the coolness, the bright verdure, the diversity of the flowers, and the mixture of agreeable odours, combine to charm the senses of the botanist. On the coasts, and in the plains, the orange tree, the myrtle, the lupine, the virgin's bower, and the narcissus, are in January covered with flowers and young leaves; but in June, July, August, and September, the parched and cracked soil is covered only with the yellow remains of dead and withering plants. Yet at this season the rosebay displays its bright flowers on the banks of all the streams, from the tops of the mountains down to the deepest valleys. Among the cultivated plants are hard wheat, barley, maize, the holcus sorghum, and the holcus saccharatus; rice in the grounds capable of being inundated; tobacco, dates, olives, figs, almonds, vines, apricots

jujebes, melons, pumpkins, saffron, the white mulberry, the *indigofera glauca*, and the sugar cane. The gardens yield nearly all the species of pulse known in Europe. Wheat is sown in autumn, and gathered in April or May; maize and sorghum are sown in spring, and cut down in summer; oats grow spontaneously. Some of the fruits, such as the fig, are inferior in quality to those of Europe; but the acorns taste like our chestnuts.

In Marocco, the cultivation of the land is pursued chiefly by the Moors and Arabs. The only trees on which any care is bestowed are the olive, date, palm, lemon, orange, apple, and pear. Wheat is the grain cultivated most extensively, and is of a quality equal to any in Europe. It yields a return of twenty-five for one; though in Algiers it is said the produce is generally only twelve for one. Barley is used as food by the Moors only in times of scarcity; but it is extensively consumed by cattle and poultry. It generally yields from twenty to thirty fold. Next to wheat, durrah (sorghum or millet) is the most extensively cultivated grain in Marocco, where it forms the principal article of food of the lower orders; it yields 140 fold. Maize is grown chiefly along the sea-coast, and in the southern provinces, and forms almost entirely the food of the slaves; its produce is often 300 fold. Rye, which grows in great abundance in the western provinces of the interior, is the only grain allowed to be exported; it is, however, of little value, and is rarely used as human food. The stalks of all these species of grain are burned on the ground for manure. Rice is produced in the western provinces of Marocco, but is so bad in quality, that the supply of the Sultan and his court is imported from America. Calavances are the vegetable most generally cultivated, but other vegetables, of various kinds, grow in abundance. Potatoes have been introduced, and thrive in the northern provinces; but, as they degenerate after the second or third crop, a renewal of the seed is necessary. There are also many other roots to which the Moors and Arabs have recourse for subsistence in times of scarcity. Various fruits, and aromatic plants are produced in abundance.

ANIMALS.—The animal kingdom comprises most of the species which are found in the rest of Africa, excepting the rhinoceros, hippopotamus, giraffe, zebra, and several of the monkey tribes. Barbary produces fine horses, and also two kinds of asses, the one large and strong, the other very small. The cattle generally are small and lean; the cows yield but little milk, and that is of an unpleasant taste. Goats and sheep are plentiful; but swine, being held in abhorrence by the Moslem, are found only in the houses of Europeans. Cats, dogs, and European poultry are common; and the Arabs pay great attention to the rearing of bees. Of all the domestic animals, the sheep are the most important in number and value. In Marocco alone (the only district where we have any approach to accurate statistical information) they are computed at forty or forty-five millions, of which no less than 700,000 are slaughtered annually at the grand festival called A'id-ul-kebir, on the last day of the Moslem year; on which occasion every male above the age of twenty is required to kill with his own hands one or more sheep, according to his means, and the number of his family. The quality of the wool, especially in the provinces of Temsena and Bled-Meskeen, is very fine, superior indeed to that of Europe, and is exported from Rabat and Sallee; the produce of the southern provinces, which is the most abundant, is exported from Mogadore. The amount exported, however, does not exceed 40,000 stones annually. The goat ranks next to the sheep, and contributes to a variety of useful domestic purposes, particularly as the cows yield but little milk, which is the case in all warm countries where they are not artificially fed. The goats in Marocco are estimated at 10 or 12 millions; the number of camels at half a million, and, as is well known, these form an important article in the wealth of an Arab. The horses in Marocco are estimated at 400,000, and are not allowed to be exported, except as a special favour. The asses amount to 2,000,000; the mules are found in still greater numbers, and a good mule is more valued than even a good horse. As dogs are never put to death in this country, they necessarily exist in offensive numbers, although the scanty provisions of the people leave them but little food to spare for their dogs. It is confidently asserted, that these animals are never affected with hydrophobia, either in northern Africa, or, indeed, in any Mahometan country; but, though they escape, mules, it is said, are subject to this malady in Moghreb-ul-Aksa. Not the least important among the animals of Barbary is the locust, whose multiplying power is almost incredible. It is said that one female lays 700,000 eggs in the sand, which are hatched in a short time. The locusts are eaten by the Moors.

PEOPLE.—The people of Barbary may be divided into seven classes: Moors, Arabs, Berebers, Shellukhs, Jews, Turks, and Negroes.

The *Moors* are generally the inhabitants of the towns and cultivated plains; and, though they speak a dialect of Arabic, their physical constitution, their complexion, which is whiter than that of the Arabs, their countenance, which is fuller, with a less elevated nose, and less expressive physiognomy, seem to indicate that they are a different race, descended probably from a mixture of the ancient Mauritians and Numidians with the various foreign races which have conquered or settled in the country. At present they constitute the higher classes in all the cities of Morocco, and fill all the chief offices of government; while in Algiers and Tunis they form the greater portion of the population. The men of the genuine Moorish race are above the middle stature, muscular, and have a grave and noble carriage. They have black hair, their skin is a little swarthy, but rather fair than brown; their faces are somewhat full, and their features are less strongly marked than those of the Berbers and Arabs. The nose is generally rounded; the mouth of middle size; and the eyes large but not lively. The men are rather fat, though sometimes handsome; the women are formed on a scale proportionate to that of the men; they have all black hair and beautiful dark eyes; and some of them are even extremely pretty. They never wear stays; and as excessive obesity is considered the perfection of female beauty, they do all in their power to become fat, and are of course very defective in shape. They deem it also a mark of beauty to have hanging breasts; and torture their children in attempts to draw down and lengthen them into the most hideous deformity. The children, however, of both sexes are extremely pretty, with a mild expression, and beautiful eyes, and are generally more intelligent, for their age, than their parents. The Moors exercise almost every calling known in Europe; they are joiners, carpenters, ropemakers, coopers, weavers, shoemakers, tanners, embroiderers, tailors, jewellers, watchmakers, blacksmiths, cutlers, armourers, and so forth. But these several trades are generally still in their infancy among them; and their work is performed in the slowest manner; but as they are very abstemious, while every article of food is cheap, they contrive, with very little labour, to maintain themselves and their families. All employment requiring exertion is shunned by them; they are fond, however, of riding on horseback; and horsemanship forms the pride and amusement of those who can afford it. Their feats in this art are often very wonderful; they are particularly fond of galloping, and then suddenly stopping; some will even lift articles from the ground while going at full speed; but they have not the art of training their horses to any sort of pace between a walk and a gallop. "The character of these Africans," says M. Grabeg de Hemso, "I can conscientiously aver, is made up of all that is meanest and vilest in the heart of man. They are now exactly the same barbarians as their ancestors were in the days of Sallust and Procopius; that is to say, they are fickle, perfidious, cruel, and incapable of being restrained by either fear or kindness. Even their countenance has in it something sinister and revolting, which cannot be contemplated without an involuntary shudder." Other travellers give much the same account of them. "The Moors," says M. Rozet (*Voyage dans la Regence d'Alger*), "are vindictive and treacherous, though devoid of general bravery or military talent. Neither are bad faith, perjury, and idleness, the only faults of this people; they are tainted with the most hideous and most revolting propensities. Their boasted abstemiousness is a mere consequence of their idleness. Those among them who can afford it live well; many of them now drink wine and spirits, and it is by no means uncommon to see Moors reeling along the streets of Algiers drunk. Indeed several public houses, kept by Spaniards and Italians, are filled with them from morning till night. Their known perfidy prevents them having any confidence in each other; their thieving propensities are beyond all belief; and there is no noble and generous feeling among them. They massacre without pity their enemies when defenceless. With so many vices they have no redeeming virtue that I know of." They are, of course, all Mahometans, of the sect of Malek; extremely fanatical, and, like the fanatics of other religions, consider their piety as a compensation for every moral defect, and heresy as a stain which can scarcely be rendered more tolerable by the brightest assemblage of moral qualities. In spite of their indolence, says M. Rozet, they generally receive a better education than the people of France. Almost all the men read, write, and know something of arithmetic; but the Koran comprises almost the only subject of their literary education. M. Rozet, however, met Moors at Algiers who were really well-informed men, and who spoke several languages, were tolerably well acquainted with geography, and even knew something of history. Music is nearly unknown among them.

The *Arabs* of Barbary do not differ essentially from those of Egypt and Arabia. Those of Morocco are chiefly Bedwins, or dwellers in tents, and lead a pastoral life.

They are hospitable, and faithful to their promise ; and yet they are noted as thieves. They are a hardy race, slightly made, and under the middle size. The girls when young are pretty ; but the women are very ugly, owing to exposure to the sun and hard work. — (*Capt. Washington, Journal R. Geog. Soc. Lond. I.*) The Arabs of Algiers may be divided into two great classes: those employed in cultivating the soil, and who occupy houses and cottages; and the Bedwins. They are generally tall and well formed; their bodies fleshy, without being either fat or thin. Their hair is black, their foreheads high, their eyes quick and piercing, their mouth and nose well made, their face oval and their features rather long; their skin is brown, sometimes dark olive, and many of them are as black as negroes, without, however, losing any of the other characteristics of their race. They are proud and valiant, and cut off the heads of their vanquished enemies, but seldom add torture, like the Moors and Berebers. They are moderate in their use of food, able to endure much hardship, are good riders, and skilful in the use of arms. Their women occupy themselves with keeping bees and silk-worms, and prepare the stuff for the clothing of their husbands and the covering of their tents. The Arabs are all proverbially hospitable. Their tents are covered either with a coarse cloth or with palm leaves, and arranged in a ring, with the tent of the Sheikh in the centre; and are frequently surrounded with a thorn hedge, as a defence against the lions. These ring-camps are called *duar*.

The *Berebers* and *Shellukhs* appear to be essentially the same people, though a considerable difference is observable between them. They are believed to be the aboriginal natives of northern Africa, and are extended across the whole breadth of the continent from Morocco to Egypt. The Berebers form at present four distinct nations: 1. The *Amazighs* or *Amazirghs* or *Kabyles*; 2. the *Shellukhs*; 3. the *Tuarricks*; and 4. the *Tibboos*. The meaning of the name Bereber is not accurately known; but, in its present shape it is known to be the Arabic plural of Berber; and it appears probable that the Arabs borrowed it from the Greeks, and used it as a synonyme of their own word *ajami* (strangers, *i. e.* not Arabians). The Amazighs or Amazirghs occupy the valleys, and higher parts of the Atlas, from Jebel Tedla, in Morocco, to the Gulf of Sidra, divided, however, into many different tribes, who speak as many cognate dialects. In Algiers they are called generally *Kabayil* (tribes, the plural of *Kabileh*, a tribe), and in Tunis, *Zowawah*. — (*M. Graberg de Hemso, in Journal of Royal As. Soc. G. B. III. 106, &c.*) They are remarkable for their robust figures, handsome features, and fair complexions. There are many families among them with blue eyes, and colour as florid as that of the natives of northern Europe. The Amazighs are chiefly shepherds and hunters; they live in a savage state, in villages planted on hill tops; and not a few of them dwell in caves. In the more productive parts of their valleys, they cultivate the ground, and rear many bees. The Kabyles are described as being about the middle height, with brown complexions, sometimes verging on black, and brown and glossy hair; thin, but extremely strong and robust; with bodies beautifully formed, and an elegance in their attitudes which is only to be found in ancient statues. There is, however, in their countenances, an expression of savageness, and even of cruelty; but they are active and extremely intelligent. They are a remarkably industrious people, and, by working the mines in their native mountains, procure lead, copper, and iron. With the lead they make bullets for war and the chase; and with the copper they manufacture ornaments for their women. It is even said that they work gold and silver. They also make gun-barrels, implements of husbandry, and various rudely formed utensils, which they sell to the Moors and Arabs; with knives, swords, and other sharp instruments, not very elegant in form, but of good quality. They likewise make gunpowder for their own use, but do not sell it. One of their articles of trade is a kind of black soap, made of olive oil and kelp. The tribes on the borders of the plains, and some of the great valleys, breed sheep and cattle in considerable numbers; they have also numerous flocks of goats, which supply them with milk, and of the flesh of which they are very fond. Their beeves are small, but their asses and mules are the best in Barbary. In their political state they are divided into tribes, each of which is governed by a Sheikh, as among the Arabs; and there are families among them which are recognised as patricians. These tribes sometimes confederate under a Sheikh-zabo, for purposes of war or plunder. They are a warlike race, and jealous of their independence; but have a very savage mode of warfare. They give no quarter to the enemy who falls into their hands, and it is fortunate for him if they are satisfied with cutting off his head; for they often mutilate and torture their prisoners in the most cruel manner. Knavery is held in respect among them, and a breach of promise is not considered

dishonourable. The Berebers are nevertheless said to be faithful and hospitable to friends, though cruel to enemies, and hostile to strangers. With respect to their language, all the information which M. Graberg has been able to collect, confirms the opinion that it presents a character highly original, approaching somewhat to the Hebrew; and he consequently believes it to be derived from the Phœnician. It has no affinity whatever with the Arabic, except in a few words, as religious, metaphysical, and technical terms, expressions of new ideas, and such like, which have been adopted from their Arabic neighbours. They are generally Moslems. The *Shellukhs* possess the southern ridges of the Atlas to the south of Fez. They are a people of nearly the same character as the other Berebers, but they live separately; and, although their habitations are sometimes very near, they have no social intercourse; nor is an instance known of individuals of the two nations having intermarried. Their languages, however, have certainly a great affinity. At present neither the Berebers nor the *Shellukhs* know of any other written character than the Arabic. The *Tuaricks* and the *Tibboos* are the possessors of the middle and eastern parts of the Sahara.

The *Jews* are here, as elsewhere, a proscribed race. In Marocco they are confined to certain districts, but reside for the most part in seaport towns and villages, being employed in commerce, or as artizans and interpreters; and it is through their agency that all intercourse with foreigners is carried on. They are very numerous in Marocco, and are chiefly the descendants of those who were driven out of Europe in the fourteenth and fifteenth centuries. They contrive to amass wealth, notwithstanding their state of degradation, and the persecution which they suffer from the fanatical Moors. Those who live among the Berebers enjoy a comparatively happy lot, particularly the ancient families known by the name of *Pilistin*, who are supposed to have been established in the country from remote antiquity. In Algiers they enjoyed great immunities before the invasion of the Turks; but under the Turkish dominion they lost most of their privileges, and were treated with great severity. The trade of broker is the only profession they now exercise there. The upper classes of them transact business with the European merchants; those of the middle and lower classes act as agents to the Arabs and Berebers. At Algiers an Arab would not sell a couple of fowls without the aid of a Jew, who has always a per centage for his trouble. In Tunis they appear to be in a somewhat better condition. They are the best mechanics; occupy the highest situations among the tax-gatherers; generally farm the revenues; and regulate the value of the money. They are also entrusted with the keeping of the jewels and valuables of the Bey; are thus his treasurers, private secretaries, and interpreters; and the little that is known of medicine, science, and art, is for the most part confined to them. They are in possession of many monopolies, and some of them are enormously rich. The total number of Jews in Barbary is estimated at 700,000; of whom about 300,000 reside in Marocco, from 150,000 to 200,000 in Tunis, and the remainder are scattered in Algiers and Tripoli. With the exception of those in Algiers, the Jews of Barbary are governed by their own laws. Those in Tunis have a kaid or governor appointed by the Bey, and who may be considered as their first magistrate in all things temporal; but their spiritual concerns are managed by the chief rabbi, who possesses great power, more than even the kaid himself. The Jews are all a very laborious people; and are in fact the only working class in Barbary.

The *Turks* have been for three centuries the dominant people of Algiers, Tunis, and Tripoli, and do not differ in any respect from their brethren in Asia. Sprung from them is a mixed race called *Koulougis*, consisting of the offspring of Turks by Moorish women. They are generally a well-formed handsome people, possessing most of the vices of the Moors, but displaying much more refinement and cleanliness. With the Moorish features they have whiter skins, and are more comely; they lead a life of ease and indolence, being generally rich, from the inheritance of their fathers — an inheritance accruing mostly from the profits of piracy.

From time immemorial the people of Barbary have possessed Negro slaves, brought from Soudan. Almost all the Moors, with the exception only of the very poorest classes, possess slaves, whose habits and manner of living are precisely the same as those of their masters. They exercise all sorts of callings, and many of them are masons. The negroes may purchase their freedom either with money or by services; and many persons when they die manumit all their slaves. The latter then become Moslems, if they were not so already, and immediately enjoy all the immunities of free citizens. Such is the origin of the negro population now existing in Barbary. They are distinguished from the Moors only by their features and complexion, and

perhaps by a few superstitious practices peculiar to themselves; but they enjoy every political and civil privilege of the latter. They often enlist as soldiers, and are generally very brave. In Morocco they compose the Sultan's body-guard, which forms the best portion of his army.

Besides the classes already mentioned, there are a few Christians, who are chiefly European merchants, and also a small number of renegadoes in the principal towns; but Christian slavery no longer exists.

Barbary is divided into four large independent states: — *Morocco*, *Algiers* or *Algeria*, *Tunis*, and *Tripoli*, which last includes *Barca*.

THE KINGDOM OF MOROCCO or MOGHREB-UL-AKSA occupies the north-west corner of Africa, between 28° and 36° N. lat. and $11^{\circ} 30'$ W. and $2^{\circ} 36'$ E. long., measuring above 700 miles in extreme length, and 360 in breadth. It covers, according to Graberg, a surface of 24,379 square leagues, or about 220,000 square English miles, with a sea-coast on the Mediterranean, extending from Twnit to Cape Spartel, 270 miles, and on the Atlantic 560 miles, from Cape Spartel to Cape Agoulon. Walknaer, however, makes the superficial extent only 130,000 square geographical miles, and Captain Washington 150,000; and, indeed, as the eastern border, towards the desert is ill defined, no certain estimate of its extent can properly be formed. This kingdom, or empire consists, within its actual limits, of the kingdom of Fez (Fes or Fas), to the north of the river Om-erbehg; of that of Morocco, with a part of the late kingdom of Sus, to the south of that river, of the kingdom of Taflett, the country of Sahara, and the district of El Iharits, all to the east and south of the Atlas. Morocco and Fez are subdivided into 30 provinces, some of which are very large, while others consist of no more than a town with the adjoining district.

The people of the empire are distributed by Graberg, according to their races, in the following manner:—

Amazirghs,	{ Berebers and Tuaricks,	2,300,000
	{ Shellukhs,	1,450,000
	{ Moors and mixed Arabs,	3,550,000
	{ Bedwins and pure Arabs,	740,000
	{ Jews,	339,500
Europeans,	{ Negroes,	120,000
	{ Christians,	300
	{ Renegadoes,	200
		8,500,000

Other authorities differ very much from M. Graberg.

Jackson estimates the population at	11,886,000
Hoest (Danish Consul, 1760-68),	6,000,000
Chenier (French Chargé d'Affaires, between 1770 and 1780),	6,090,000
Washington, 1836,	5,500,000
Balbi (Abregé, 3me. edition, 1837),	6,000,000

Their distribution in the different divisions of the empire should be as follows:—

	<i>Sq. leagues.</i>	<i>Inhabitants.</i>
Kingdom of Fez,	9853	3,200,000
Marocco,	5709	3,600,000
Taflett and Sigelmessa,	3184	700,000
Al Draha and Sus,	5633	1,000,000
	24,379	8,500,000

which gives 349 individuals to the square league. The towns are neither numerous nor populous. Morocco contains only 50,000 inhabitants; Mekinez, 56,000; Fez, 88,000. There are three other towns with from 20,000 to 30,000 inhabitants; two from 15,000 to 20,000; five from 10,000 to 15,000; and six from 5,000 to 10,000.

The government is simple despotism, in which the will of the Sultan is predominant. The Sultan is head of both church and state, which are inseparable. The laws are the will of a despot. In the capital the Sultan administers justice in person; and in the provinces the governors (styled *khalifa* or *bashaw*) faithfully copy their imperial master; yet, when these rulers have no personal feeling to gratify, their judgments are generally correct, and always prompt. Their ruling principle of government seems to be to keep the people poor and in a condition in which they are unable to rebel. The revenue is derived from taxes paid in kind, one tenth of corn, and one twentieth of cattle, a capitation tax on all Jews, and fines on districts where crimes have been committed; but it is very uncertain; and often requires to be levied by force from some of the Arab tribes. Its amount is estimated by Captain Washington at £1,000,000. M. Graberg makes it 2,600,000 dollars, while the expenditure amounts only to 990,000, leaving a large surplus to be buried in the imperial treasury. The regular military establishment does not at present exceed 15,000 or 16,000 men, of whom one half are negroes. They are distributed in garrisons and shifting camps, forts, seaports, and in the imperial residences. About one half of the number is cavalry. This force can be easily increased tenfold, when required, by levies of the civic militia, and Bedwin cavalry. The militia receive no pay, but are furnished with a horses, and when those of the provinces visit the capital, they receive a trifling present; they are generally expert horsemen and good marksmen, but are destitute of any sort of discipline. At the accession of Mulai Suleiman to the throne in 1793, the naval armament consisted of 10 frigates, 4 brigs, 14 schooners, and 19 sloops, manned by 6000 intrepid seamen. The naval force at present consists of 3 brigs, mounting altogether about 40 guns, and 13 sloops stationed at the mouths of the principal rivers. When piracy was put an end to by the superior power of the Europeans, armed vessels were found to be of little use, and too costly. The present empire was established in 1547 by a sheriff or descendant of Mahomet, whose posterity still enjoy the sovereignty, after having survived frequent revolutions. The sovereign conjoins the title of sheriff to that of sultan. Some of these princes have been able men; but generally they have exhibited a peculiarly jealous and ferocious character; and Morocco has been ruled by some of the most blood-thirsty tyrants recorded in history. The distinction of sheriff descends to all their male offspring, and consequently preserves them from the obscurity which so soon involves the posterity of other Moslem princes. The sherifs, indeed, of this family may be said to constitute a very powerful clan, being not fewer, perhaps, than 40,000, who chiefly reside in Taflett; nor will their numbers surprise us, when we consider that Mulai Sherif, the founder of the dynasty, had 84 sons and 124 daughters; and that his son Mulai-Ismael possessed a family of 824 sons, and 325 daughters! The succession to the throne is generally disputed by several of the sherifs; and one of them lately (1810) founded an independent state (Bilad-Sidi-Hesham) in the southern part of the empire.

Industry and commerce are very limited. The only important manufacture is that of the leather which bears the name of morocco; one tannery in the capital employs so many as 1500 persons; and, though the processes are slovenly, a fine yellow colour is produced, which Europeans cannot rival. The other articles of exportation are almonds of very fine quality from Sus, dates from Taflelt, ivory and gold dust from Soudan; honey, wax, ostrich feathers, &c. In return, the kingdom receives the usual articles of European and colonial produce; and its trade is carried on chiefly by the port of Mogadore.

Morocco (Marakesh, Morocco), the capital, is situate near the northern limit of a large plain, 1500 feet above the level of the sea, in $31^{\circ} 37' 30''$ N. lat., and $7^{\circ} 36'$ W. long. The city is six miles in circuit, enclosed by a strongly-built machicolated wall of tapia-work, with square towers, and containing eleven double gates; but this area is far from being generally covered with buildings, it comprises large gardens, and open spaces of 20 or 30 acres in extent. The streets are narrow and irregular, having the appearance of lanes, lined with houses, usually of one storey, and flat-roofed. The city contains 19 mosques, 2 madreses or colleges, and 1 hospital. The principal mosque has a lofty square tower of seven storeys, 220 feet high; its height being apparently seven times its diameter, with a small turret or lantern on the top. The palace occupies a separate enclosure on the south side of the city, measuring about 1500 yards by 600, occupied chiefly by gardens, pavilions, and other usual ornaments. The population is about 50,000. The city is placed in the midst of a forest of palms; and the plain in which it stands extends east and west between a low range of schistose hills to the north, and the Atlas to the south, having a breadth of 25 miles, apparently a dead flat to the foot of the mountains, but the limits as far as the eye can reach east and west are undefined. The Wady Tensift runs through it, and is crossed a few miles north of the city by a bridge (*alkantrah*) of 30 arches. The city is supplied with water, which is brought from the Atlas, at the distance of 20 miles, by spacious aqueducts.

Fez (Fes, Fas), the capital of the kingdom of that name, and once the metropolis of Moghreb-ul-Aksa, is situate in $34^{\circ} 6'$ N. lat., and $4^{\circ} 58'$ W. long., on the banks of an affluent of the Sebou, in a hollow valley formed by woody mountains. The houses, built of well made fire-burned bricks, are generally two storeys high, containing a court in the centre, and flat-roofed. The streets are paved but narrow, winding, and dirty. Fez contains a number of mosques, with minarets 100 feet high; but has no other remarkable buildings. It has, likewise, sulphureous and chalybeate baths, which are well frequented; and Ali Bey (Bahdia) who visited Fez about 30 years ago, speaks of its schools, as celebrated over all Africa, and of its library, as being very considerable for such a country. The population is reckoned about 88,000. Woollen coverlets, swords, and fire-arms, morocco leather, gunpowder, and other articles, employ a great portion of its inhabitants, who also carry on a very extensive commerce.

Mekinez (Miknassah, Mequinez) 33 miles W. by S. of Fez, is chiefly important as an imperial residence, and is situate in a well cultivated valley. The palace is a vast square fortified building; and the population of the city is reckoned at 56,000. The other towns of the empire are unimportant. *Tetuin*, 20 miles S. of Ceuta, possesses the only harbour on the Mediterranean coast; and has a considerable trade and population. *Tangier*, a little to the east of Cape Spartel, has a good harbour, and a very active trade, and is an ordinary residence of the European consuls. *El Arish or Larashe*, at the mouth of the river Luecos, is the ordinary station of the imperial fleet. *Sla* (Salce) at the mouth of the Buregreg, the resort of the formidable pirates who scoured the seas in the 17th and early part of the 18th centuries, has very much declined, though it still contains about 10,000 inhabitants. *Rabat or New Salce*, on the opposite side of the river, is still one of the principal towns of the empire, and has a population amounting to 25,000. *Al Kasar*, 82 miles N.W. of Fez, a very decayed city, still contains 8000 inhabitants. *Mogadore*, 130 miles W. of Morocco, in $31^{\circ} 30'$ N. lat., $9^{\circ} 47'$ W. long., with 10,000 inhabitants, which was regularly rebuilt in 1760, fortified and provided with a harbour, which is now choked up with sand, is the first maritime station, and the most commercial town in the empire. *Agadir or Santa Cruz*, 75 miles S. of Mogadore, is a port on the Atlantic, formerly belonging to the Portuguese. *Taradant*, the capital of the province of Sus, has an industrious population of 20,000 or 22,000 souls; and *Tagarost*, in the same province, is said to be larger still. Of the towns in Taflelt and Sigelmessa little or nothing is known.

SIDI-HESHAM'S COUNTRY (Bilad-Sidi-Hesham), a new state, founded in 1810, by Sidi-Hesham, the son of the Sherif Achmed-ebn-Mousay, is composed of a part of the province of Sus, and extends to the east and south of that country. Inhabited by an industrious, agricultural, mercantile, and warlike people, it seems to have become the centre of the trade between Morocco and Timbuctoo; the Moorish merchants preferring to stop here rather than cross the desert. *Talent* is the capital; and at *Ilegh* is the venerated tomb of the Sherif Achmed, the father of Hesham. The southern part of the state includes the large valley and river of *Wady-Nun*.

ALGERIA extends along the Mediterranean Sea, eastward from Morocco, between 2° W. and $8^{\circ} 30'$ E. long., being about 550 miles in extreme length; but, as it has no definite limits southwards, no computation can be made of its breadth or superficial extent. This region corresponds very nearly to the Roman provinces of Numidia and Mauritania Cæsariensis. In the beginning of the sixteenth century the Moors of the country called to their assistance against the Spaniards a famous Turkish corsair, Baba Horush (Barbarossa of the Franks), who made himself master of Algiers; and, at his death in battle in 1518, left it to his brother Khair-ed-din (Hyraddin.) The latter, in order to secure his conquest, put himself under the protection of the Ottoman Sultan, Selim I., who appointed him Pasha and Regent of Algiers, and sent him a body of janissaries. In the course of time the governors became independent princes, with the title of Dey, elected by the Turkish soldiery, whose numbers were always kept up by recruits from Constantinople and the Levant, and who formed a very licentious and turbulent aristocracy. For three centuries the Algerines carried on a piratical warfare against Christendom; but at length in 1830, a French army invaded Algiers, took the city, dethroned the Dey, and latterly expelled all the Turks. The French Government still retain their conquest; but their influence and authority extend very little beyond the districts immediately adjoining to the cities and towns which they have garrisoned. They have upwards of 70,000 troops in the country; since the first invasion in 1830 about 50,000 have been slain, and about 10,000 are constantly in the hospitals. Great numbers also die of fatigue and privation. When they march each soldier carries about a hundred-weight, which, under a burning sun, is an oppressive load; and as they are employed in fighting and skirmishing night and day, sometimes within a few miles of the city, few return home except as invalids. The expense of retaining this conquest is enormous; and must be attended with great sacrifices on the part of the mother country. The French, however, have possession of all the coast from Bona to Oran.

Under the Deys the regency was divided into four provinces: 1. Al Jezirah or Algiers proper; 2. Titterie, to the south; 3. Constantina, to the east; and 4. Mascara, to the west; the last three being governed by beys, while the first was governed directly by the Dey himself. At present Abd-el-Kader rules over a great part of the late beylicks of Oran and Titterie, including Mascara and Tremecen; Achmet possesses the greater part of Constantina; while the country actually possessed by the French forms three military governments. The first, that of *Algiers*, under the command of the governor-in-chief, comprises, besides the city, a circuit of about three leagues and a half without the walls; and it is only within this space that the French rule is positively established, and their colonists in

safety. The second, called the *Government of Oran*, contains a territory of from 15 to 20 leagues inland; but the governor has great influence over the neighbouring country. The third, called the *Government of Bona*, includes that town and Bouglah, with their respective territories: to which we may now add Constantina, and the road between that city and Bona. Besides these recent conquests, France has possessed for four centuries a territory called the *Cessions*, which extends along the coast from Bouglah to the frontier of Tunis, and is composed of two distinct parts: the eastern, which stretches from the frontier of Tunis to the river Seibous, which belongs entirely to France, and on which are erected three forts, called the *Bastion de France*, *Al Kalah* or *La Calle*, and the *Poste du Moulin*; the western, which extends from the Seibous to Bouglah, along the coast of which the Dey had granted to France the right of fishing for coral, in consideration of a certain annual payment, which was latterly, by treaty in 1817, fixed at the amount of 200,000 francs. In 1825 the fishery employed 183 boats, amounting to 1791 tons, and manned by 1986 men, and the produce was valued at 1,812,450 francs. The most of these boats were Italian, but they all paid a duty to France. In 1827 the *Poste du Moulin* and *La Calle* were demolished by the troops of the Dey; and, in return, the Dey himself was, in 1830, deprived of his capital and his kingdom at the same time.

The territory south of the Atlas included in the late regency, consists of two extensive districts: the *Zaab*, or the country of the *Beni Mezzah*, about 300 miles to the south of Algiers; and the *Wan-Reag* or *Erwaghah*, as far to the south of Constantina, both of which stretch to the very edge of the desert. Dates are the chief products of both districts. The *Zaab* is well watered by the river Adjee-dee and its affluents, but the *Wad-reag* is very dry. There are no fountains or rivulets; and, in order to obtain water, the people dig to the depth sometimes of 100 fathoms, through different layers of sand and gravel, till they come to a flaky stone-like slate, which is known to be immediately above the *Bahr taht el erd*, or the sea below ground. This stone is easily broken through, and the flow of water which follows the stroke is so sudden and abundant, that the person let down for the purpose is sometimes drowned, though pulled up with the greatest expedition.

Algiers (*Al Jezirah*, the island), the capital of the regency, and now the capital of the French territories, is situate on the coast of the Mediterranean, in $36^{\circ} 47' 20''$ N. lat., and $3^{\circ} 4' 23''$ E. long. It is built on the side of a hill which rises to the height of 400 feet, the top being occupied by the Kasuba or castle. The streets are very narrow, the widest having been only about 12 feet, till the French formed a new one through the city. The houses are in the usual Moslem fashion, all square, with an open court in the middle, and flat-roofed; and as they rise in rows above each other on the hill side, there is hardly one which has not a view of the sea. All the houses are whitewashed on the outside; and as this is extended to the forts, batteries, and city walls, the whole have the appearance, at a certain distance, of a vast chalk quarry opened on the side of a mountain. Towards the land the city was defended by a wall flanked with towers; but, towards the sea, there was a line of forts and batteries mounting 237 pieces of cannon. The city contains 153 streets, 14 blind alleys, and 5 open places; but, with the exception of one or two streets, it is a confused labyrinth of narrow, gloomy, and crooked lanes. It is, however, well drained by sewers, and well supplied with water, which is brought from the neighbouring heights by four aqueducts, and supplies 64 public wells. Before the French conquest there were 13 great mosques, with minarets, and about 70 small ones. The whole town is a very curious specimen of Arab and Moorish taste in architecture, to which has now been added a mixture of French, about a fourth part of the old town having been pulled down to make room for fine houses, shops, and hotels. The harbour is formed by the island (*al jezirah*) from which the city takes its name, and which is now connected with the mainland by a mole; it is principally upon this island that the formidable batteries were erected. On the land side the only defence was the emperor's fort, which indeed commands the city, but is itself commanded by the upper part of Mount Bonjereeah. The hills which rise above and around the city are studded with country-houses, gardens, vineyards, and olive groves. Algiers has also three colleges for the instruction of the ministers of the Moslem religion, besides a great number of public schools, where children of both sexes are taught to read and write. A medical school has been established, and a public library. The Algerine Monitor newspaper appears once a-week. The circuit of the city is little more than two miles; its population has been greatly exaggerated; some authors have carried the amount to 80,100, and even 200,000. According to the census taken in April 1833, it was found to contain 11,850 Moors, 1874 negroes, 5949 Jews, 2185 French civilians, 1895 foreigners: in all 23,753, besides the garrison. Algiers was first built about A. D. 935, by an Arabian chief, named Yussuf Zer. Fourteen miles west from the city is the bay and tower of *Sidi Ferrej* or *Ferrush*, where the French army landed in 1830. The country all around Algiers is delightful, and the French are introducing great improvements in fortification, road-making, and public buildings.

Constantina (*Kosantinah*, *Kostantinah*), a large and very ancient city, 195 miles E. by S. of Algiers, occupies a remarkable situation, and is at all points, except one, admirably defended by natural position. A ravine 60 yards wide, and of great depth, at the bottom of which runs the Wady Rummel, presents, as a scarp and counterscarp, a perpendicular rock equally unassailable by bombardment or undermining; and which communicates with the adjoining plateau of Mansoura by a very narrow bridge, defended by a double gateway of great strength. The greater part of the houses are built from two to five feet above the ground on large square cut blocks of dark grey calcareous stones, the remains of ancient buildings; and are covered with sloping tiled roofs, which give the city the appearance of a Spanish rather than of a Moslem town. None of the mosques, public buildings, or houses are remarkable for any beauty or architectural elegance. The Bey's new palace, built a few years ago, is large, and in the interior very handsome. The city measures nearly 2700 yards in circuit; and is surrounded by walls, built of Roman-wrought stones. The population may be estimated at from 25,000 to 30,000, a considerable portion of which appears to have been, before the French conquest, very wealthy, and to have indulged in habits of luxury. The principal manufactures are those of saddles, bridles, boots, slippers, and gaiters. A considerable trade was formerly carried on with the south, from which, in return for corn, saddlery, and European goods, the Constantinians received gold-dust, ostrich feathers, slaves, and the finer sorts of haiks, both of wool and silk. The city received its present name from Constantine the Great, who caused it to be rebuilt; its more ancient name was *Cirta*, and it is celebrated as the capital of the ancient Numidia. In order to secure a communication to Constantina with the sea, at the nearest point of the coast, a new city, named *Philippeville* has been founded on the Bay of Storah, and is rapidly becoming a place of importance.

Bona (called by the Arabs *Annabab* — the place of jnebs), is situate on the coast, 93 miles N.E. by E. of Constantina in $36^{\circ} 53' 56''$ N. lat. and $5^{\circ} 24' 38''$ E. long. The town was destroyed in 1832, but is now rebuilt. Many good houses have been erected, and good shops, reading-rooms, coffee-houses, restaurants, and even a theatre established. Several of the streets have been widened, and carried in straight lines. About a mile S. by W. are the ruins of the ancient *Hippo*, the bishopric of St. Augustine. *Bouglah* (*Boujayah*, *Boujenah*, *Bugia*), a miserable place with a few steep and winding streets, on the slope of a hill, rising from the sea, with a spacious but insecure harbour, 120 miles E. of Algiers. *Wahran* or *Oran*, a fortress, 240 miles S. W. by W. of Algiers, stands on the slopes of two hills separated by a green wooded valley watered by a rapid stream which flows into the sea. It was built by the Spaniards, and is surrounded with strong walls and ditches. The east side is defended by the citadel, two forts, and a lunette; and the valley is commanded on the north side by five strong towers, besides fort St. Philip. Merchant vessels can anchor with safety only before the

town, and this merely in calm weather, or when the wind blows from the south. The inner harbour, which was of considerable size, and intended for sheltering small craft, fell in, in November 1835. *Arzaw* (*Arzeou*, *Arzew*), the *Portus Magnus* of the Latins, a small town of 500 inhabitants, 24 miles E.N.E. of Oran, has productive salines, and is the best harbour in the regency. *Belidah* (*Blida*), 30 miles S.W. by S. of Algiers, was lately a flourishing town of 15,000 inhabitants, but was entirely destroyed by an earthquake in 1825; and, though afterwards rebuilt, has been reduced by the effects of war to a population of 4000. *Medeya* (*Mehdyah*, *Medea*), 13 miles S. of Belida, a pretty town of 6000 inhabitants, and situate in a delightful and fertile country, is the residence of the Bey of Titterie. *Mascara*, the residence of Abd-el-Kader, and containing about 10,000 inhabitants, was taken by the French in 1835, and reduced to a heap of ruins; 50 miles E. by S. of Oran. *Tremecen* (*Tlemecen*, *Tlemsihan*, *Tremezen*), the most considerable city of the province of Oran, has a population of above 10,000. *Tuggurt* (*Tequort*), the capital of Wad-reag, 325 miles S. S. E. of Algiers, is a large town of 4000 houses, surrounded with walls and gates, and a wide ditch crossed by three bridges. The people are wealthy; the country produces dates, figs, raisins, pomegranates, apples, apricots, peaches, and other fruits. There is a salt-bed at Tuggurt; and indeed the whole country abounds with this mineral: there are no stones to be met with, but springs of water are numerous. The people are black; but one quarter of the town is possessed by a white race called Muhedjerin, who were once Jews, but to escape death, made profession of Islam, and are now devoted readers of the Koran. They possess great wealth; their women appear in the market-places veiled, and converse in Hebrew among themselves when they wish not to be understood.* *Ghardaiah* or *Ghardeyah*, the chief town of the Beni Mezzah, 360 miles S. by W. of Algiers, contains 2400 houses, including mosques, with a large market-place, and two minarets. It is surrounded by a wall with two gates; and the water is entirely procured from wells. The Beni Mezzah are a powerful people, and speak the Berber language. They are of very white complexion; when they ride they use camels; and their food consists chiefly of flesh and milk; the country yields no grain, though the Wady produces dates. They are Moslem dissenters, are very temperate, and neither smoke tobacco, nor drink wine. They make, however, incursions into Soudan, and carry off slaves, and other property. *Eghwatt* or *Aghwath*, a large town of about 5000 inhabitants, 260 miles S. by W. of Algiers, is surrounded by a wall with fortifications. It has four gates, and four mosques, but no minarets, and the houses are built chiefly of clay or mud; the town is divided into two parts by the river *Emzee*. The region is very mountainous. To the northward is a very high mountain called *Jebel-Amour*, which contains 100 springs of water, and furnishes every kind of timber.

TUNIS extends along the coast of the Mediterranean, and is about 450 miles in length, from N. to S., by 150 in breadth, containing an area of 52,000 English square miles. It is bounded on the north and east by the Mediterranean Sea, on the west by Algiers, on the south by the undefined limits of Bilad-ul-jerid and Sahara, and on the south-east by Tripoli. This territory was formerly a province of the Ottoman empire; but came at last into the possession of a hereditary Bey, who is now the actual sovereign, and exercises despotic power. His military force was recently organized on the European system by a British officer, and he has long maintained peaceful relations with the European powers. The Mamelukes or body-guards form here a separate class, which is not numerous, but is on that account the more powerful; they form the nobility or aristocracy of the court, and being all assembled round the person of the sovereign, and in his special service, they are considered as enjoying his peculiar favour. *Tunis*, the capital, is a large but irregularly-built city, with narrow and filthy streets, situate on the west side of a shallow gulf, which communicates with the Mediterranean Sea by a narrow entrance, named the *Goleta*. It has high ground to the south, but an extensive marsh on the west, and yet is not unhealthy. The citadel, called *El Gaspa*, is on the west side of the city, but is completely commanded by the neighbouring heights. The Bey's fortified palace, named *El Bardo*, is about two miles N.W. of the city. The *Goleta* is well fortified, having its entrance defended by a castle of the same name; and, besides, the depth of the bay or lagoon inside being nowhere more than a fathom, ships cannot approach the city. *Tunis* carries on a more extensive trade than any other city of Barbary; its population exceeds 100,000, of whom 40,000 are Jews, and of these about 600 are tailors, and 1000 goldsmiths. On the sea-coast, north of the *Goleta*, and 13 miles N.E. of *Tunis*, is the site of the ancient city of *Carthage*, of which nothing is left but heaps of stones and remains of walls, with some cisterns and subterranean vaults. *Kerwan* or *Kairwan*, 80 miles S. by E. of *Tunis*, a large town, with 60,000 inhabitants, holds the fourth place in point of holiness in the Moslem world; an honour which it owes to the circumstance of its containing the tomb of the friend and barber of the prophet, which is placed within a large mosque, said to be supported by 500 granite pillars. The mosque is surmounted by beautiful cupolas and towers; but being surrounded by a high wall, it has more the appearance of a citadel than of a church. *Kairwan* was long the metropolis of the Arabian empire in Africa, and the seat of science; but at present it is famous only for its sanctity, and its shoemakers, whose morocco boots are considered as the best in Barbary. Nothing can be more naked and lifeless than the environs of the town, as far as the eye can reach. South-east of *Kairwan*, 30 miles, are the remains of a magnificent amphitheatre, still very entire, at a place called *El Jem*, the ancient *Tyadrus*; and 85 miles S.W. by W., at *Sfeth* or *Shethah*, are the fine ruins of the ancient *Sufetula*. *Sfax* or *Sfax*, on the south-east coast, is a considerable town, with a flourishing trade, and surrounded by 50,000 gardens, of which 14,000 are attached to the houses. To the eastward are the *Kerkina* or *Karkena* islands (anc. *Cercina*), *Gerba*, *Ramlah*, and *Kousha*. The group extends about 39 miles in length N.E. and S.W.; they are all very low, and covered with date trees, but otherwise not remarkably fertile. *Khaz*, *Gabs*, or *Cabes*, on the south-west shore of the Little Syrtis, at the mouth of a rivulet, the famous *Tritonis* of the ancients, but now chiefly valued from its watering extensive plantations of henna, which afford a valuable article of export. *Khaz* is a large town, with 20,000 or 30,000 inhabitants; but its harbour is now accessible only for small vessels. *Bizerta* or *Bonzart*, a large town, about a mile in circumference, with about 8000 inhabitants, on the sea-coast, 40 miles N.W. of *Tunis*, represents the ancient *Hippo Zarytus*. To the south are two large lakes, joined by a strait, and connected with the sea by a broad channel flowing through the town. The harbour is small, and the most dangerous on the coast; three or four miles off the shore are the *Fratelli* or *Brothers*, two immense rocks, which rise 300 feet from the sea. The other principal places are: *Porto Farina*, at the mouth of the river *Mejerdah*, 27 miles N. of *Tunis*; *Hammanet*, on a wide gulf to which it gives its name, on the east coast, south of *Tunis*; *Sousa*, and *Mistir* or *Monaster*, on the coast of the gulf of *Hammanet*; *Ghafsa*, *Najta*, and *Tazer*, on the south-west frontier, west of the Little Syrtis; *Mahadiah* on the coast, east of *Kairwan*.

TRIPOLI is a narrow territory which extends along the coast, from the frontier of *Tunis* to the frontier of Egypt. The habitable part consists chiefly of portions of the coast, which for a few miles inland are generally fertile and well cultivated; but in some places the desert approaches close to the sea; and the interior is little better than a barren and sandy waste, occasionally traversed by rocky ranges of hills. It was for upwards of a century governed by a series of hereditary bashaws, of the

* Notes of a Journey into the Interior of North Africa, by Hadji Ebn-ed-din El Eghwati, translated by W. B. Hodson, Esq. London, 1839.

Moorish family of Karamanli, who acknowledged the sovereignty of the Ottoman Sultan, and paid him tribute, but were in other respects the independent sovereigns of the country. In 1835 Tripoli was recovered for the Sultan by his Capudan Pasha, and is now again one of the provinces of the empire. Tripoli, the capital, stands on a low neck of land, on the shore of the Mediterranean, in 32° 53' N. lat. and 13° 13' E. long. It is surrounded by an extensive wall, but a large portion of the inclosed space is unoccupied. The caravansaries, mosques, bazaars, houses of foreign consuls, and of the better classes of citizens, are generally built of stone, and regularly whitewashed twice a-year; they are usually two storeys high, but not equal to those of the same class in Tunis and Algiers. The population does not exceed 25,000. Tripoli carries on a considerable trade with the interior of Africa, to which it may be considered one of the principal shipping ports; and its bashaw used to exercise considerable influence over Fezzan and the tribes of the adjacent deserts. Close to the city are a fine Roman triumphal arch and other antiquities. Along the coast E. and W. of the city, between the two Syrtes, are the inconsiderable towns of *Zoarah* or *Ezwarah*, *Lebidah* (ancient *Leptis Magna*), and *Mesurata* or *Misratah*. To the eastward of the Great Syrtis is the dependent province or beylik of *Barca*, the principal places of which, likewise on the coast, are: *Bengazi* (ancient *Berenice*), with 5000 inhabitants, in the midst of a small fertile district, watered by a rivulet; *Teukera* and *Dalmata* (ancient *Ptolemais*), once flourishing towns, but now reduced to insignificance; and *Dernah* or *Belad al Sour*, the residence of the Bey, a town with 4000 inhabitants, on the north-east coast. But the most interesting place in the district is *Grennah* or *Kuren* (ancient Greek *Kurenē*, Latin *Cyrene*), the ruins of which are finely situate on a high table plain, which descends abruptly to the sea by successive stages. The most remarkable of the remains is the necropolis or burying ground, consisting of tombs arranged in terraces along the mountain, and extending a mile and a half along the roads which lead to the city, so as to present the appearance of splendid streets. *Kurenē* was founded by the ancient Greeks, and was for a long time one of their most flourishing colonies, but is now completely deserted. In the southern part of Barca is the district of *Angela*, with a town of the same name, which derives some importance from its being one of the stages on the great caravan road between Egypt and Fezzan.

ES SAHARA, or THE DESERT.

The Sahara extends, as already mentioned, across the breadth of Northern Africa, from the valley of the Nile westward to the Atlantic Ocean, and from Bilad-ul-Jerid southward to the borders of Soudan. This wide region is covered more or less extensively with a quartz and calcareous sand, though in some places the surface is composed of naked clay or bare rocks; fertile tracts also occur, but they are few and far between, and also lakes, strongly impregnated with soda, forming the natron and salt lakes mentioned by travellers. In the eastern parts of the desert the rocks are chiefly of the secondary formation, as limestone, sandstone, gypsum, and rock salt, occasionally traversed by trap rocks; along the western sea-coast they are said to be principally composed of igneous rocks, and chiefly basalt. The greater portion, indeed, of this vast space is one mass of bare rocky hills, and scorching sands, without water, bird, or tree, or even the appearance of vegetation. Here and there, however, there are to be found scattered over it fertile spots called wadys, wahs, or oases, which contain wells of good water, and a considerable portion of tropical vegetation. These are most numerous about the middle of the desert, extending southward from Tripoli to Bornou, and consequently that part of it is the most frequented by travellers. To the westward the desert becomes more cheerless and forbidding, the watering places are at a greater distance from each other, and the vegetation which they contain is more scanty. The wells frequently become dry, which occasions scenes of horror and misery that exceed all description; men and camels, disappointed of water, die in hundreds and thousands. This western portion is also more sandy than the middle, and is consequently not only more subject to the fearful simoom, but also to furious tempests of wind which roll the sands before them like the waves of the sea. To such a degree, indeed, are the sands heated by the unclouded glare of the sun, and to so great a degree of fineness are they reduced by constantly shifting about, that the atmosphere becomes filled with the particles; and to a great distance westward in the Atlantic Ocean ships often find their sails choked with them. This portion of the desert may be pronounced to be almost destitute of inhabitants; except where the scanty vegetation, in certain spots, affords pasturage for the flocks of a few miserable Arabs, who roam from one well to another. In other places, where the supply of water and pasturage is more abundant, small parties of Moors have taken up their residence, and live in independent poverty, secure from the tyrannical governments of Barbary. But the greater portion of the desert, being entirely destitute of water, is seldom visited by any human being, unless where the trading caravans thread their weary route across it. In some places, however, the ground is covered with low stunted shrubs, which serve as landmarks for the caravans, and furnish a scanty forage to the camels. Elsewhere, the unfortunate wanderer, wherever he turns, sees nothing but a boundless expanse of sand and sky, a gloomy and barren road, where the eye finds nothing to rest upon, and the mind is filled with painful apprehensions. In the midst of this solitude the traveller sees the carcases of birds which the violence of the wind has brought from happier regions; and, as he ruminates on the fearful length of his remaining journey, listens with horror to the voice of the driving blast, the only sound which breaks upon the awful silence of the desert.—(Caillie.)

The wild animals that inhabit these dreary regions are the antelope and the ostrich, whose swiftness of foot enables them to reach the distant watering-places. On the skirts of the desert, where water is more plentiful, are found lions, panthers, elephants, and wild boars; but the only tamed animal that can bear the fatigue of crossing the desert is the camel. The desert is traversed in various directions by numerous routes, varying in length from 30 to 90 days, which terminate at the principal cities and towns of Soudan and Barbary, but deviate from the straight course in several instances, according as trading towns or wadys lie nearly in the way.

The Sahara is inhabited by numerous tribes of various lineage, which are scattered in its wadys and fertile spots. Moors occupy the coast of the Atlantic between Morocco and Senegal, and extend eastward to the limits of the Turicks. They are subdivided into a great number of tribes, most of whom are distinguished for ferocity and love of plunder. They consist partly of pure Arabs, whose ancestors migrated from Arabia in the first centuries of the Hejrah, and partly of a mixed race, descended of both Arabs and Berbers. The pure Arabs may be classed in two principal groups; the one of Ishmaelitic origin, and bearing the name of *Hebal*, *Hilel*, or *Hileil*; the other of Kahtanian origin, and bearing the name of *Maghylah*, *Mahchil*, or *Maguilla*. Of the Hebal the best known tribes are the *Beni-amer* and *Moslemyn*, who live near Cape Bojador, and the *El Hharits*, in the neighbourhood of Darah. To the latter may be annexed the tribes of *Tiknah*, *Modjat*, *Moghafera*, and *Tajacant*, with some others. Among the Maghylah the most distinguished tribes are those of the *S-bayn* or *Walah-Abi-Seba*, and *Delemyn* or *Walah-Deleym*, who all dwell near Cape Blanco, and are notorious for their cruelty. Of the same lineage are the tribe of *El Wadayah* who possess the oases of *Wadan* and *Walatah*; the tribe of *Borboush* or *Berabysh*, who possess *Tisheet*; the tribes of *El-Arousyah*, *Arkybat*, and several others.

To the class of mixed Moors belong the numerous tribes who are confounded under the common name of *SSANAGAN*, but are distinguished by the particular names of *Terarzah*, *Beraknah*, *Douish*,

&c. In the Terarzah are comprised the *Walad-el-Haji-Darmako*, who border on the Senegal; the *Adjounah*, robbers who infest the adjoining coast; the *Walad Mobarek*, who dwell in the interior, and a number of other tribes. In the Beraknah groupe are the *Walad-Amar*, the *Ludamar* of Park, the *Gegebah*, the *Takant*, and many others. In the groupe of Douish are comprised the *Walad-Ghayri*, better known by the name of *Walad-Abou-Seff*; the *Kountah*, and, perhaps, also the *Zuat*, who occupy the country towards Arawan. To the same mixed class belong the *LAMTHAH*, comprising the tribes of *Walad-Nun*, who inhabit *Wady-Nun*, to the south of Morocco; the *Masoufah*, who formerly worked the salt mines of *Tahasay* or *Tegazze*, which are now abandoned; and, perhaps, the *Wirkaban*, who possess the desert adjoining Bilad-ul-Jerid, and who appear to be now the possessors of *Tuat*, from which they derive that name.

The *Tuaricks* are a numerous and warlike people who inhabit the middle portion of the Sahara, between Tripoli, Timbuctoo, and Bornou; and have from the days of the Carthaginians and the Romans furnished the conductors of the caravans, and even the merchants who carry on the regular and active commerce which has always existed in this part of Africa. They are a fine race of people, tall, erect, and handsome, with an imposing air of self-respect and independence. Their skin is not dark, except where browned by the sun. They hold in contempt all who live in houses and cultivate the ground, and derive their own employment and subsistence from the pasturage of their flocks, trade, and plunder. They keep all the borders of Soudan in constant alarm, and carry off these great numbers of slaves, whom they sell in Barbary. Yet, at home, they have been found frank, honest, and hospitable, paying an unusual respect to their women, and in their social life much resembling Europeans. They have even written characters, which they have cut on the dark rocks that chequer their territory. The principal tribes are: The *Hhagaya*, who occupy the country between *Tuat* and Arawan, and likewise possess *Ahyr* or *Hayr*, and have *Wadden* for their capital; they are notorious for perfidy and cruelty: the *Saukra*, who extend from *Mabrouk* to *Jinnie*, and subject all their negro neighbours to insolent exactions; and the *Paghama* and *Kollouri* to the north of *Hauoussa*, the latter of whom possess the oases of *Asben* and *Ghat*, with the whole desert as far as *Fezzan*. Of all the tribes those of *Hhagaya* and *Matkara* are the least black, having only a brownish or tawny tint; the others have complexions of darker shade in proportion to their vicinity to the negro races, with whose blood they have mixed.

The *Tibboos* or *Tibboz*, who are found in the eastern part of the desert, are nearly as black as negroes, but have a different physiognomy; their hair is longer, and less curled; their stature low; their features small; and their eye quick. They live on the milk of their camels, and the scanty produce of a few fertile spots; to which they add the profits of a little trade, and not unfrequently the plunder of caravans. They are themselves, however, exposed to a mightier race of spoilers, the *Tuaricks*, who, once a year at least, make a foray into their territory, and carry off every thing, without resistance from the cowardly *Tibboos*, whose only safety is to ascend certain perpendicular rocks with flat tops, beside which they take care to build their towns. They are nevertheless gay and thoughtless, delighting, like other Africans, in the song and the dance. The principal tribes are: The *Tibboos of Bilma*, between *Fezzan* and *Aghaden*, whose capital is *Bilma*, a mean town, built of earth, but having in its vicinity two salt lakes, from which immense quantities of salt are gathered, and taken to Soudan. To the south of *Bilma* is a desert of 13 days' journey in extent, perhaps the most dreary tract on the globe; it contains not a drop of water, nor a vestige of animal or vegetable life. The *Tibboos of Gonda* possess *Aghaden*, and have thousands of camels; they are notorious plunderers of the caravans; but of late have become more commercial and industrious, an improvement which they owe to their intercourse with the merchants of Tripoli. They seem to be the most numerous of all the tribes. The *Tibboos of Traita*, to the south of the *Gonda*; those of *Borgon* or *Birgon*, whose chief place seems to be *Yen*. The *Tibboos of Keshadeh* or of the *Rocks*, so named from several of their tribes living in caverns in the mountains of *Tibesti*. *Abo* appears to be their chief town. The *Tibboos of Arna*, so called from their chief town of the same name. But the *Tibboos* have not the exclusive possession of the Eastern Sahara: to the north *Barea* is possessed by Arabs, the best known of whom are the *Iharabyn* and *Oulad Ali*; and the series of oases which it contains along the borders of Egypt are inhabited by Berber races. To the south wander the Arab tribes of *Beni-el-hassan* *Dughanah*, *El Assala*, and *Salamut*; to the east the mixed Arab-Berber tribes of *Luwatah* and *Berdauah*. The middle region only belongs to the *Tibboos*.

The Sahara, as already mentioned, contains a number of fertile spots or *wahs* (anc. *oasis*). Of these we have already described those that border on Egypt, and acknowledge the supremacy of the *Pasha* — (see EGYPT). Of the others, the principal and most important are those of *Fezzan*, *Ghadamis*, *Asben*, and *Tuat*.

Fezzan lies immediately to the south of Tripoli, and is a very large oasis, being about 300 miles in length, by 200 in breadth, but scarcely distinguished from the desert, as it does not contain a running stream of the least importance. Water, however, is abundant under ground, and by raising it in wells the inhabitants have formed a number of fertile spots in which dates and grain can be reared, and where a few asses and goats, with numerous camels, are fed. The people are chiefly dependant on the trade that passes through *Fezzan*, which being situate midway between Egypt and Morocco, and between Tripoli and Bornou, is the point where numerous caravans cross and meet. There are also merchants in the place itself, who carry on very extensive concerns; and, from these resources, *Fezzan* is able to maintain a population of about 70,000. It is governed by a sultan, who is tributary to the *Pasha* of Tripoli; his capital is *Mourzouk*, a considerable town in a low and unhealthy, but well watered situation, which is the chief seat of the trade. *Germa*, the ancient Roman capital, is now much decayed, but still contains some monuments of its former consequence. *Zuila*, *Temissa*, and *Gatrone* are small towns on the western frontier. *Traghan*, in the south, bordering on the desert, is an industrious place, with a thriving manufactory of carpets. *Sockna*, in the desert to the north, on the road to Tripoli, forms a great caravan station.

Ghadamis or *Gadamis*, an oasis to the north-west of *Fezzan*, derives some importance from the passage of the caravans from Tripoli and Tunis to Timbuctoo, though these are not so considerable as those which pass through *Fezzan*. The chief town, which is of the same name, 240 miles S.W. of Tripoli, is divided between two hostile tribes, each enclosed by a separate wall. *Ghadamis* and the surrounding villages exhibit many traces of having been occupied by the Romans.

The principal oases belonging to the *Tuaricks* are: *Ghat*, whose inhabitants form a sort of oligarchical republic; in its chief town, of the same name, is held a great annual fair, which is much frequented by the tribes of the desert; *Ahir*, a large and fertile oasis, but little known; *Mabrouk*, small and unimportant; *Asben* is one of the largest, and its capital, *Aghades*, is said to be as large as Tripoli; it is at least one of the principal commercial marts of the Sahara.

In the western desert are the oases of *Tuat*; *Hoden* or *Wadan*; *Tisheet*; *Taudeny*; *Taghaza*; *Arawan* or *Aroan*; and the two *Walata* or *Gwabata* and *Walel*. *Tuat*, 550 miles W.S.W. of Tripoli, is very extensive; it is inhabited by mixed Arab-Berber tribes; its chief town is *Ighaly*. It also contains the town of *Ain-el-Selah*, visited by Major Laing, which derives its name from certain holy wells (*Ain*). *Hoden*, *Tisheet*, and *Taudeny*, are celebrated for their mines of rock salt. *Arawan* contains a town with 3000 inhabitants. *Gwabata* and *Walel* are often confounded, though quite distinct; the one being situate on the route between Senegal and Morocco, and belonging to the *Wodany*; the other on the road to Timbuctoo, and possessed by the *Berabysli*. The only place of note on the

coast is the bay and bank of *Arguin* to the south of Cape Blanco, containing an island which produces rock salt. It is supposed, with great probability, to be the island of *Uhl* mentioned by Edrisi, the Nubian geographer, as being situate a day's sail from the mouth of the Nile of the negroes (*i. e.* the Senegal).—*Cookley's Negroland of the Arabs; Lond.* 1841, p. 48.

SOUDAN or NEGROLAND.

THE NEGROLAND OF THE ARABS extends from the Atlantic Ocean on the west, to the region of the Nile on the east, or from the 17° W. to the 50° E. longitude; and from the borders of the Sahara, on the north, to the Gulf of Guinea and the Mountains of the Moon on the south, or from the 4° to the 17° N. lat.; being about 3000 miles in length from east to west, and 920 from north to south. It seems to be divided naturally into three distinct portions, namely: 1. The maritime regions of *Guinea* and *Senegambia*; 2. The basin of the river *Kawara*, which we may call *Central Soudan*; and 3. The basin of the great lakes *Tchad* and *Fittre*, eastward to the borders of *Nubia* and *Kordofan*, to which we may give the name *Eastern Soudan*. The grand characteristics of the region are one great range of mountains, one great river, and one great lake, so that the physical geography of the country, as far as known, is very simple.

The *Mountains of Kong* extend almost due east and west between the 9° and 10° N. lat. from *Mount Loma*, $9^{\circ} 40'$ W., till they cross the bed of the *Kawara*, in 7° E., approaching, however, in their eastern progress, within 80 miles of the Bight of Benin. From *Mount Loma* several branches diverge to the north-east, north-west, west, and north, forming the watersheds of numerous rivers; but of their elevation and physical character nothing is known. At the north-east angle of the Bight of Biafra the *Mountain of Cameroons* rises to the great elevation of 13,000 feet, close to the shore, and seems to form the commencement of a range of volcanic hills, which extend to the north-east, till it joins the *Mountains of Mandara*, visited by Denham, and are probably a portion of the great *Jebel-el-Kumri*, which are said to extend across the middle of Africa, and supposed to be continuous with the *Mountains of Kong*; but nothing is known of them except the name.

RIVERS AND LAKES.—The great river of Soudan is the *Kawara*, *Quorra*, or *Niger*, named in the upper part of its course *Joliba*. So far as yet known, its principal source seems to be situate at the base of *Mount Loma*, 250 miles E. by N. of Cape Sierra Leone. It flows first in a north-easterly direction for about 600 miles, then almost due north for 180 miles, forming in its progress the large lake *Debo* or *Dibbie*; it then turns again to the north-east, but, from *Timbuctoo* to *Yaouri*, a distance of 600 miles, its course has not yet been explored. From *Yaouri*, 570 miles from the sea, it flows with a large navigable stream, south, south-east, and lastly south-west into the Bights of Benin and Biafra by 22 mouths, of which the principal are the *Formoso* or *River of Benin*, the *Waree*, the *Nuni*, the *Bonny*, and the *Old Calabar*.

Within a very short distance of its source it is already navigable, and at *Sego* it is, as *Park* describes it, "as broad as the *Thames* at *Westminster*," that is, about a quarter of a mile. Its principal known affluents are, the *Cubbie* or *Cobbie* or *Quarrama*, which passes *Saccatoo*; the *Coudounia* or *Kudunia*, a large river from *Nyffé*; the *Tchadda*, which passes *Funda*, and joins it in 8° N. lat., a very large river, reputed by the natives to be identical with the *Shary*, one of the feeders of Lake *Tchad*; but which more probably has its sources only on the opposite side of the same mountains. The course and termination of this great river long formed one of the most interesting geographical problems. *Herodotus* relates in his history (*Enterpe*, 32) a few particulars of a journey into the interior of *Libya* by five young *Nasamones*, who arrived at the banks of a large river flowing from west to east, and containing crocodiles. Beyond this scanty information the ancient Greek and Roman geographers seem to have known nothing; and even the tables of *Ptolemy*, who describes two "very large rivers" in the interior by the names of *Geir* and *Nigeir*, still remain an inexplicable puzzle to his successors. The detailed descriptions of these regions given by the Arab geographers and historians of the middle ages are still more perplexing. On their authority chiefly, aided by the vague reports of the natives, the *Niger* or *Nile* of the negroes was considered by some geographers during the 16th and 17th centuries, as having its course from east to west, and as being the parent stream of the *Gambia* and the *Senegal*. Others made these two rivers and the *Niger* flow from a common source, the Lake *Maberia*, in opposite directions; the *Niger* being made to flow eastward across Africa, to join the *Egyptian Nile*. In fact nothing certain was known respecting it; and to dispel the mystery in which it was involved was the principal object of *Park's* two journeys. In his first journey he reached it at *Sego*, and found it "flowing slowly to the eastward." The next object was to discover its termination. *Park* perished in the attempt; and geographers continued to puzzle themselves to no purpose, till its issue in the sea was proved by the *Landers* in 1830. * Between *Yaouri* and *Boussa* the river is divided into numerous channels by rocks, sand-banks, and low islands covered with tall rank grass, some of which the *Landers* found to be so shallow, that their canoe was constantly grounding; but they were told, at *Yaouri*, that above that place, and below *Boussa*, the navigation was not interrupted by rocks or sand-banks; and that, after the wet season, canoes of all kinds pass to and from *Yaouri*, *Nouffé*, *Boussa*, and *Fundah*. At *Boussa* black rocks rise abruptly from the middle of the stream, its waters are tossed in whirlpools, and in the dry season its largest branch is not more than a stonecast across. Sailing downward from *Boussa* the river was found to be completely navigable to a finely wooded island called *Patashie*, below which for 20 miles the channel was so full of rocks and sand-banks as to render the passage very difficult. After this interruption, through its farther course to the ocean, the *Kawara* is a broad noble stream, varying in width from one mile to six, but being commonly between two and three, thus forming for several hundred miles an expanse more resembling a lake or an inland sea, than a river. Its numerous branches form a vast delta, which extends 300 miles along the coast, and contains 25,000 square miles, of a dreary swampy country, covered with thick forests of mangroves, and other trees with spreading and luxuriant foliage, principally palms. The length of its course is estimated at 2000 miles. On the whole it appears from the unhealthiness of its climate, and difficult navigation, that the *Niger*, of which so much has been expected, is likely to remain comparatively of little importance to the world as a medium of commerce.

* In justice to a gentleman of distinguished zeal in the cause of African geography, we deem it necessary to mention that "in the latter end of June" 1829, two separate memorials concerning the geography and trade of Africa, were laid before several of the most distinguished members of the British Government by *Mr. James Macqueen* of Glasgow; and in the spring of the following year, that gentleman published "a Geographical and Commercial view of Northern Central Africa, containing a particular account of the course and termination of the great river *Niger*, in the Atlantic Ocean," proving incontestibly, in our judgment, the important fact afterwards ascertained by the *Landers*. His views however, being quite repugnant to the theories of certain influential persons, no attention seems to have been paid to his book or memorials, and they are now almost forgotten. We have never observed them even alluded to. We read his book in 1821, and never afterwards doubted the fact therein established. In 1841, however, after this note was written, *Mr. Macqueen* published a second edition of his book.

with Africa. The best entrance yet known to the main body of the river, is by the branch commonly called the Nun, but even that branch is not navigable during at least six months of the year; while, during the remaining six months, steam-vessels only, and those of a very light draught of water, can accomplish the navigation. At Lever near Boussa, the bed of the river becomes so contracted and obstructed with rocks that the progress upward is stopped.

The *Senegal* or *Zanaga* rises near Timbo or Teembo, 216 miles N.E. of Sierra Leone, where it bears the name of *Ba-fing* (black river). It flows first northerly, and then westerly, into the Atlantic Ocean, 100 miles N. of Cape Verde. It receives a great number of affluents in the upper part of its course, but very few in the lower part. The principal of these are: the united stream of the *Kokoro* and *Ba-Wolima*, from Manding; the *Faleme*, from Bambouk and Sadadoo; the *Nerico*, which flows from a small lake named *Tiali*, and which, in the wet season, communicates with the sources of another river *Nerico*, an affluent of the *Gambia*; and the *Sakham*, from lake *Kayor*, near the west coast. In the lower part of its course the *Senegal* forms a number of large islands, but ultimately reaches the sea in a single stream. It is navigable for several hundred miles, and the length of its course is about 950 miles.

The *Gambia*, under the name of *Diman*, has its source in the plateau of Fouta-Toro, and has a north-westerly course of 700 miles into the Atlantic Ocean, which it reaches 100 miles S.S.E. of Cape Verde. The navigation is uninterrupted from the sea to the falls or rapids of Baraconda, a distance of about 400 miles, above which sand-banks and flats render it difficult; while the crowds of crocodiles and river horses in the water, and of other wild beasts on the banks, render it alarming, and even dangerous. Along the coast to the south of the *Gambia*, are several large rivers, the courses of which are not yet well known, and some of which are said to communicate with each other and with the *Gambia* by their branches: these are the *Casamansa*, the *Cachee*, the *Jeba*, and the *Grande*.

Proceeding along the coast are a great many other rivers, which it is sufficient merely to name in their order from west to east:—*Campounee*, *Nunez*, *Ponga*, *Dembia*, *Debr-ka* or *Sangaria*, *Mahniah*, *Morebiah*, *Tannah*, *Mellacorie*, *Great Searcies*, *Little Searcies*, *Iokelle* or river of Sierra Leone, *Kates*, *Karamanka*, *Cockboro*, *Yallucka*, *Bagroo*, *Jong*, *Eoom-Kittim*, *Gallinas*, *Solyman*, *Manna*, *Pissou*, *Cape Mount*, *Half-Cape Mount*, *Po*, *St. Paul*, *Junk*, *St. John's*, *Grand Cestos*, *Rock Sesters*, *Sanguin*, *Sinou*, *Droo*, *Half-Carully*, *St. Andrew*, *Tubclah*, *Frisco*, *Lahou*, *Sucira da Costa*, *Assine*, *Seenee*, *Chama* or *Pran*, *Volta* or *Adiri*, *Lagos*; the last communicates with the *Kawara*.

The *TEHAD*, *TJAD*, *SCRAD*, or *CHAD*, is the largest lake yet discovered in Africa. Its centre lies in 15° E. long., and 13° 30' N. lat., its length being about 200 miles, and its breadth 150; but during the rainy season its size is greatly augmented, and a broad belt of lowland is overflowed by its waters. It contains a number of islands inhabited by the *Bidoomahs*, a race of pirates who infest its coasts. Its principal feeder is the *Shary*, which enters the lake from the south-east, and was traced 40 miles upward by Major Denham, who found it to be half a mile broad at its mouth, and to flow at the rate of two or three miles an hour. The *You* enters the lake on its west side, but is a comparatively small river, being only fifty yards broad in the dry season near its mouth, where it was crossed by the British travellers. In direct opposition, however, to their testimony, that the *You* flows eastward into the lake, Capt. Wm. Allen and M. D'Arceze suppose that it is really the outlet of the *Tehad*, and flows southward to join the *Tchadda*. The *Tehad* was not known in Europe till the journey of Oudney, Denham, and Clapperton; though it figures in maps of the 16th and 17th centuries as the lake of Bornou. It is probably the *Lybian Lake* of Ptolemy; and on its eastern side there is a valley called *Bahr-el-Gazelle*, resembling the deserted bed of a river, through which it is supposed to have once communicated, and probably still communicates occasionally in great floods, with *Bahr Fitre*, another large lake to the eastward, of which nothing is known but the name.

The coast of Senegambia is remarkably low, and the same flatness extends from the *Senegal* to *Guinea*. Immense forests, the unchecked growth of centuries, with underground clothed with the rankest vegetation, exclude the rays of the sun; leaves and herbage fall and rot, perpetually increasing the depth of a sour damp soil. The current of the rivers is sluggish, owing to the slight inclination of their channels, which are generally broad and shallow, and often contain bars some way up the stream; mud is deposited profusely on their sloping banks, and favours the endless multiplication of mangroves. Inland the surface of the country continues monotonously flat, for a considerable distance, to the foot of the first hills, which swell at last into the great range of the mountains of Kong. The general appearance of the coast of *Guinea* from the sea may be compared, says Mr. Meredith, to an immense forest; highlands are seen in different directions, crowned with lofty trees and thick underwood. On a nearer prospect, and on a strict examination, the valleys will be found in many places richly planted, and extensive plains beautifully studded and decorated with clumps of trees and bushes are also to be seen. As we advance into the country, where there is more moisture throughout the year than on the coast, and where the fertility of the soil produces the most vigorous vegetation, the woods are so stopped up by its luxuriance as to be almost impenetrable; and the surface is hid under a covering of shrubs, weeds, and herbs. The rivers are seen winding in different directions, flowing rapidly in some places, and in others forming stagnant pools.—(*Account of the Gold Coast of Africa*, by Henry Meredith, Esq., Governor of Fort Winnebush. London 1812.) The soil in the vicinity of Sierra Leone consists chiefly of a slight stratum of brown gravel, on a semivitrified rock of the same colour. On the coast of *Guinea*, from Cape Palmas to the river *Volta*, the soil, within five or six miles of the shore, is of a silicious nature; the clumps of hills, which are to be met with in every direction, are composed principally of gneiss and granite. Farther inland the sandy soil becomes more and more mixed with decayed animal or vegetable matter, and in the valleys a rich alluvial soil is met with.—(*Martin's Western Africa*, 259.) Water, also, which on the coast is scarce and brackish, becomes in the interior good and plentiful. Farther east the maritime flat country becomes broader than on the gold coast, and extremely fertile, terminating at last with the swampy delta of the *Kawara*, which is profusely covered with rank vegetation.—(See *VEGETATION*, in the general description of Africa.)

Of the physical features of the interior of *Soudan* we are unable to give any general satisfactory account. The western part of the country consists of the basin of the *Kawara*, bordered on the south and west by mountains, on the north by the desert, and having its eastern boundary formed by a range of hills and high ground which divide it from the basin of the *Tehad*. The latter basin, supported on two sides by mountains, is probably a table-land of considerable elevation, the lowest part of which is occupied by the great lake; but in that respect, nothing is positively known. Its elevation, however, is certainly not so considerable as to raise it into the cooler regions of the atmosphere; while its situation in respect of the desert and the sea, open to the one, and secluded from the other, necessarily renders the climate hotter than that of the maritime regions farther south and nearer the equator.

The climate of *Soudan* is tropical; and the maritime region of *Senegambia* experiences the most intense heat. There are only two seasons, the one of which may be considered as a moderate summer, the other as a continuance of burning dog-days. During the whole year the sun at mid-day is insupportable. The north and north-west winds blow almost without interruption. The east or trade winds are only felt within 100 or 120 miles of the coast; the south wind is very rarely felt. During the great heats a dead calm prevails for about 30 days, which enervates the most robust constitutions. From the beginning of June till the middle of October, sixteen or eighteen heavy rains fall; during

the rest of the year there are heavy dews. At Sierra Leone, farther south, the range of the thermometer is very small; the average heat is 82° ; the rains continue for six months and flood the country; but the climate is now as healthy to Europeans as any other tropical climate. From the proximity of the coast of Guinea to the equator it might be supposed that its climate is hotter than that of the parts of Africa situate nearer the tropics; but this is not the case. It will be found, on the contrary, that along the equator, and about 5° or 6° on each side of it, are the most temperate parts of inter-tropical Africa. The sun has less power there than in more northerly or southerly countries, because it is more obscured throughout the year. In December, when the sun is at its greatest distance from the tropic of Cancer, the heat at Senegal has been found to be 93° , and at Sierra Leone 98° in the shade, yet Senegal is in 16° N. lat., and Sierra Leone about 8° . At Cape Coast Castle, 5° N. lat., the thermometer has been found as high as 93° ; but the usual height observed in the hottest months was from 85° to 90° , and that place is considered the hottest on the Gold coast. To the eastward of Cape Coast Castle, the heat has been seldom known to exceed 87° ; and has been observed so low as 74° at Winnebah, in June, July, August, and September, and not higher than 78° . The seasons are similar to those of every tropical country, and may be divided into the wet and the dry; of the latter, however, there are two in the year, one commencing at the end of May or early in June, the other at the end of October or early in November; but the last scarcely deserves the name of wet season in comparison with the heavy rains of the other. The first rains set in with a violence unknown in temperate latitudes, and continue without intermission for two or three days. The quantity which falls during the season is inconceivably great; low lands are overflowed, and rapid streams are formed with amazing celerity. After this flood the atmosphere clears, and strong breezes commonly follow; the heavy rains are not again expected, though showers fall at the changes of the moon, which produce as much water as would fall in England from a whole day's rain. About the end of July the rains are considered to be at an end; and shortly after, the foggy season commences; a season, if it may be so called, which is very unhealthy, but the only unhealthy season that is known on the coast. The commencement of the foggy season is a sure indication that the rains are over; it commonly terminates about the 10th of August, after continuing two or three weeks. While it lasts the atmosphere is thick and heavy, the clouds are very low, the sea breezes do not blow with their usual power, and the land winds are scarcely perceptible. The effects of this season are much felt by asthmatic people and those whose lungs are unsound. The second rainy season is not nearly so violent as the first; the rains do not fall in the same constant stream, and are not succeeded by fogs. The dry season commences in November, and continues for the remainder of the year, that is, till May. The winds are regular and mild. The land winds, which blow from the N. and N.N.W., and the sea breezes, which blow from the S.W. and W.S.W., prevail, with little interruption, throughout the season. The sea breeze commences about 9 or 10 o'clock in the forenoon, and declines at six in the evening; it ceases about 8 or 10, and is succeeded by the land wind, which blows till 6 or 8 in the morning. The sea breeze is stronger than the land wind, and, at the full and change of the moon, generally blows with considerable force. As the sun rises in the heaven this wind gains strength, and declines gradually as he approaches the western horizon; it is very refreshing, and is considered salubrious. In the dry season the coast, from Cape Verde to Cape Lopez, or from 15° N. to 1° S. lat., is visited by two remarkable winds, called tornadoes and harmattans. The harmattan or harmanta, is an easterly wind which prevails in December, January, and February; it commences at any hour of the day, at any time of the tide, or any period of the moon; and continues sometimes only a day or two, sometimes for five or six days, and has been known to last 15 or 16. There are generally three or four returns of it every season; it blows with moderate force, not so strongly as the sea breeze, but somewhat more so than the land wind. A fog or haze always accompanies it; and the gloom which it occasions is so great as sometimes to render even near objects obscure. The sun appears only for a few hours about noon, and is then of a mild red colour, exciting no painful sensation to the eye. Extreme dryness is another remarkable property of the harmattan; no dew falls while it lasts, nor is there the least appearance of moisture in the atmosphere; vegetation is much injured; tender plants and most of those in the gardens are destroyed; the grass withers and becomes like hay; even the vigorous evergreens feel its pernicious influence. The eyes, nostrils, lips, and palate of men and animals become dry and disagreeable; the lips and nose become sore and even chapped, and, although the atmosphere is cool, there is a troublesome sensation of prickly heat on the skin. If the harmattan continue for four or five days the scarf skin peels off, first from the hands and face, and afterwards from the other parts of the body, if it continue a day or two longer. To a European it produces the sensation of a very slight frost. Salubrity forms a third peculiarity of the harmattan; it is highly conducive to animal health; people labouring under fluxes and intermitting fevers generally recover during its continuance; and those who have been weakened by the disease or the remedies, recover their vigour. It stops the progress of epidemics; and infection cannot be communicated even by art. Its effect on furniture is very remarkable; it exposes the deceptions of the cabinet-maker in the most singular manner; it contracts flooring so much that light passes through. The process of evaporation, indeed, proceeds with astonishing rapidity. Tornadoes most commonly commence in March, and cease when the rain sets in. They sometimes blow before or after the second rains, and sometimes precede a harmattan; they are felt, however, with greater violence before the first rains. They blow invariably from the eastward; that is from south-east to north-east; when they incline to the southward of south-east they have more the appearance of steady gales of wind than of tornadoes. Tornadoes may be expected a day or two after the full and change of the moon, and give sufficient notice of their approach, so that ships have time to prepare for them. When vivid and successive flashes of lightning are seen in the east, attended by thunder and heavy clouds, while the horizon appears clear and of a blueish cast, an approaching tornado is indicated. As the storm advances, the horizon becomes darkened, and soon the eastern sky is entirely overcast; the lightning flashes vividly and in quick succession, attended by slow and apparently distant thunder. By and by a gentle breeze is felt, which increases almost instantaneously to violent gusts of wind, which are usually accompanied with rain, and which, in general, do not continue longer than half an hour or fifty minutes. When the violence of the blast is over, the rain falls with great rapidity and in considerable quantity. The lightning and thunder again commence, followed by wind and rain; but words cannot adequately describe the awful sublimity of the scene. When the violence of the storm is over, rain continues to fall for several hours; after which the sky clears up, but the sun continues obscured for the rest of the day. During their continuance the thermometer falls 5° or more in a very short time. The heavy rains which accompany and succeed a tornado, refresh the earth, quicken vegetation, and cool the atmosphere to such a degree that the natives endure the mid-day heat of those months without inconvenience; and, in July and August, when the people in the southern parts of Europe are exposed to an oppressive heat, the natives and residents in Guinea enjoy a moderate and agreeable temperature, while vegetation proceeds with such rapidity, that the country, especially inland, exhibits a degree of fertility inconceivable to those who are strangers to tropical regions. — (*Meredith*, chap. 1.)

Of the mineralogy of Soudan very little is known; it produces abundantly in some places the precious article of gold. The kingdom of Bambouk is almost entirely a country of mountains, from which flow numerous streams, almost all of which roll over golden sands; but the principal depositories, where the metal is traced as it were to its source, are the two mountains of Natakou and Semayla. The former of these consists of an almost entire mass of gold, united with $92\frac{1}{2}\%$ iron, and emery.

in Semayla the gold is embedded in hard sandstone, and partly in red marble. Gold, indeed, seems to abound throughout all the range of the mountains of Kong; and a portion of Guinea has been named the Gold Coast, from the abundance of that metal which is or used to be brought from the interior. We know also that iron is forged in several places; and no doubt other metals will be found in abundance, when the pioneers of civilization shall have succeeded in reaching their localities.

The forests contain cocoa trees, palms, mangoes, bananas, tamarinds, papaws, citrons, oranges, pomegranates, and sycamores; the locust tree, which yields an agreeable beverage; the shea or butter tree; the tallow tree; the teak tree, now become a valuable article of export; and many others, among which the immense baobab or *adansonia* stands pre-eminent. Its fruit, called monkey's bread, affords abundant food to the negroes; the whole of Senegambia and Guinea is adorned with its green arcades; and the name of Cape Verde (the Green headland) is said to have been suggested by the hue of its foliage. Of aromatic plants are pimento, Spanish pepper, malaguette (*cardamomum majus*), and ginger. Cotton succeeds, and even exceeds that of Brazil; the indigo is excellent; and the valuable gums which the country supplies furnish important articles of commerce. These are gum-guaita, red astrigent gum, gum-copal, the inspissated juice of euphorbium, and gum-dragon; several dye-woods are also found. Alimentary plants are met with in great abundance, as maize, millet, rice, yams, casada, potatoes, pulse, plantains, bananas, guavas, chillies of all kinds, and other tropical fruits. A mucilaginous vegetable (*heluscus esculentus*) is plentiful in the country, and is much used by the natives in their soups. Another mucilaginous fruit called enteraba is also highly nutritious. European cabbage and eschallots are cultivated in some places; the sugar-cane grows spontaneously, and the black pepper has been discovered in the interior of the Gold Coast. The palm tree is very profitable to the natives; the trunk produces an agreeable, but intoxicating liquor, called palm wine; and the fruit yields an oil of great delicacy, which the natives use in all their dishes, and which has now become a very important article of their trade with Europeans. Of its leaf they make ropes and thread, which they convert into fishing lines and nets; a finer thread is made from the filaments of the leaf of the wild aloe and the pine apple. Tobacco grows every where abundantly, and the negroes are extravagantly fond of smoking it. The exuberant abundance of the aloes, balsams, tuberoses, lilies, and amaranths gives the flora of these countries a degree of magnificence which is quite surprising to Europeans. But perhaps the most singular feature of the vegetation is the height to which the Guinea grass grows. This plant forms immense thickets, from ten to thirty feet high, where herds of elephants and boars wander unseen. In the dry season it withers, and then, in order to clear the ground, the natives set it on fire. When kindled, the fire spreads with great rapidity, forming by night long lines of light, and by day filling the air with columns of smoke; and it is this practice which appears to furnish the most natural explanation of the "torrents of fire" seen by Hanno the Carthaginian in his voyage of discovery.

No part of the world produces greater numbers of elephants, monkeys, antelopes, deer, rats, and squirrels. In Soudan the elephant lives in a state of nature, and is no where tamed; the river-horse grows to a monstrous size; but the rhinoceros seems to be unknown. The lion is less common than the panther and the leopard; the spotted or striped hyena is frequently seen; jackals are formidable and destructive; the tall giraffe is found in the deserts; the zebra lives in droves, and is hunted for the sake of both its skin and its flesh. Varieties of monkeys abound in all the forests, the most remarkable being the kimpnzay (or chimpanze, *Simia troglodytes*). It approximates less to the human form than the orang-outang of the Eastern Archipelago, but perhaps surpasses him in intelligence. Two remarkable animals, the *lemur galago*, and the *lemur minutus*, akin to the monkey tribe, have hitherto been found only in Senegambia. The potto or sloth is common in Guinea. The negroes catch the zibeth in a very young state, and tame it. The boar peoples the marshy forests; but the pig is small and weak. The dogs are of the size of setters, but approach in form somewhat to the mastiff; they do not bark, and their hair is short, coarse, and red, as in all warm countries. The horses of the Gold Coast are small and ugly, but Adanson admired the horse of Senegal; this river is probably the southern limit of the Berber or Moorish breed. The ass is exceedingly handsome and very strong. The negroes rear beves, buffaloes, sheep, and goats. The birds exist in great numbers and in boundless variety; some of the smaller species are remarkable for the beauty of their plumage. The monoeros or trumpet bird is found in all the negro court-yards, along with the armed swan, the Egyptian swan, the pintado, and the greater part of the poultry known in Europe. Of the wild birds we may specify the aigrette, whose feathers form an article of trade; and beautiful parrots in unlimited numbers, numerous families of sparrows and humming-birds sport round the huts of the negroes, and the baobab supports the nest of the solitary pelican.

The whole region is much infested with noxious and venomous insects and reptiles. Cameleons are very common on the Gold Coast; also crocodiles or alligators, lizards, land-crabs, guanas, scorpions, centipedes, and a variety of snakes, some of which are of enormous size. In the forests the termites or white ants display their astonishing industry, and their destructive power; but there are also numerous swarms of wild bees, whose honey and wax are objects of trade among the negroes. Crocodiles, caehalots, and manatis inhabit the mouths of the great rivers. Oysters are said to fasten in great multitudes on the immersed branches of the mangroves, with which these rivers are bordered; they are large, fat, and very agreeable food, though less cool and refreshing than those found in more northern latitudes. The lakes and rivers abound with mullet and other delicate fish; and the sea swarms with fish of various kinds, which are caught in great abundance during the dry season; turtle also are often found.

All the inhabitants of Soudan are of the Negro or Ethiopie family (see *anté*, p. 107), but among them are numerous varieties, some being more or less dark coloured, or making a near or more distant approach to the European character than others. Of these we must particularly distinguish the *Foulahs*, who are widely diffused over Africa. The great majority of the nation are found about the sources of the Gambia and the Rio-Grande; but colonies of them are also found on the banks of the Faleme and the Senegal: there are likewise tribes of them to the south of Fezzan, and on the confines of Bornou, and even in the interior of that kingdom, where they are called Fellatahs. They also inhabit the kingdoms of Massina and Timbuctoo on the Kawara, and have established a wide extended empire in Haoussa. They have a reddish black or a yellowish brown complexion, longer and less woolly hair than that of the negroes, less flat noses, and lips not quite so thick; with features which seem to indicate a mixture of Berber and Negro blood. They are a people of mild dispositions, with flexible dispositions and a natural aptitude for agriculture. They formerly did not live in towns, but were scattered over the country, attending to their herds and flocks, living in temporary huts, generally in the midst of unfrequented woods, and seldom visiting the towns. But from this condition they were roused by a countryman, Sheikh Othman Danfodio, a native of Ader, who built for himself a town to which the Fellatahs flocked. He led them to war and conquest, till at length doubly animated by the lust of plunder and the ardour of fanaticism, they have become a large and powerful nation; they are all Mahometans. With respect to the genuine negro races; the names of their families, tribes, and localities are sufficiently indicated in M. Babi's table, contained in our general description of Africa. They are all in a low stage of civilization, living in the simplest manner, and practising only the simplest arts; but, at the same time, there is no part of the world where the influence of variety of government on the character of the people is more distinctly perceived than in Soudan. In general they have a great desire for gain, and will undergo many vicissitudes and

hardships to obtain it; they are patient under misfortunes, and meet affliction with fortitude. Frugality and temperance in eating generally prevail among them. They have a great genius for oratory; and, on occasions where they are obliged to display their eloquence, their expressions are accompanied with much feeling and energy. They are disposed to singing, dancing, and music; and seem to have a strong feeling of harmony. The women are very industrious and remarkably prolific. Those of the interior are almost all Mahometans, and the Mandingoes have carried that religion with them even down to the west coast; but the mountains of Kong seem to have formed an insuperable obstacle to the progress of Islam into the maritime regions of Guinea, where fetichism is the prevalent faith.

TOPOGRAPHY.—The maritime regions of Soudan are commonly divided by European geographers into *Senegambia* and *Guinea*; the boundary between them has never been precisely defined, but is usually fixed on the coast at Cape Mount, 175 miles S.E. of Sierra Leone; Senegambia extending northward from that point to the borders of the Sahara, and Guinea eastward to the river and mountain of the Cameroons. With a few unimportant exceptions, Senegambia is possessed by a number of nations or petty states, all belonging to the three great families of Iolofs, Poules or Foulahs, and Mandingoes, who are distinguished by the constitution and forms of government. This is every where indeed monarchical, but is sacerdotal and elective among the Poules, hereditary and despotic among the Mandingoes, mixed and feudal among the Iolofs. But in the midst of all these states there exist mercantile villages, which are leagued together for mutual protection. The two principal of these, that of the *Serrawallis*, and that of the *Diolas*, have extended their transactions from the coast far into Soudan, and are indefatigable in carrying on an extensive and varied trade.

The **IOLOF STATES** are governed by princes whose titles vary in each; the crown always descends hereditarily in the same family, but in the collateral line, and the great vassals have a voice in the choice of the sovereign. The principal states are as follows:—*Wallo*, the king of which is called Brak, is near the mouth of the Senegal, and completely under the influence of the French. *Cavor* or *Kayor*, whose king is entitled Damel, extends along the coast from Senegal southward to beyond Cape Verde, and is the most considerable of the Iolof states. Its principal towns are *Ghighis* the capital, and *Kokyn*, on the eastern frontier, a place with 5000 inhabitants. *Baol*, whose sovereign is styled Teyn, and whose capital is *Lunbaye*, 190 miles E. by S. of Cape Verde. *Syn*, to the south of Baol, and whose king's title is Bour. *Iolof* itself, properly so called, formerly the nucleus of a considerable state, but now much reduced, and of which all the other Iolof states are only dismembered portions, is governed by a Bour, who resides at *Warghagh*, *Warkur*, or *Warneo*, east of Cape Verde. The country contains vast forests of gum-trees, particularly of gum-copal. It produces also abundance of ivory, skins, and honey. *Salum*, which is partly Iolof and partly Mandingo, but principally belongs to the former, as is indicated by its king's title, which is Boar, is situate on the northern bank of the Gambia.

The **POUL or FOULAH** states were formerly governed by *Salitiques* or *Siratiques* (warriors); but the sovereign power is now in the hands of a religious chief, who, like the Moslem caliphs, takes the title of Emir-el-moumenyn (commander of the faithful), vulgarly corrupted into Alhamy. He is chosen in each state by a council of kiernos or princes; under whose controul he is, and can do nothing important without their assistance. Of the Foulah states the following are the principal:—*Fouta-Toro*, which extends along the left bank of the Senegal, and is divided into three large provinces, which are subdivided into districts. These provinces are, Fouta proper in the middle, *Toro* to the west, and *Damgaa* to the east. *Bondou*, to the south-east of Fouta-Toro, is also divided into provinces and districts; the capital and residence of the Alhamy, is *Jebané*, a small town surrounded by clay walls, and containing only 1800 inhabitants. *Fouta-Jalo* occupies the elevated mountainous region which contains the sources of the Senegal, the Gambia, the Faleme, and the Rio-Grande. It comprises the three provinces of *Timboo* or *Teemboo*, *Laby*, and *Temby*, with their dependencies, which extend both to the west and to the east. *Timboo* or *Teemboo*, 230 miles N.E. of Sierra Leone, is the capital of the state and residence of the Alhamy, and has a population of 9000. *Kasso* or *Cason*, which formerly extended to the north of the Senegal, is now limited to the single province of *Logo*, to the south of that river, near the falls of Felou and Gouina. *Fouladoo* or *Fouladougou*, which comprises the provinces of Brouko and Gangaran, is little known. The principal town seems to be *Bangassi*, the best fortified of all the towns of Western Soudan.

The **MANDINGOE STATES** appear to form bodies politic less homogeneous than those of the Iolofs and the Foulahs. The principal are:—*Kaarta*, to the north-east of the Senegal, between the basin of the river and the territory of Ludamar; its capital was formerly *Kenmoo*, but is now at *Joko*. *Bambouk*, between the Ba-fing or Upper Senegal and the Faleme, is an aggregation of districts, as *Niagala*, *Natiega*, *Tambaoura*, *Satadoo*, *Koukadoo*, *Camana*, *Waradoo*. *Dentilia*, on the left bank of the Upper Faleme, noted for the industry of its inhabitants and its iron mines. *Tenda*, separated from Dentilia by the wilderness of Samakara, which also bears the name of *Tenda*. *Woolli*, on the north side of the Gambia, to the south-west of Bondou, from which it is separated by the wilderness of Simbani. Its capital is Medina, with 5000 inhabitants. *Yani*, called also the kingdom of *Kataba*, from its capital, on the north bank of the Gambia, between Woolli and Salum. Further west, towards the mouth of the river, are the small states of *Budiboo*, *Sanjalli*, *Kolar*, and *Barra*, ancient dependencies of the Iolof kingdom of Salum. *Kaboo* extends from the Gambia to the Jéba; of which the small states of *Kantor*, *Tomani*, *Jenarou*, *Eropina*, *Yamina*, and *Jagra* appear to be dependencies; it also exercises sovereignty over the *Biafrus*, *Balantes*, and *Papels*, whom the Mandingoes have driven down to the coast. *Fouini* comprises the provinces of *Combo*, *Jereja*, and *Kaen*, and exercises dominion over the *Feloopes* and *Banyons* of the coast.

The indigenous states of Senegambia are:—*Galam* or *Kayaga*, which belongs to the *Serrawallis*, is a narrow strip, along the left bank of the Senegal, and is divided by the Faleme into two provinces, each governed by a prince, who bears the title of Tonka. *Jallonkadoo*, which comprises the provinces of *Kullo* and *Gadoo*, is the last remaining possession of the independent *Jallonkas*. It is a country covered with forests, and almost a perfect wilderness, watered by the upper branches of the affluents of the Senegal. Farther south along the coast are:—*Timmani*, a small country watered by the *Scarcies* and the *Lower Askelle*, adjoining Sierra Leone. *Kouranka*, an extensive country to the east of *Timmani*, appears to be divided into several states, of which *Kouranko Proper* seems to be the principal. *Solima* or *Soulimana*, to the north of *Kouranka*, is the most civilized state in the neighbourhood of Sierra Leone. *Falaba*, a town with 6000 inhabitants, is the residence of the king. The kingdom of *Cape Mount* extends from the river Gallinas to the Grand Bassam, along the coast, and to a great distance inland; of which *Coussea*, near the source of the Cape Mount river, is the capital, and has a population of 15,000 or 20,000.

GUINEA has been visited by European traders ever since the middle of the fifteenth century; who have divided the coast into four great regions, named from the principal articles which they produce. These are: 1. The *Grain Coast*, so called from its producing the malaghetta, a species of pepper, extends from Cape Mount or Cape Mesurado, to Cape Palmas. 2. From Cape Palmas to Cape Apollonia is the *Ivory Coast*, so called from the quantity of that valuable article produced by its numerous elephants. 3. The *Gold Coast*, extending from Cape Apollonia to the Rio Volta; which was long the most frequented by European traders, not only for gold, but also for slaves. 4. The *Slave Coast* includes the remainder of Guinea, extending eastward from the Rio Volta. The principal

native states in Guinea are those of *Ashantee*, *Dahomey*, *Adra*, *Badagry*, *Lagos*, &c. *Ashantee* has become, within the last century, a powerful empire, extending along the coast from the river St. Andrew, 6° W., to the Popo, a dependency of Dahomey, about 1° E. long., or altogether about 480 miles, comprising a number of petty states, tribes, and nations formerly independent. The *Ashantees* themselves amount to about 1,000,000 of people, inhabiting *Ashantee* Proper, a region of 14,000 square miles inland from the Gold Coast. They are a very superior class of negroes, manufacture excellent cotton cloth, smelt metals, and build large houses. The country is governed by a king, aided by four chiefs as counsellors. His majesty's legal allowance of wives is 4000; and polygamy is carried to a dreadful extent among his subjects. They are a brave, but savage people; they sacrifice whole hecatombs of human victims to propitiate the spirits of their ancestors; and, on the death of any member of the royal family, thousands are slain, to attend him in the other world. The capital of the empire is *Komassi* or *Komassie*, 120 miles N.N.W. of Cape Coast Castle, a large town with regular streets, all of which are named, and each under the charge of an officer of police; but the houses are low, cemented with clay, and thatched. In the centre is the king's palace, inclosed with a wall, and containing small chambers decorated with a great profusion of gold and silver ornaments, and sculptures of birds and other animals pretty well executed. *Komassie* is the centre of a great trade, carried on not only with all parts of the empire, but also with Timbuctoo and Kashena in Central Soudan. Its permanent population is estimated at 15,000, but, on great festivals, 100,000 are sometimes assembled. The other principal places are: *St. Andrews*, near the middle of the Ivory Coast, the residence of a petty king, and the seat of considerable trade; *Cape Lahou*, a large trading town, which exports a great quantity of gold dust; *Grand Bassam*, a large town with a flourishing trade, particularly in the export of gold dust; *Accra* or *Ankran*, the capital of a kingdom of the same name, and containing about 12,000 inhabitants. In the interior are, *Abbradie* and *Dankara*, the capitals of two petty tributary states, which contain the richest gold mines in the empire; *Kickiwherry*, in the kingdom of Assin, and *Coranza*, in a kingdom of the same name, whose inhabitants are more civilized than the *Ashantees*; *Diablie*, the capital of Amina; *Sallagha* (*Sarem*), the capital of the kingdom of *Iffa*, which extends to the left of the Rio Volta, and whose inhabitants are chiefly Mahometans, distinguished for their industry and civilization. *Sallagha* is one of the greatest commercial marts in the empire. *Yandi*, the capital of the great kingdom of *Dagoumba*, is a very commercial town about as large as *Komassie*, and the residence of a Mahometan king, who is tributary to *Ashantee*. The inhabitants are very industrious, and the town contains an oracle of great repute among the negroes.

The kingdom of *Dahomey* appears to extend from the eastern frontier of the *Ashantee* empire to the frontiers of *Yarriba*. It contains a number of large and populous villages: the principal towns are: *Abomey*, the capital, about 80 miles from the coast, a well-built town, with 24,000 inhabitants; but the king usually lives at *Culmina* or *Agona*, where he has two palaces or country houses; *Whydah*, the capital of a kingdom of the same name, formerly independent; *Gregon*, a large town with 20,000 inhabitants; *Grand-Popo* or *Iffa*, a considerable town on an island at the mouth of the Moussi, and the capital of a small tributary state. The kings of *Dahomey* have been long famous for their ferocity. Mr. Dalryell, who paid one of them a visit towards the end of last century, found the road to the royal cottage strewn with human skulls, and the walls adorned, or almost covered, with jaw bones. His government is the most rigorous despotism, the lives and properties of his subjects being entirely at his disposal.

The kingdom of *Adra*, formerly tributary to *Dahomey*, but now belonging to *Yarriba*, is situate on the coast to the south-east of *Dahomey*. Its capital, *Albida* or *Ardrab*, is a well-built and commercial town, with 20,000 inhabitants. The kingdom of *Badagry* is a very small state, whose capital, of the same name, is the place where several European travellers have landed on their way to the interior. The kingdom of *Lagos* or *Avane*, is a small state at the mouth of the river *Lagos*. Its capital, of the same name, has about 5000 inhabitants, and has become noted as the largest slave market in Guinea. It is built on a small island at the entrance of *Cradoo Lake*, which extends about 70 miles parallel to the sea, from which it is separated by a narrow bank, and communicates with the river of Benin.

Along the coasts of both Senegambia and Guinea, several of the European nations have long had settlements. Those of the French are situate on the Senegal, and along the coast between the desert and the Gambia; the Portuguese stations are between the Gambia and Sierra Leone; the British and Dutch settlements are on the Gold Coast, and the former also at Sierra Leone and Isle de Los in Senegambia.

The *French Possessions* are divided into the two arrondissements of *St. Louis* and *Gorce*; the former comprising the island of *St. Louis* in the Senegal, and those of *Labague*, *Safal*, and *Ghimbar*; and the different factories along the river, as *Kamou*, *Makana* or *St. Charles*, *Bakel*, *Dagana*, and *Fuf*; with the *escales* or gum markets of *Cog*, *Darmankours*, and *Trarzas*; and also that part of the sea coast, which extends from Cape Blanco to the Bay of *Iof* or *Yof*, on the north side of Cape Verde. The arrondissement of *Gorce* comprises the island of *Gorce*, and the coast from the bay of *Iof* to the mouth of the Gambia, where is situate the factory of *Albreda*. But it may be remarked that the French dominion does not extend over all the countries which border these coasts, most of which are independent. The capital of the French possessions is *St. Louis*, a well-built town, on an island or sandbank in the Senegal, near its mouth. It is the entrepot of the trade of that river, the principal article of which is gum. It has an agricultural society, and contains about 6000 inhabitants. *Gorce*, a small town, with about 3000 inhabitants, is situate on a small island or rock, of the same name, on the south side of Cape Verde. *Bakel*, on the Senegal, in Bondou, is a small place with only 400 inhabitants, but has a garrison of 100 soldiers. *Dagana*, a negro village in the kingdom of *Walo*, with 1200 inhabitants. *Makana* or *St. Charles*, a factory built in 1825, on the site of Fort St. Joseph, above *Bakel*. *Portendik*, on the coast, in the territory of the Moorish tribe of Anlad-Ahmed-Bahman, is inhabited only at the season for selling gum to European traders. It is about 170 miles N. from the mouth of the Senegal, and there are large gum forests in the neighbourhood.

The *Portuguese Settlements* comprise only the small places or stations of *Cachao*, *Bissau*, *Zingichor*, *Faim*, and *Geba*, all in the vicinity of the Rio Grande and Casamanza rivers, and *San Domingo* on the Rio Pongo. *Cachao*, a small town with a harbour, and 500 inhabitants, is the residence of the governor.

The *British Possessions* in Senegambia are those of *Sierra Leone*, the *Isle de Los*, and the *Gambia*. *Sierra Leone* (Lion Hill) is a peninsula, extending from the estuary of Sierra Leone to Yawry bay; presenting an irregular mass of peaked mountains, with valleys and prairies lying between them. The mountains are covered to their summits with lofty forests, which give the scenery a beautiful, rich, and romantic appearance. The river which forms its eastern boundary is a noble estuary extending 20 miles inland, varying in width from 10 miles at its entrance, to 4 where it terminates. The settlement was formed in 1787, with the view of commencing the introduction into this part of Africa of the benefits of European civilization. It has been largely colonized by maroons and negroes from America and the West Indies, and captured slaves; and in 1833, contained 29,764 inhabitants; but its prosperity has advanced very slowly, and, so far as regards the objects originally intended, the settlement may be pronounced a failure. Throughout the peninsula there are several villages; but the capital is *Freestown*, at the northern extremity, a well-built place, with regular and spacious streets. The settlement has long laboured under the imputation of extreme unhealthiness, and has been called "the white man's grave," but, it has of late years very much improved in this respect, and

is, indeed, now represented as not more unhealthy than any other place within the tropics, Europeans being indebted for their great mortality more to their improper manner of living than to the character of the climate. The *Isles de Los*, in N. lat. $9^{\circ} 16'$, W. long. 16° , five in number, about 60 miles N. of Sierra Leoné, are very valuable as a station for the trade which is carried on with the rivers of the adjacent continent, consisting in the exchange of British goods, for hides, ivory, gold dust, &c. There are several establishments on the Gambia. The principal is *St. Mary's Island*, at the entrance of the river, which it commands; it is 15 miles long, but narrow and flat; its chief town is *Bathurst*, at the eastern point. *Fort-James* is situate on an island about 30 miles up the river, only 200 yards long and 50 broad, and imperfectly fortified. Opposite the fort, on the north bank, is *Jillifree*, in a healthy situation, and surrounded by a fertile district. On the south bank are *Vintain*, *Tancroval*, and *Jonka-kandi*, of which the first is 2 leagues, the second 12, from fort St. James, and the last is considerably up the river. *MacCarthy's Island* is more than 300 miles up the river.

The British Settlements on the Gold Coast are *Dix-Cove*, *Suwindee*, *Comenda*, *Cape-Coast Castle*, *Annamaboo*, *Tantum*, *Winnebah*, and *Accra*. These were formerly in the possession of the African company, and afterwards taken under the immediate charge of the British Government, but in 1828 were again placed under the management of the merchants of London engaged in the African trade. The business in London is managed by a committee of three merchants, appointed by Government, and accountable to the Secretary of State for the proper application of the funds allowed for the maintenance and defence of the settlements, which amount to £3500 a-year. With this sum eighty men are clothed, armed, and maintained, for their defence, and all other expenses provided for. The forts are governed by a president and council. *Cape-Coast-Castle* stands on a rock of gneiss and mica slate, about 20 feet above the level of the sea, in $5^{\circ} 6' N.$ lat., and $1^{\circ} 10' W.$ long.; it is an irregular square, with a bastion at each angle (Mr. Martin says "four bastions at each angle," which is certainly incorrect), the whole mounting about 80 guns. Within are spacious buildings for the accommodation of the residents. Outside there is a native town; and the adjacent country to a considerable distance has been cleared and rendered fit for cultivation. The ruling natives are the *Fantees*, a clever, stirring, turbulent race. *Annamaboo*, 10 miles E. of Cape-Coast Castle, is a good square fort close on the sea, with a native town embracing it in the form of a crescent. At *Accra*, in $0^{\circ} 5' W.$ long., is the British station of *James' Fort*. The other settlements, says Mr. Martin, require no separate notice. The trade of these settlements, and generally of Western Africa, is of considerable importance to Great Britain, and is yearly increasing. The exports alone amount to the value of £300,000.

The Dutch settlements consist of: *Fort Antonius*, near *Axim*, and *Fort Hollandia* or *Fredricksburg* near *Pockeso*, with several others. The principal settlement is *Elmina*, or *St. George de la Mina*, which is the residence of the governor-general. It is a well-built town, with a good citadel, and a fort, a great trade, and about 10,000 inhabitants.

The principal Danish settlement is *Christiansborg*, $2\frac{1}{2}$ miles from James Fort at Accra. The Danes have several other small forts and factories along the coast.

In 1821 a colony of free blacks from North America was founded on the Grain Coast of Guinea, with the view of providing a place to which that class of the inhabitants of the United States might be induced to remove, as well for their own benefit as for that of their native country, over which they might gradually spread some part of the civilization which they had themselves acquired in the new world. The managers of the colony have purchased or otherwise acquired a tract of country extending about 225 miles along the coast, with a breadth inland of 20 or 30, to which they have given the name of *Liberia*. The number of colonists amounts to about 4000. The soil is said to be fertile, and the climate better than in most other parts of the coast. Rice, cotton, coffee, sugar, indigo, bananas, cassava, and yams, are raised; and camwood, palm-oil, ivory, hides, wax, and pepper, are among the exports. The settlement is visited by traders from the interior; and some trade is carried on with Europe and America. The local interests and minor affairs are confided to the colonists themselves, who elect two legislative chambers; but the government is substantially vested in the agent of the American Colonization Society. Their chief town is *Monrovia*, on Cape Mesurado, N. lat. $6^{\circ} 25'$, W. long. $10^{\circ} 26'$, and contains 1200 inhabitants.

CENTRAL SOUDAN contains the following states and towns:—*Sangaran* or *Sangara*, a large country inhabited by idolaters, under several independent chiefs, and containing the sources of the *Joliba*. *Boure*, a small country inhabited by *Jalonkés*, and governed by a Moslem chief, is a hilly region with rich gold mines, the produce of which supplies the markets of both the coast and the interior with that precious commodity. Its capital is *Boure* on the *Tankisso*, an affluent of the *Joliba* on the left. *Kankan*, to the north of *Sangaran*, on the *Milo*, is a busy commercial town with 6000 inhabitants, all Mahometans, and is the capital of a state of the same name. *Wassoulo*, to the north of *Kankan*, is inhabited by idolatrous Foulahs, who are nevertheless very industrious as shepherds and cultivators. The small village of *Sigala* is the seat of the chief, who is rich in his possession of gold and slaves. *Bambarra* lately formed an extensive and powerful kingdom, but is now divided into two states, which may be called Upper and Lower *Bambarra*. In the former is *Sego*, on the *Joliba*, a large town with 30,000 inhabitants, according to Park, and the capital of the kingdom; *Dammakoo*, a commercial town farther up the river; *Marabou*, *Yamina*, *Sami*, *Sansanding*, and *Sillar*. The kingdom of Lower *Bambarra* was established some years ago by a Foulah chief, and is now the principal power in Western Soudan. Its capital is *Jenneh*, a large well-built town at the end of a small island in the *Joliba*, and is the seat of a great trade. *El-khumdo-l-Allah*, 80 miles N.E. by N. of *Jenneh*, was recently founded for the purpose of enabling the pupils at the schools to pursue their studies away from the distractions and the noise of the capital. *Isuca*, at the confluence of two branches of the *Joliba*, is the port of embarkation for travellers to *Timbuctoo*. *Massina*, on the *Joliba*, is the capital of a kingdom governed by a brother of the chief of *Jenneh*. The kingdom of *Kong*, noted for the industry of its inhabitants, lies to the south of *Bambarra*, among the mountains to which it gives its name. Its capital is a place of the same name. Further down the river, on the right bank, is the state of *Banan*, inhabited by a commercial people resembling the Mandingoes. The country of the *Dirimans* extends along the right bank of the *Joliba* from the lake *Debo* to the environs of *Dirc*, a village dependent on the king of *Timbuctoo*. Its chief resides at *Alcodia*. The kingdom of *Timbuktoo* (*Timbuctoo*), which extends along the *Joliba*, is now confined to much narrower limits than it once possessed, and is obliged to pay tribute to the Tuareks to prevent them from plundering the caravans which come from all quarters to the central point formed by the city of *Timbuctoo*. It is a large open town, 3 miles in circuit, situate in a sandy plain, 8 miles N. of the *Joliba*; the houses are mostly built of brick, but have only a ground storey, and the streets are wide enough for three horsemen to pass abreast. It contains seven mosques. Though its trade has much declined from what it was, yet *Timbuctoo* may be considered as the principal mart of this part of Africa. Its port is at *Kabra*, a small town on the left bank of the *Joliba*. *Borgou*, chiefly to the right of the *Kawara*, is a confederation of several petty kings, the most powerful of whom are those of *Wawa*, *Kiama*, *Niki*, and *Boussa* or *Busuh*. The capital is *Boussa* or *Busuh*, on the left bank of the *Kawara*, with about 12,000 inhabitants. *Kiama*, on the flank of a chain of hills, the residence of the sultan of *Yarro*, appears to be the most commercial and populous town of *Borgou*, and contains so many as 30,000 inhabitants. *Wawa*, one of the finest towns in the country, contains 18,000 inhabitants. The kingdom of *Yaouri*, situate between *Hiaoussa* and *Borgou*, is the most powerful in this part of Soudan, and its sultan has suc-

cessfully repelled the aggressions of the Fellatahs. *Yaouri*, the capital, is a large, fortified, populous, and commercial town on the left bank of the Kaware, in the north-eastern angle of intersection of 11° N. lat., and 5° E. long. The kingdom of *Nyffe* or *Tippa*, to the left of the Kaware, is divided between two brothers, one of them a Mahometan supported by the Fellatahs, the other a pagan. The capital of the former is *Tabra*, a town with 20,000 inhabitants, on the Mayarrow, an affluent of the Kaware. *Koufou*, a little to the east of Tabra, is the most industrious and busy town in Nyffe, with 12,000 or 15,000 inhabitants. *Rabba*, a large, populous, and commercial town of Nyffe, near the left bank of the Kaware, seems to be in possession of the Fellatahs. It is a great entrepot of the trade of Soudan. *Egga*, to the right of the Kaware, a large and populous city, distinguished for the commercial activity of its inhabitants, who possess a large number of vessels with which they trade up and down the river. The kingdom of *Yarriba*, which extends from Pouka near Badagry, on the slave coast, to the frontiers of Borgou and the right bank of the Kaware, in 10° N. lat., is one of the principal states in this part of Africa; the kings of Dahomey, Alladah, Badagry, and Maha, are its tributaries, and Benin is an ally. The capital is *Eyee* or *Katunga*, a large town 15 miles in circumference, built on the slope and round the base of a small chain of hills. It is surrounded by a wall 20 feet high, and a ditch; the houses are built of clay and thatched. The other principal places are: *Bohon*, a large town, formerly the capital; *Daffou*, with 15,000 inhabitants; *Jannah*, *Chaki*, *Kousso*, with 20,000 inhabitants. The kingdom of *Fundah*, *Fandah*, or *Founda*, which is very imperfectly known, extends along the Tchadda, and exercises dominion over a great part of the country situate to the left of that river. Its capital is *Findah*, on the river Okwah, a small affluent of the Tchadda; which is said by Mr. Laird to be as large as Liverpool, and to contain about 60,000 or 70,000 inhabitants, who manufacture cotton stuffs, leather, good beer, and iron. *Jannahar* or *Yimahar* on the Tchadda, is the port of Fundah in the dry season. The kingdom of *Benin* or *Adou*, one of the most powerful in Soudan, extends along the coast from Lagos to Bonny, and 20 days' journey inland; thus including a large portion of the delta of the Kaware; but the interior is still very little known. The capital is *Benin*, a town with about 15,000 inhabitants, 70 miles from the coast. *Wari* a small town with a population of 5000, the capital of a small dependent kingdom of the same name, is inhabited by the Jackeris, a negro race remarkable for their industry, and the mildness of their manners, which form a singular contrast with the ferocious habits of their neighbours, the people of Benin. *Ponny*, a town with 20,000 inhabitants, on an island at the mouth of a branch of the Kaware, is the capital of an oligarchic republic tributary to Benin. It was recently the greatest slave market in Guinea, and is still one of the most extensively commercial towns. *Brass*, a trading town on a creek of the river Nun, west of the Bonny river; with 2000 inhabitants. The kingdom of *Qua* extends from the St. Anthony or Andony river to the Rio del Rey. Its capital is *Old Calebar* or *Bongo*, and its inhabitants, though idolaters, are somewhat civilized. The Old Calebar river forms a wide estuary, navigable for large vessels up to *Ephraim* town, which is governed by a chief who assumes the title of Duke; it contains about 6000 inhabitants. On the lower part of the Kaware are several places, of which our information does not yet enable us to assign to any of the great political divisions. *Boqua*, *Eckwey*, or *Ickwey*, on the left bank of the river, immediately below the hills, is a sort of free port or neutral place, where the people of hostile states may meet without danger. *Atta* or *Itta*, *Adduh* or *Idlah*, $7^{\circ} 40'$ N., also on the left bank, is a large town with 15,000 inhabitants. *Damuggo*, on the left bank, 40 miles below Attah, is the seat of a chief who possesses a flotilla. *Kirri* or *Kirree*, a large town on the right bank, 25 miles below Damuggo, is one of the principal markets in Soudan. *Iboa*, *Eboe*, *Ebbor*, a small town of 6000 inhabitants, not far from the right bank of the Kaware, is the capital of the kingdom of Iboa, and one of the principal marts of the lower part of the river.

The principal states included in the BASIN OF THE TEHAD are the following:—*Bornou* is situate along the sides of the great lake, and seems to consist of *Bornou Proper*, to the south-west of the lake; *Kanem* to the north and east; *Loggen* to the south; a part of *Mandara*, to the south of Loggen; and a part of the country of the *Mungas* or *Mungoi* to the north of the Yeou. The capital is *Birnie* or *New Bornou*, a walled town with 15,000 inhabitants, not far from the Tehad. The other principal places are:—*Kauka*, a small and recently built town, the residence of the Sheikh El Kanemy, who was the actual ruler of Bornou in 1826; *Angornou*, the largest and most commercial town in the empire, with 30,000 inhabitants, besides strangers; *Digoo*, a large walled town, with a population of 30,000; *Birnie* or *Old Bornou*, on the Yeou, formerly the capital, is now entirely ruined; but an extensive space covered with the remains of buildings still attests its ancient importance, when it contained 200,000 inhabitants. *Gambaron*, once a large town on the right bank of the Yeou, is also in ruins; *Delou*, sometime the capital of Mandara, with 10,000 inhabitants; *Mora*, the present capital of Mandara; *Maou*, the capital of Kanem. The kingdom of *Enghermech*, situate to the south-east of the lake, borders on Bornou, but its extent is unknown. The inhabitants are noted among the Africans for their bravery and their industry. *Mesni* appears to be its capital. The kingdom of *Mobba* called *Dar Szah* by the Arabs, *Wada*, by the people of Fezzan, and *Borgou* by the Bornouese, is too imperfectly known to be described. Its capital is *Warra*, which is said to be three times larger than Boulak near Cairo. Only a part, however, of the kingdom seems to belong to the basin of the Tehad. The same may be said of *Dar-Fur*, a considerable territory situate between Dar-Szalch and Kordofan, and of which the capital is *Kobbe* or *Cobbe*, which was visited by Mr. Browne in 1793. It is a dry desert country, lying between the basins of the Tehad and the Bahr-el-Abial.

THE EMPIRE OF THE FOULAHS OR FELLATAH belongs partly to the basin of the Kaware, and partly to that of the Tehad, but the larger portion may be assigned to the former. It was founded by the Sheikh Othman Danfodio, who was a proficient in all the learning of the Arabs, and enjoyed the reputation of being a prophet. He came originally from the woods of Ader or Tadel, and, having settled in Ghoobar, built a town, where the Fellatahs soon began to collect round him. Driven from it by the Sultan, he again settled in Ader, where he built another town; from all quarters Fellatahs flocked to his standard; and in the course of a short time he acquired possession of the whole of Haoussa, with Kano Kubbe, Youri, and part of Nyffe, and extended his ravages almost to the sea-coast. He died in 1816, when his son Bello succeeded to the government of Haoussa; while the conquered territories to the westward were given to his nephew. *Saccatoo*, the capital, is a large city on the top of a low hill near an affluent of the Kaware, about four days' journey from the great river. It was built in 1805 by Danfodio, and has been surrounded by Bello, with a wall 24 feet high, and a dry ditch. Its population is estimated at 80,000. The other principal towns are: *Kashenah*, *Casina*, *Kashua*, formerly a large city, but now so reduced as to occupy only about a tenth part of the enclosure within its wall; *Katavara*, the chief town of Ghoobar; *Zirni*, the capital of Zamfra; *Zariya*, the chief town of Zegzeg, a new town built by the Fellatahs, and containing 50,000 inhabitants; *Magaria*, in Ader, a fine town built by Sultan Bello, which is becoming daily more considerable; *Kano*, the principal mart of Central Africa, a large town with 40,000 inhabitants, is about 15 miles in circumference, and is surrounded by a wall 30 feet high and two dry ditches; but the interior is divided into two by a bahr or morass, which forms a lake in the wet season; *Bachargie*, in the province of Kano, is a large town with several stone houses, and from 20,000 to 25,000 inhabitants, all devoted to commerce. *Kotonko*; *Zangueia*; *Katagom*, on an affluent of the Yeou, one of the principal fortresses of the empire, with 7000 or 8000 inhabitants.

SOUTHERN AFRICA.

THE whole of the continent south of the equator is properly entitled to this appellation; but the limits of the division may be extended a little further north, so as to include the unknown regions which have the great central chain, or supposed chain, of mountains for their northern border, or in other words, to a line drawn from the Cameroons on the Bight of Biafra to the Gulf of Aden. The region may be divided into four portions, the first three of which we shall describe separately, namely, 1. *The Maritime Regions on the West Coast*; 2. *The Maritime Regions of the East Coast*; 3. *South Africa*; and 4. *The Unexplored Interior*, respecting which nothing is known.

§ 1. *Countries on the West Coast.*

These countries, in former times, were usually denominated *Lower Guinea*. The portion extending from the Cameroons to Cape Lopez, is called the *coast of Gabon*; but almost nothing is known of the interior. The evidence, however, which we already possess on this subject goes to prove that along the coast, through 1000 miles in latitude, and probably 40 miles to seaward, there is a constant evolution of sulphuretted hydrogen gas, the breathing of which is extremely injurious to health; and, says Professor Daniel, it is not improbable that our cruisers on the coast are exposed to its exhalations given out from the ocean under a tropical sun, over an area of 40,000 square miles in extent. This he ascribes to the circumstance of the numerous rivers which flow into the Bight of Biafra, from a richly wooded country, bringing down much vegetable detritus, and forming deposits of mud at their mouths; and that thus the most favourable conditions for generating sulphuretted hydrogen are present, in this very case in which so large a quantity of the deleterious gas is found.—(*Friend of Africa*, Feb. 1841.) The only place of any importance on the coast is *Naango* or *Georgetown*, the principal slave market. It is situate on the river Gabon, which flows into Corisco bay, to the north of the equator.

Loango appears to extend from Cape Lopez to the Zaire, or some miles farther, and includes a number of different states or petty kingdoms which we need not particularise. The coast is high and abrupt, but the hills are covered with soil and luxuriant vegetation. The soil is generally a stiff loam, and very productive; but near the coast is an extremely fine sand. The lakes and rivers abound with fish, and the forests with wild beasts. The climate is excessively hot. Rain sometimes falls; but the dews are sufficient for vegetation. Almost the only grains cultivated are manioc, maize, and a species of pulse called msangé; but the greater part of the country is covered with tall grass. The finest fruits grow wild; sugar-cane attains an extraordinary size; palm-trees are very plentiful; potatoes and yams are also very abundant. The Chinese hog is the only animal reared for domestic use. The people reside in villages, or clusters of straw huts in the midst of palm groves. They are in the lowest state of degradation, indolent, debauched, filthy, cowardly, and superstitious. The capital of all the country is *Loango* or *Banza-Loango*, situate in a large and fertile plain, about two miles from the coast, in $4^{\circ} 36'$ S. lat., and is said by M. Grandpre to have a population of 15,000. The other principal towns are: *Kingulle*, the capital of Ca-Congo; *Malemba*, a great slave market on the coast; *Cabenda*, in Ngojo, in a beautiful situation, with a fertile soil, and a good harbour, is one of the principal slave markets on the coast.

Congo, as originally known to the Portuguese, extended from Cape Lopez to Cape Negro, including not only Congo Proper, but also Loango, Angola, and Benguela; but its limits seem to be now restricted to a small territory, stretching along the left bank of the Zaire. Near the sea the country is low and flat, traversed by numerous streams, and abounding in sandy deserts, but in general very fertile. The climate is very pestilential. The interior consists of a number of terraces or acclivities, forming a fine, rich, and populous region. The principal physical feature is the great river *Zaire*, called also *Couango*, *Barbela*, *Moienzi-Enzaddi*, and *Zembere*, which enters the Atlantic Ocean with a great body of water in $6^{\circ} 5'$ S. lat. Immediately off its mouth, in the current of its channel, Captain Tuckey found no bottom with 150 fathoms of line; and it was observed, that though the current made a rippling noise, resembling that of a mill sluice, yet it was seldom found to exceed $4\frac{1}{2}$ or 5 knots an hour, and in many places not more than $2\frac{1}{2}$. At its mouth it is 10 miles wide; a little higher up it diminishes to 7; and at 140 miles from the sea, narrows commence, and continue for 40 miles, through which space the river is generally not more than from 300 to 500 yards wide, and generally confined between rocks. Above the narrows, for about 100 miles, the river again expands to the width of two, three, and even more than four miles, flowing with a current of two or three miles an hour. Higher up, the natives stated to Captain Tuckey, that they knew of no impediment to the continued navigation of the river, and that the only obstruction in its north-east branch was a single ledge of rocks, forming a sort of rapid, over which, however, canoes were able to pass.—(*Narrative of an Expedition to Explore the Zaire, &c.* in 1816.) Of its origin and affluents nothing positive is known. It overflows in the rainy season to the height of 12 feet; and has also risings in the dry season to the height of 7 feet. The banks are clothed with a most luxuriant vegetation. The country is divided into a number of petty states, each governed by a cheou or chief, acknowledging the supremacy of Blindy N'Congo, who resides at Banza-Congo. The Congoese belong to the least favoured race of negroes, and are sunk in the lowest state of degradation and superstition. Their religion is fetishism, with a mixture of Christianity introduced by the Portuguese, and idolatry; but the people are said to be sincere, hospitable, and compassionate.

ANGOLA, DONGO, or AMBONDE extends to the south of Congo, being about 350 miles from E. to W., and 50 or 60 from N. to S. It is properly a part of Congo, from which, however, it has been politically separated since the middle of the 16th century. It is extremely mountainous, being destitute of plains, except on the sea shore, with some small flats on the sides or in the gorges of the mountains. It is extremely well watered; the principal streams are the *Coanza*, *Benga*, and *Danda*, the first and last of which form the southern and northern boundaries of the country. The soil on the coast is sandy but not desert; in the interior, it is rich and productive. The climate is excellent, and the heat temperate. Gold and silver have been discovered in the mountains near the coast; but no gold dust has been found. Iron is plentiful, and copper is also said to exist; lead, sulphur, and petroleum are its principal mineral productions. Every species of tropical vegetation is abundantly produced; and all the animals common to intertropical Africa are found. The people are black, but have few of the negro peculiarities in form or feature; blue eyes and red hair are not uncommon among them. The population is said to be dense. The capital, *St. Paul* or *Loanda*, is said to contain 8000 inhabitants.

The Portuguese established a factory on the coast in 1485, and their power has been constantly extending ever since; they have one establishment 700 miles inland, and exercise great influence over

the numerous petty chieftains among whom the country is parcelled out. The chieftains, however, are all subject to a sort of king, called the Incue. The principal articles of export are ivory and slaves, the latter of which are carried off in great numbers to Brazil.

BENGUELA extends along the coast from the Cowara river to Cape Negro, or from 9° to 16° S. lat., a distance of about 460 miles. It appears to be mountainous, and watered by a great number of streams; and the elevation of some parts of the country is so considerable as to occasion a great degree of cold. Dense forests of cedars, palms, boobash, date-trees, tamarinds, and other tropical trees, with some which belong to the temperate zone, clothe the sides and the tops of the mountains, mixed with vines, bananas, and other species of fruit-trees of the finest quality; but, owing to the indolence of the people, grain is not very abundant. Wild animals are extremely numerous; and also cattle, sheep, and goats. The mountains yield copper, sulphur, petroleum, and crystals. The coast is excessively unhealthy; but the interior is salubrious. The rainy season lasts generally throughout May and June; but it is very irregular, and sometimes no rain falls for three years in succession. The country is chiefly inhabited by petty tribes of independent and very savage barbarians; the most noted of whom are the *Gagas*, *Gigas*, or *Jagas*, a wandering set of robbers, who acknowledge no tribe or nation. They destroy all their own children, and keep up their numbers by stealing others. They are bold and skilful soldiers, but ruthless cannibals, without the slightest idea of art or industry, carrying destruction and desolation to every place they visit. The Portuguese have long had settlements on the coast and in the interior; but their power does not seem to extend far beyond their forts. Their principal settlement is *San Felipe de Benguela*, a small town with a fort in an unhealthy situation, on a bay of the north coast, $12^{\circ} 40'$ S. lat. The rest of the coast to the south of Benguela is a sandy desert without water, scantily peopled, or traversed by the Cimbebas and Damaras.

§ 2. The East Coast.

From Bab-el-Mandeb to Cape Guardafui, the coast extends eastward for about 600 miles, forming the southern border of the Gulf of Aden. This, as well as the country of Ajan, to the south of Cape Guardafui, as far as the river Juba, a little to the south of the equator, has no other distinctive name than *Barra Somaui*, or the land of the Somauiis, a people who live in numerous independent tribes. They are a mild race, of pastoral habits, and confined entirely to the coast, the whole of the interior being occupied by the savage Gallas, and appear to be the descendants of the aborigines of the country, who were early converted to Islam by the Arabs, who traded with them. The north coast, sometimes designated on maps *Adel*, has three towns, which are little visited by Europeans. *Zeila*, a small town of 500 inhabitants, inclosed by ruinous walls, and possessing a shallow harbour; and *Tajurrah*, a mere village, of 70 or 80 wooden huts, but with a capacious harbour, and good anchorage, were recently (1839) subject to the Pasha of Egypt. *Berbera*, *Barbara*, or *Barbareen*, remained unknown in Europe till 1826; it is situate on the coast, 220 miles S.E. of Bab-el-Mandeb, and may be described as a large encampment, rather than a town, the permanent residents, during the hot season, not exceeding 100 families; but from September to April, there is an annual fair or mart, at which sometimes so many as 10,000 people are assembled, who live in tents formed of sticks covered with skins. Their great object is to barter the produce of the inland country for goods brought from Arabia. The chief articles exported are ghee, coffee, sheep, gum, myrrh, ostrich feathers, gold dust, hides, skins, and slaves. Coffee is brought from a distance of 40 days' journey in the interior, and as it forms the principal part of the return cargoes of the vessels, the quantity exported must be very great. The whole trade is in the hands of Banians. Cape Guardafui, named *Ras Asere* by the Arabs, is a bold headland, immediately to the south of which is the *Jebel Jordafun*, a high mountain, from which the European name of the Cape itself seems to be derived.

From Guardafui the coast extends in a south-westerly direction, but with various windings, to the Cape of Good Hope, under the various names of *Ajan* or *Ajen* (Arab *Hazimé*, i.e. the rough ground), *Zanguebar*, subdivided into *Magadoxa*, *Melinda*, *Zanzibar*, and *Quiloa*; *Mozambique* or *Mozambique*; *Sabia*, *Inhambané*, and *Caffraria*. This long sweep of 3000 miles is chiefly occupied by negro tribes in a state of great barbarism: though some of them are numerous, and not quite destitute of arts and industry. Arab colonies are also to be found at various places along the coast. The sovereignty, as far as the river Mozimba, to the south of Cape Delgado, is claimed by the Sultan of Muscat: the remainder, as far at least as Delagoa bay, by the Portuguese; but the only territory which the latter really possess is the Captaincy of the *Rios de Senna*, which contains about 3600 square leagues. The town of the same name is situate on the Zambeze river, in $17^{\circ} 30'$ S. lat., $35^{\circ} 15'$ E. long. This Portuguese territory is traversed by the great river *Zambeze*, which enters the Indian Ocean in lat. 18° S., by five principal channels, named the *Luaboel*, *Luabo*, *Cuama*, and *Quilimane*. Its sources are unknown, but the river is said to be navigable for canoes for 300 leagues. The lower part, however, of its course has been found to be scarcely navigable by larger vessels, even boats, owing to the great rapidity of the current, and the numerous sandbanks with which its bed is choked and divided. It has many considerable affluents; and so great is the rush of the floods from its various mouths, that, four miles from the land, the water is perfectly fresh.—(*Journal R. Geog. Soc. Lond.* 11. 136; 111. 294.) Proceeding along the coast southward from Cape Guardafui, the first place worthy of notice is the peninsula of *Hafon*, which projects a considerable distance seaward, appearing like an inland. *Magadoxa*, or *Mukdesha*, or *Mukdesha*, $2^{\circ} 18'$ S. lat., $45^{\circ} 19' 5''$ E. long., is a considerable town with an imposing appearance, the buildings being considerably large, and of stone, overtopped by four minarets. But these are only tenanted by the dead, the living population being resident in low thatched huts. *Brava*, within the territory of Magadoxa, is also a port of some importance. *Melinda* or *Malcenda*, once a flourishing city, has been totally destroyed by the savage Gallas. *Atombaz*, $4^{\circ} 4' 8''$ S. lat., a town in possession of Arabs, is only a mass of huts, hovels, and ruins. It is situate on a small island on a bay or gulf, which forms, perhaps, one of the most perfect harbours in the world. The island is surrounded by cliffs of madrepore, capable of being rendered, by very little labour, almost impregnable. Farther south are the two large islands of Pemba and Zanzibar. *Pemba* is 30 miles in length by 10 in breadth, and 18 from the mainland; it is low, and rests on a coral foundation, but is covered by a most productive soil, yielding every kind of produce, especially rice, and being in fact the granary of the neighbouring country. *Zanzibar*, 25 miles S. of Pemba, is about twice the size, but resembles it in almost every other respect, producing abundantly grain and sugar; but the climate is unhealthy. They both belong to the Sultan of Muscat. The foreign commerce of Zanzibar is considerable, and almost entirely in the hands of the Americans and English; the Sultan farms out the customs for about £30,000 a-year. *Quilua* (Keelwa) once a large and flourishing city, has now dwindled to a mere village, governed by the Muscatese officers. *Cape Delgado* is situate in $10^{\circ} 40' 29''$ S. lat.; and immediately to the southward is the extensive line of the *Quercimba* Islands, which are all composed of coral, low, of various sizes, and abounding with excellent harbours, which afford perfect security in the heaviest gales.

Within the Portuguese territory, besides Senna, already mentioned, the principal places are:—*Mozambique*, *Quilimane*, *Sigala*, *Inhambané*, and *Bahia de Lourenço Marques* or *Bahia da Ilagoa*. The harbour of *Mozambique* is formed by a deep inlet of the sea $5\frac{1}{2}$ miles broad and 6 long. At the entrance are three small islands, which, together with reefs and shoals, render the anchorage perfectly safe in the worst weather. The islands are formed of coral, and named *Mozambique*, *St.*

George or Goa, and Sanl' Jago or Senna. Mozambique, $15^{\circ} 3' \text{ S. lat. } 40^{\circ} 57' \text{ E. long.}$, contains a considerable but decaying town, with the fort of San Sebastian, which mounts upwards of 80 guns, and is capable of a formidable resistance. It was once a place of great trade; but latterly has been little more than a mart for slaves. The Portuguese jurisdiction on the mainland does not extend 10 miles north and west, and to the south not at all. *Quilimané* is a pretty village on the marshy bank of the north branch of the Zambeze river; but is of some importance as the port of Senna. It is the greatest mart for slaves on the east coast. *Sofala*, the reputed *Ophir* of Scripture, and a place of great historical fame, consists only of a paltry fort, with a few miserable huts, the almost deserted abodes of poverty and vice. *Inhamitanga*, a little to the south of the tropic of Capricorn, is situate at the mouth of a river which forms a superb harbour, navigable eight miles from the entrance. The trade consists principally in ivory and bees-wax. The town is by no means so rich as Quilimané, as, from the small extent of its river, it has not the same facilities for procuring slaves, the source of wealth to the latter place. The natives of the adjoining country are entirely independent of the Portuguese. The Bay of *Lourenço Marques*, named also *Bahia Formosa* (fine bay) and *Bahia da Alagoa*, or, as it is usually written in English, *Delagoa*, is situate in $26^{\circ} \text{ S. lat.}$ It is a large bay, open to the north, but is a secure station for ships in all winds. It receives the waters of four large rivers. The Portuguese settlement consists of a factory and an ill-constructed fort garrisoned by a company of soldiers from Mozambique. It is situate on the north bank of the entrance of the *Rio do Espírito Santo*, opposite the *Ilha da Inhaca*, which forms the northern point of the eastern shore of the bay, terminating with *Cabo Santa Maria* (St. Mary's Cape).—(*Narrative of Voyages to explore the shores of Africa, Arabia, and Madagascar, by Captain W. F. Owen, R.N. Lond. 1833. Narrative of some Voyages by Captain Thomas Botelet, R. N. Lond. 1835. Memoria Estatistica sobre os dominios Portuguezes na Africa Oriental por Sebastião Xavier Botelho Par do Reino. Lisboa, 1835. Particulars of an Expedition up the Zambezi to Senna, &c. in 1823. Journal, R. Geog. Soc. Lond. 11. 136.*)

§ 3. South Africa.*

The name "South Africa," though properly applicable to the whole of that portion of the continent, which lies south of the Equator, is usually restricted by its European possessors to the colonial settlements of the British and Dutch, adjoining the Cape of Good Hope, and to the countries possessed by the various aboriginal tribes with which the colonists have intercourse. In this sense the northern limit may be fixed at the tropic of Capricorn, where the continent has a breadth of nearly 1300 miles, between the Atlantic and the Indian Oceans; while the country extends southwards through nearly 10° , or 600 miles, to the latitude of Cape L'Agulhas; or by a better division, the northern limit may be formed by a diagonal line drawn from Walvisch Bay, on the west coast, to Delagoa Bay on the east coast. Of this region the *Cape Colony* occupies the southern extremity, to the extent of about 600 miles in length, from east to west, with a mean breadth of 230, comprising an area of 130,000 square miles, and having a sea-coast line of about 1120 miles.

GENERAL ASPECT.—South Africa is generally composed of long mountain ridges, extending in a direction nearly parallel to the sea-coast, with intervening plains and valleys, which rise by successive stages to the table-land of the interior. Within the colonial territory these mountains consist of three distinct ranges. The first, named *Lange Kloof*, runs parallel to the south coast, at the distance of from 20 to 60 miles. The second range, named *Zwarte Bergen* (Black Mountains), is considerably higher, and more rugged, consisting often of double and even triple ridges. The belt of land between this range and the former, is nearly equal in width to the low land on the sea-coast, but is at a considerably greater elevation. Beyond another plain of 80 to 100 miles wide, soars the lofty *Nieuweldt Gebirge* (Newland Mountains), the highest range of South Africa; the summits of which are generally covered with snow, being estimated to exceed the elevation of 10,000 feet. Farther north, the country slopes to the Gariep, and the greater part of the region yet explored forms the basin of that great river with its tributaries. The *Nieuweldt Gebirge* are prolonged to the north-west, under the name of *Roggeveldt Bergen*; eastward, they take the name of *Winterbergen* and *Sneuwbergen*; and are farther prolonged to the north-east to an unknown extent, forming, probably, a part of the great range called the Back-bone of the World. The other two ridges are prolonged, in the same manner, to the north-west, and to the north-east, with frequent interruptions, no doubt, but still with sufficient continuity to warrant us in considering the prolongations as portions of the same range. The principal summits of these mountains are: the *Spitzkop* or *Compassberg*, in Graffreynet, 7400 feet high; *Komsberg*, on the border of Beaufort, Clanwilliam, and Worcester, 5100 feet; *Kamiesberg*, in the northern part of Clanwilliam district, 3000 feet; Mr. Martin says from 4000 to 5000; and there is a missionary station within 300 feet of its highest peak. The *Winterberg*, on the eastern frontier, is believed to be the highest in the colony, but its height has not yet been ascertained. The plain between the sea and the *Lange Kloof* is covered with a deep and fertile soil, watered by numerous rivulets, well clothed with grass, and containing a beautiful variety of trees and shrubs. Rains are frequent, and the country enjoys a more mild and equable temperature than the other plains. The plain or terrace, above the *Zwarte Bergen* contains a considerable proportion of well-watered and fertile lands, but these are mixed with large tracts of arid desert, called *karroo*. Above the *Zwarte Bergen*, the third terrace is chiefly occupied by the *Great Karroo*, a vast plain 300 miles long, by nearly 100 broad, which is raised about 3000 feet above the level of the sea, and exhibits every where a hard clayey surface, thinly sprinkled over with sand, but studded with isolated hills, and a few stunted shrubs. The eastern portion, however, of this terrace, along the foot of the *Sneuwbergen*, is a finely watered and hilly tract, affording very rich pasturage in its numerous valleys. To the north of the *Sneuwbergen*, the country gradually becomes more open, and extensive plains spread before the eye, which are covered with wild animals of every kind. The land declines towards the north, with many insulated hills, which rise abruptly, and stand like sugar loaves upon a table. Farther to the north and north-west, along the *Cradoek* river, is an extensive and almost boundless landscape, adorned with natural groves; and opening into extensive plains, covered with long grass, and studded with acacias and in some parts thinly sprinkled with mimosas. Such is the country towards Latakoo, which between that place and Delagoa Bay is described as equally fine. Westward, down the course of the Gariep, the country becomes more and more sterile, and extensive sandy tracts stretch for hundreds of miles on both sides of the river. The country west of the commencement of the *Roggeveldt* mountains, between 29° and $30^{\circ} \text{ S. lat.}$, appears to be a great inclined plain, the first part falling gradually from the *Nieuweldt* ridge to the Gariep; sprinkled over with singular piles of rocks which assume the most grotesque appearances. Still further north, these plains are covered with low brushwood, with here and there beds of salt; and, in one place, a valley of six miles wide occurs, which is entirely composed of naked salt, and appears to be occasionally covered with water. This vast saltpan is sup-

* The usual appellations of the southern part of this region are, *The Cape of Good Hope*, or *The Cape Colony*, the most awkward and inappropriate names that can be given to a large country. It is probably not easy to find another; but it has occurred to us that a good designation might be formed from the Portuguese name of the Cape, slightly modified, namely, **SPERANZA**.

posed to be about 40 miles in circumference; the surface is a fine dry salt, of a brilliant whiteness; and the soil of the country adjoining is composed, in some places, of a sharp gravely decomposed schistus; in others, of a calcareous stratum strewn over with flints. The western part of this desert is prolonged beyond the colonial limit into Namaqualand, which extends along the coast, on both sides of the Gariep, to about 200 miles north of the river, and for the same distance eastward, in which direction it is separated from the Betchuana country by an extensive tract, which is uninhabitable for want of water. The soil of Namaqualand is in general light, sandy, and thinly clothed with tufted grass. Some plains, however, are reported to be much more fertile in pasturage than the rest of the country; and here and there are scattered copious fountains which afford eligible situations for permanent villages.

At the very southern extremity of Africa is the Cape Peninsula, a singular tract about 36 miles long and 8 broad, composed of a broken series of mountains, with flat or conical summits, which are connected by lower gorges, and joined to the continent by a low, flat, sandy isthmus, 20 miles wide, between Table Bay and False Bay. The peninsula may indeed be said to consist of two mountainous tracts, separated by a sandy isthmus between Haut Bay and Fish-hook Bay. Within the peninsula are several remarkable mountains, the heights and names of which are: *Table Mountain*, 3582 feet; *Devil's Peak*, 3315; *Lion's Head*, 2760; *Lion's Rump*, 1143; *Mugzenberg*, 2000; *Elsey Peak*, 1200; *Simon's Berg* or *Signal Hill*, 2500; *Paulusberg*, 1200; *Constantia*, 3200; *Cape Peak*, 1000; *Hanglip Cape*, 1800 feet. Of these the most conspicuous is Table Mountain, the northern front of which, directly facing Cape Town, and rising from the bay like the ruined walls of a gigantic fortress, presents an almost horizontal line of two miles in length, with a plain at the top of about ten acres in extent. In front are two wings, named the *Devil's Peak*, and the *Lion's Head*, which evidently formed, at one time, a continuation of the table, and have their bases still attached to Table Mountain, at a considerable height. The Devil's Peak is broken into irregular points; but the upper part of the Lion's Head is a solid mass of stone, fashioned like a work of art; and resembling it, it is thought, in some points of view, a dome placed on a high conical hill. The flat summit of Table Mountain is occasionally overspread with a mass of white clouds, well known as the *table-cloth*, but the "magnificent apparition dwells only on the mountain's top." This is called the *Table-cloth* by Englishmen, but the French call it *la perruque*, the wig. It commences by a small white or fleecy cloud, which remains for some time stationary over the summit of the Lion's Rump; it then gradually increases until it covers the whole Table, when it becomes a dark grey in the middle, while its edges still remain white. After continuing for some time, it slowly mingles with the atmosphere, until it finally disappears without rain or mist. A strong south-east wind commences immediately after the mountain is completely covered, which often blows in squalls excessively strong, and generally continues for two or three days. It blows very hard through the gap which separates the Table from the Devil's Peak, driving the white clouds in rolling fleeces like wool along the sides of the mountains; ships are frequently torn from their moorings, or bring their anchors home, and are driven out of the bay with all their anchors a-head; but the moment they are outside of the bay, they find nothing more than a single or double-reef breeze. But this phenomenon presents itself only when a strong south-east wind may be expected. Though very rugged, the mountain may be ascended on horseback; the experiment, however, is very dangerous.

Beyond the eastern limits of the British territory, the coast extends in a north-easterly direction to Delagoa Bay. The most southerly portion is possessed by the Caffers, from whom it has received the name of *Caffraria* or *Caffrland*, and forms a tract of country clothed with the finest pasturage, far superior, in general, to that within the colonial boundary. The face of the country evidently improves as it extends farther to the eastward; most of the streams are free from the admixture of saline matter, which is peculiar to those adjacent to, and within the colony, and which renders them not only unpalatable, but in some cases highly injurious. The coast is much colder than that which skirts the colony; but, respecting the country beyond the mountains, nothing accurate is known. It is said, however, to be highly delightful, abounding with wood and water, diversified with ridges and valleys, and clothed with rich herbage. The mountains which separate it from the Betchuana country on the north, and from the Amakasas on the south, are exceedingly rugged, particularly the former range, which is of a very formidable and rugged character, presenting a succession of the most frightful precipices, supporting, like huge buttresses, the inland plains and deserts. The terrace plain between the two ranges, extending from the colonial frontier to the neighbourhood of Natal, a distance of at least 400 miles, and comprising an area of about 21,000 square miles; and even the whole of the country between the mountains and the sea, to a distance of 200 miles beyond the Amapondas, is unoccupied by man: it may therefore be fairly calculated that the waste lands bordering on Caffraria do not fall short of 40,000 square miles. From the Keiskamma to Delagoa Bay, the sea boundary, is one of the most varied and interesting that can possibly be imagined, presenting every diversity that rich hills and fertile meadows can produce; the mountainous range which separates the sea border from the interior is in some places 6000 feet high.—(*Queen's Voyage*, I. 70.) It is within this fine country where there is such ample room for colonists, that the British Governments have been strongly urged to found a settlement at *Port Natal*: where already a number of Dutch boers from the Cape territory have established an independent state. The country is well wooded with large timber, and watered with upwards of 100 rivers and running streams, some of which are larger than the principal rivers of the Cape Colony. The soil is so fertile as to produce three crops of Caffer and Indian corn in the year. The rains are periodical, and the climate is cooler than that of the Cape, and highly salubrious.

The soil throughout the colony is very varied; in some places it consists of a naked sand, in others, of a stiff clay, and in many parts, of a rich dark vegetable mould. Often the surface appears a dry sand, but on digging to the depth of a few inches, a black mould is found beneath; the stiff clayey soil, sometimes red and sometimes yellowish, is very fertile when irrigated. The east coast-border is generally an alluvial loam, as is the case with many valleys, particularly among the ravines and windings of the Fish river. The surface of the great Karroo is diversified: in many places the soil is a stiff brownish coloured clay; in some parts a bed of sandstone, crossed with veins of quartz, and a kind of ponderous ironstone; in others, a heavy sand, with here and there a blackish loam. Near the bed of the Buffalo river the whole face of the country is covered with small fragments of a deep purple-coloured slate, which have been detached from strata of long parallel ridges. Scattered among these fragments are black stones, resembling volcanic slags, or the scoriae of an iron furnace. Conical hills, some of which are truncated, stand detached on the plain, and are composed of alternate layers of earth and sandstone. Some flat sandy marshes of the Karroo are overgrown with rushes, and abound with strong salt springs, contiguous to which a kind of salt wort grows in perfection; the surface around its roots is generally covered with a fine white nitrous powder.

Of *Minerals* few have yet been discovered. Indications of coal have been met with at the Kroom river, and in some other places. Near the Bushman's river, in Uitenhage, an extensive vein of alum has recently been discovered, which is particularly beautiful, very pure, and valuable as an article of commerce. At Cangoes bay a rich galena has been found in the sides of a deep glen, in quartzose sandstone of a yellowish colour, which is easily broken. This ore, when assayed by Major Van Dheer, yielded from 200 pounds weight, 100 pounds of pure lead, and 8 ounces of silver. Mineral waters exist in different places: and there are numerous salt lakes and ponds which supply the colonists with that necessary article. There are also several singular salt-pans, some of which are 200 miles

from the sea, and from 5000 to 6000 feet above its level, covered with hard salt, from 5 to 6 inches thick. The largest and finest of these is near the Zwartkops river, where the soil on all sides of the pan is a deep vegetable earth, resting on a bed of clay, and without a trace of salt in its composition.

Along the east coast are found immense heaps of shells, in various places several hundred feet above the level of the sea, and generally in the greatest quantity in sheltered caverns. At Mossel bay is a cave 300 feet above the sea-level, which contains a large quantity of different kinds of shells peculiar to the coast; and behind Table Mountain, at a similar height, are beds of shells buried under vegetable earth and clay. Seven miles N.E. of Uitenhage, and ten miles from the sea, are immense beds of sea shells, particularly of oysters, the fish of which are petrified.

From the Cape, along the south coast, to Algoa bay, a bank with various soundings projects far out to sea, called the *bank of L'Agulhas*. The extreme point is nearly in the longitude of Cape Vaches, 22° E., and 37° S. lat., about 200 miles from the shore, where it quickly converges, and assumes a narrow conical form, with very deep water at its southern end. It is probably the deposit of the strong current which sets to the south and west, and is generally strongest during the winter months, running with the greatest velocity along the edge of the bank, or a little outside of soundings. When opposed by adverse gales a very high sea is thrown up, which sometimes lessens the strength of the current. By keeping on the edge of the bank a ship will be carried 80 miles a-day, with an adverse wind, round the Cape into the Atlantic; but towards the shore the rapidity of the stream becomes gradually less, and the sea smoother.

CLIMATE.—In respect of heat, the southern portions of this region enjoy a very mild temperature, which seldom rises above 100° of Fahrenheit. In a meteorological register, kept at Capetown, from September 1818 to September 1821, the greatest heat was found to be 96° , the lowest 45° ; the mean annual temperature scarcely 68° ; of winter, 61° , of summer, 89° ; of the warmest month, 79° , of the coldest, 57° . In short, it corresponds as nearly to Funchal, in Madeira, in climate as in latitude, though on the opposite side of the equator. The mean annual temperature is the same, with this difference, that the winters are somewhat colder, and the summers warmer. During summer, which continues from September till the end of March, the wind blows from the south-east, and often with great violence. From March till September the north-west wind prevails, and is accompanied by pleasant weather, or rains, which are almost constant in June and July. In different parts of the country, however, the meteorological phenomena are much varied, according to the direction and height of the mountains. In Albany and the eastern districts, the climate much resembles that of England; the mountain tops are occasionally covered with snow, which, however, rarely falls in the valleys; the winter nights are sharp and clear, while the summer heats are moderated either by the sea breeze, or by the currents of wind which are continually at play among the hills and mountains. The climate, generally speaking, is very salubrious, but the weather is neither steady nor always agreeable; nor is it suitable for agricultural purposes. The deficiency and irregularity of the rains are great drawbacks. In the south-western districts rain, in the cold season, is profuse, but in summer it is of rare occurrence, and then the ground is parched up. In some of the northern tracts bordering on the Great Karroo there is sometimes no rain for three years in succession; and even in more favoured districts the rain, when it does come, falls in torrents, and does great damage. Sometimes the south-east wind is at first, besides being excessively hot, loaded with impalpable sand; but as the breeze continues it gradually cools and becomes supportable.

VEGETABLE PRODUCTIONS.—“The vegetation of South Africa is unique, varied, and beautiful. Indeed, there are so many varieties of plants at the Cape, that when Linnæus received a large number of specimens, he remarked to his correspondent,—‘You have given me the greatest pleasure, but have thrown my whole system into disorder.’” Nowhere can the botanist find a richer and more delightful field for his pursuits than in Southern Africa. The *cræe* or heaths have long been acknowledged pre-eminent in variety and beauty, flourishing equally on stony hills or sandy plains. An endless variety of frutescent or shrubby plants grows in wild luxuriance, some on the hills, some in the deep chasms of the mountains, and others on the sandy isthmus of the Cape; but it is singular that of the numerous *protea*, produced indiscriminately on almost every hill in the colony, the *Protea argentea* is confined to the base of the Table Mountain, and has not been found in any other part of the world. The *Conocarpus* (*Kreupel broom* of the Dutch) grows along the sides of the hills; its bark is used for tanning leather, and its branches serve for firewood. The *Palma-christi* (cascaril plant) and the aloe are every where found in great plenty. The dwarf mulberry flourishes, and the myrica cerifera, from the berries of which a firm and pure wax is procured by simple boiling, is found wild in abundance on the heathy sides of the hills. Avenues of oak (durmast) trees, and plantations of the white poplar, stone-pine, and others are to be seen near most of the country houses. The most valuable trees, however, are the stink wood, a kind of quercus peculiar to South Africa, and the geelhout or yellow wood, both of which are excellently adapted for building, furniture, and all domestic purposes: these trees generally attain a height of 50 feet, with a diameter of 10. There is besides a great variety of other useful timber-trees. In the neighbourhood of Grahamstown the corallo dendron reaches the height of the oak, and in the spring produces large clusters of deep scarlet flowers from a dark velvet calyx. It is scarcely possible to imagine the brilliancy and beauty of its appearance, the whole of its branches being covered with blossoms. What in Britain are considered beautiful specimens of geranium, are here treated as garden weeds; the colonists indeed often form their garden hedges of the ivy-leaved geranium. The Karroo is chiefly covered with varieties of mesembryanthemum, crassula, stapelia, and euphorbia, and with tufts or bunches of wiry grass, which expand widely after rain. Several species of the indigo plant grow wild; the cactus or prickly pear thrives; various species of the cotton plant flourish in the eastern districts; the tea-plant has long been reared in the country, but no attention has been paid to its culture, though the East India Company's monopoly (owing to which it was neglected, and tried to be extirpated) is now abolished. Flax yields two crops in the year, and the tobacco-plant is large and of good quality. Of fruit there is every variety belonging to the tropical and temperate zones: oranges, lemons, citrons, figs, guavas, grapes, melons, pomegranates, shaddocks, quinces, jambos, loquats, peaches, nectarines, pears, apples, plums, mulberries, raspberries, strawberries, gooseberries, almonds, walnuts, chestnuts, hazelnuts, are all large, and of excellent flavour. There are also a great variety of grapes; a large white Persian grape (haenapod or cock's foot) yields a delicious but costly wine; the grapes being fleshy, they are generally reared for the purpose of being converted into raisins. The vine is generally planted at the Cape in rows like gooseberry bushes; in some vineyards, such as Constantia, it is supported on frames, raised a few feet above the ground, or on lofty trellises, along which it spreads in rich luxuriance. On an acre of ground may thus be planted 5000 vines, which will yield 5 leaguers or pipes (560 gallons) of wine. The average wholesale price of the leaguer is 80 shillings. Culinary vegetables of every variety and of the finest quality are grown. The various grains cultivated are now much improved by the introduction of fresh seed from England, India, and Australia; new grasses have been laid down, and the system of turnip husbandry, commenced in the British districts, is extending among the Dutch farmers.

ANIMALS.—In Southern Africa are found some of the largest and also some of the smallest members of the animal kingdom. Among the beasts are the elephant, weighing 4000 lbs, and the black streaked mouse, only a quarter of an ounce; the giraffe, 17 feet high, and the elegant zenik or viverra,

only three inches; the ostrich, 6 feet high, and the creeper, a bird about the size of a cherry. Of the thirty species of antelopes known in natural history, Southern Africa contains eighteen; besides which, there is the largest of the eland or orcas, 6 feet high, together with the pigmy or royal antelope, which is little more than 6 inches. The springbok or leaping antelope is met with in herds of 4000 or 5000. The lion, the leopard, the panther, and various species of the tiger cat are indigenous. The wolf, the hyæna, and three or four different kinds of jackal are every where found; as also the ant-eater, the ironhog or crested porcupine, the viverra, the jerboa, and several species of the hare. Buffaloes are numerous in the woods and thickets; and many of the plains abound with zebras, quaggas, and gnus. In the mountains there are large troops of the dog-faced baboon, and swarms of apes and monkeys of all sizes. Of the lion there are two varieties, the yellow, and the brown or black, of which the latter is the stronger and fiercer. Indeed, the strength of this species is prodigious, there being well authenticated accounts to prove that one can carry off an ox or a horse with nearly as great ease as a fox carries a goose. Elephants are met with in the eastern districts, and are more numerous as the country advances eastward. There are also two distinct species of the double-horned rhinoceros; and hippotamuses are numerous to the eastward, and as large as those of the Upper Nile. Birds exist in great variety; ostriches are numerous: the secretary bird (*falco serpentarius*) is peculiar to the Cape; it is the inveterate enemy of snakes, and on that account much cherished. Eagles, vultures, kites, pelicans, flamingoes, cranes, spoonbills, ibises, wild geese, ducks, teal, snipes, bustards, partridges, turtle-doves, thrushes, and humming birds of every sort are found in abundance. Many other beautiful and curious birds might be mentioned, but we have only room to notice two of peculiar character. The locust-bird, a species of thrush, congregates in places where locusts migrate, and feeds upon the larvæ of the insect. In 1828, Albany was overflowed, and almost every vegetable substance consumed by locusts; but in a short time these were followed by myriads of locust-birds, which speedily cleared them off. The honey-bird, which is rather larger than a sparrow, is used by the natives for a singular purpose. When the Hottentots are in want of wild honey they go to a place which they think likely to contain the hives, and by a kind of whistle summon the honey-bird, which is always lurking in the neighbourhood. The bird soon appears, and actually guides the hunter to the very spot where the honey is deposited; he then takes his station on a bush, and waits till the honey is secured, when he becomes possessor of the vacant nest, and the share of the spoil which is invariably left for him. When the bird has eaten his fill, the hive is again closed with stones to prevent the badger from destroying the young bees; and, as there is always a plentiful supply of flowers, the bees, however often robbed, never suffer from hunger, nor do they sting unless when hurt. Ants are very numerous; but the visitations of the locust are now rare. Reptiles are not numerous; snakes are found, but few accidents from them occur. The boa constrictor of a large size has been killed near Natal, and also a new species of alligator; large crocodiles have been seen at Delagoa Bay. Fish are extremely abundant, and of every kind, in the bays and along the coasts. During the winter season, whales, porpoises, and sharks enter the bays, and seals and penguins frequent various parts of the coast.

Of domestic animals, the colonists possess those of Europe in abundance. The Cape horse is not generally large, but it is very hardy. The ox is large and clumsy, in consequence of his wide branching horns and great limbs, and is of considerable strength. A stall-fed Cape ox weighs from 800 to 900 lbs. Dutch without the offal; the beef is excellent, if the animal has not been driven far without food across the Karroo. The Cape sheep are long-legged, small-bodied, thin in front, and have all their fat collected upon the tail and the hind part of the thigh. The tail is short, flat, naked on the under side, and weighs from 6 to 12 lbs. The fat when melted is like a vegetable oil, and is used by the Dutch as a substitute for butter, and by the English for making soap. The general weight of the sheep is from 40 to 60 lbs; the wool, if it may be so called, is a strong frizzled hair, which drops off in September and October, and is scarcely fit even for stuffing cushions. Merinos are now becoming extensively introduced. The Namaquas possess the handsomest and most vigorous breeds of domestic animals in Southern Africa. The oxen are equally strong as those of the colony, but are trained into three different classes; beasts of burden or draught, saddle oxen, and war oxen. The saddle oxen are much superior to the horse in supporting fatigue, but are inferior in swiftness. The war oxen seem peculiar to this nation. They are chosen from the most savage and ungovernable, and, being driven against the enemy, rush on them like wild bulls; they will even attack wild beasts.

PEOPLE. — Of the white inhabitants of the colony, the most numerous are the original European settlers, or their descendants, termed *Afrianders*, and consist chiefly of Dutch, with a small intermixture of French Protestant refugees who left their country after the revocation of the edict of Nantes. In physical structure the Cape Dutchmen are a fine race; in some districts their stature and strength are gigantic; particularly on the frontiers, where little vegetable food is consumed, and where mutton stewed in sheep's-tail fat is the principal food throughout the year. In mental attainments they are by no means deficient, when they are educated in youth, and when a proper stimulus is given to the development of their talents. In the interior of the country corpulence is one of the chief beauties of a Dutch housewife; and the men are distinguished alike for their hospitality and bravery. Those who live by grazing, termed *Vee Boers*, are now the most numerous, and, probably, the wealthiest class. A numerous colony of British settlers was established in Uitenhage, Somerset, and Albany, on the eastern frontier of the colony in 1820. The other British colonists are principally confined to Capetown, or engaged in trade at different stations. Their character is similar to that observed in other colonies; shrewd, generally intelligent, attached to political liberty, careful of preserving it, hospitable, and enterprising.

The liberated slaves form the next most numerous class. They amount to 35,000, and may be divided into three classes: Malays, Negroes, and *Afrianders*; the last being a mixed race, descended from a European man and a Malay or Negro woman. These classes keep themselves perfectly distinct, and will not intermarry. Many of them are nominally Christians; but the prevailing creed of the Malays is Islam.

The *Hottentots*, the aborigines of the country, are the next in number, but the least in importance and social worth, in the opinion of many of the colonists. At present, after two centuries of oppression, they probably do not amount to 30,000. When young they are clean-limbed, and well proportioned; with joints, hands, and feet remarkably small. In some the nose is flat, in others it is raised; the eyes are of a deep chestnut colour, very long, narrow, and distant from each other. The eyelids are rounded into each other exactly like those of the Chinese. Their complexion is a clear olive or yellowish brown; and the hair of the head grows in hard, knotted tufts, and when left to grow, hangs on the neck in hard twisted, fringe-like tassels. Their cheek bones are high and prominent, forming with a narrow pointed chin nearly a triangle; their teeth are small, and exquisitely enamelled. The tending of cattle is their principal occupation in the colony; and for this purpose they hire themselves to the farmers. Some are employed as waggon-drivers, in which capacity they are very skilful, driving sometimes eight horses with perfect ease, over bad roads, avoiding every hole and rut, and going at a smart gallop. Their fidelity and honesty, when well treated, entitle them to rank with any Europeans. Their habits of life, however, are filthy and slovenly. Their villages, or kraals, form a confused mass of little conical huts, reared of twigs and earth, and so low that the inmates cannot stand upright. They carry on various little manufactures, such as tanning and dressing skins, form-

ing mats of flags and bulrushes, bowstrings from the sinews of animals, and even moulding iron into knives. A number of them were, a few years ago, located by Government at the Kat river, on the border of Cafferland, and have conducted themselves in the most satisfactory manner. The colony consists entirely of coloured people, a mixture of Hottentots and Bastards, about 3000 in number, and have shewn themselves worthy of the liberal treatment they have received. They have gallantly beaten off the Caffers, industriously cultivated the ground, and have now many thousands of horses, cattle, and sheep, thus proving that they are not so degraded as they have been represented. Several varieties of the Hottentot race exist on the skirts of the colony, under the names of Korannas Bosjesmans, Namaquas, Damaras, and Griquas or Bastards.

The *Korannas* or *Koras* are a nomadic people of mild character, occupying the country along the banks of the Gariep, and are divided into a number of independent tribes. They appear to be a mixture between the Hottentots and the Caffers. They dress in sheep-skins, and their food consists of curdled milk, supplied by their cows, which they seldom or never kill; aided by berries, roots, locusts, and game. A wild superstition supplies the place of religion.

The *Bosjesmans* or *Bushmen*, probably the aborigines of South Africa, are now reduced to a very small number. They are short in stature, but well made; of an olive colour, resembling the hue of a faded beech-leaf; their eyes are very small, deep-seated, roguish, and twinkling incessantly; their lips thick and projecting; and their nose small and depressed. In cold weather a skin is used for covering, and a mat, placed on two sticks over a hole in the earth, serves as a house. Their weapon is a poisoned arrow, which inflicts a certain and speedy death. They are adepts in stealing cattle and sheep; and consequently many of the Dutch border farmers used to hunt them like wild beasts, and even to boast of the number they had killed. Their language seems to consist of a collection of disagreeable hissing sounds, all more or less nasal; but in general they understand a little Dutch. Sorcerers exist among them, and they seem to have a name for the Supreme Being; but of their religion it is difficult to obtain information. All efforts to preserve the remnant of the Bushmen seem to be abortive. They are to be found chiefly between the Gariep and the northern borders of the colony.

The *Namaquas* are a pastoral people inhabiting the country on both sides of the Gariep towards the sea-coast. They differ little from the Korannas in their habits; like them they live chiefly on milk, and lead a migratory life. Their country is, for the most part, an extensive plain; the climate is hot and dry, and the thermometer, in the summer months rises so high as 120° Fahrenheit.

The *Damaras* dwell along the coast, to the north of Namaqualand, and by some travellers are believed to be of the Caffer race. Their country is considered fertile; they grow various kinds of pulse; but flocks and herds form their principal wealth. They manufacture copper ornaments of a rude kind; and are associated in large villages, which are substantially built. Their weapons are the bow and arrow and the assegais.

The *Griquas* are spread along the banks of the Gariep, about the middle of its course, for 700 miles, and are in number from 15,000 to 20,000, of whom about 5000 are armed with muskets. They are a mixed race, produced by the intercourse of Dutchmen with Hottentot women, on which account the Dutch colonists call them *Bastards*. They evince a bold, warlike, and industrious disposition; possess numerous flocks and herds, with many excellent horses. Their principal settlement is at *Griquatown* or *Klaarwater* (40 miles N.E. of Capetown), where the elders of the people reside, and conduct the affairs of the tribe, aided by two or three excellent missionaries, who are, in Southern Africa, the pioneers of civilization.

The *Caffers*, *Kaffirs*, or *Cafres* live along the coast to the east of the colony, and extend to a considerable distance inland. Kafir or Infidel is a term of reproach applied to all the people of Southern Africa by the Moslem inhabitants farther north. They have themselves no general name, and do not form one political community; but are divided into races and tribes, known by the various names of Amakosas or Amaxosas, Amatembous, Amapondas, Amazoulah, and Tambookies. They are supposed to be of Arabian descent; but have no records of their origin. With the exception of the woolly hair, the Caffers have no resemblance to the Hottentots or negroes; for, though their colour is a dark brown, nearly black, yet their features are regular, with an Asiatic cast, and their forms symmetrical; the men, in particular, being of a fair average height, and extremely well proportioned. The head is not, generally, longer than that of a European; the frontal and the occipital bones form nearly semicircles; and the profile of the face is, in some instances, as finely rounded and as convex as that of a Greek or Roman. The women are of short stature, very strong-limbed and muscular; and they attribute the keeping up of the standard of the men, to their frequent intermarriages with strangers, whom they purchase of the neighbouring tribes; the barter of cattle for young women forming one of the principal articles of their trade. They are remarkably cheerful, frank, and animated, place implicit confidence in visitors, and use every means to entertain them. In the warm season they prefer a state of nudity, with a scanty apron; but in winter they use cloaks of wild beast skins admirably carried. Their arms are javelins, short clubs, and large shields of buffalo hides; but their intestine wars, which often arise about disputed pasture-ground, are generally decided without much bloodshed. They never wear a covering for the head even in the hottest weather, and seldom use any kind of shoes, unless during a long journey, when they strap a kind of leather sole to the foot. Both sexes have their bodies tattooed, especially on the shoulders; and young men who wish to pass for dandies, paint their skins red, and curl their hair into small distinct knots like peas. They have no towns; but their kraals or villages generally consist of about a dozen of huts, like those of the Korannas; in these, however, they spend little of their time; for the climate is so fine that they live chiefly in the open air, and it is only at night, or in bad weather, or during sickness, that they remain within doors. The sites of the villages and the cattle folds are chosen with reference to the pasture grounds, as the increase and maintenance of their herds and flocks seem to be their only and unceasing care. Their diet is very simple, consisting principally of milk in a sour curdled state. Horses have been lately introduced among them; sheep and goats have also multiplied exceedingly. No regular system of idolatry exists among them; but they are much addicted to sorcery, spells, and charms, and some scattered traces may even be found of the remains of religious institutions. The men are brave and warlike, but seldom engage in war; their principal occupation is that of herdsmen, in which they cannot be excelled. Their government is that of hereditary chieftains, who are legislators as well as judges; but they assemble, occasionally, the elders of the tribes as a kind of jury, and also permit them a voice in their decisions. Their laws are few, simple, and easily understood. Murder, adultery, sorcery, and theft are the most frequent crimes; but murder is seldom punished with death, the murderer being generally fined in proportion to the importance of the person slain. Polygamy is allowed. The Caffer tribes may now be considered as divided into six great divisions; viz., the Manibookies or Amapondas; the Tambookies or Amatembous; the Amakosas, in four divisions, under 1. Hintza, or his successors; 2. Gaika; 3. T'slambie; 4. Pato, Kama, and Cobus; and their numbers previously to the last war with the colonists were reckoned about 395,000.

The *Betchuanas*, who inhabit the country to the north of the Gariep, are superior to the Caffers in arts and civilization. They have large towns; their houses are well built, and remarkable for neatness; they cultivate the ground, and store the grain for winter consumption. Their features are more European than those of the Caffers, and often beautiful; their complexion is a brightish brown. Proceeding north-eastward, the traveller finds industry and civilization increasing at every step, and beyond the Murutsi, the last of the Betchuana tribes, are the *Maquainas*, a numerous and powerful

nation, equalling the Murutsi in industry, and far surpassing them in wealth and numbers. They are known to all the southern tribes, as the people from whom all other nations receive their iron and copper wares. All, indeed, of the South African tribes to the south of Inhamban habitually regard each other as members of the same family; they are, as they express it, one people, and, unless when war disturbs their harmony, mingle together without fear or mistrust. The industrious tribes of the interior are not insensible to gain; the mercantile character is fully developed among them; and they think of nothing, says Mr. Campbell, but beads and cattle. Their trade may be traced from Delagoa Bay on the eastern, to Whale-fish Bay on the western coast; and from Litakoo northwards to the Zambeze. The most southern tribe of the Betchuanas is the *Eatclap*, whose chief town is *Litakoo* or *Latakoo*, situate about $27^{\circ} 6'$ S. lat., $24^{\circ} 40'$ E. long., with a population variously estimated at from 4000 to 10,000. Its situation, however, has been several times changed within the present century; and *Kruman*, or *New Litakoo*, is the principal missionary station. Eastward from the *Eatclap* are the *Tammahas*, whose chief town is *Mashow*, 190 miles, or thereabouts, E.N.E. from *Litakoo*, and containing about 10,000 or 12,000 inhabitants. North-east of the *Tammahas* are the *Murutsi*, whose chief town is *Kurrichane*, about four times the size of *Litakoo*. West or north-west of the *Murutsi* are the *Wankitsi*.

The *Zoolahs*, who live to the south-westward of Delagoa Bay, and round Port Natal, are a remarkably neat, intelligent, and industrious people, rich in cattle, cultivating a fine country, and inhabiting large towns. They were originally few in number; but have spread their conquests over a large territory, and now form a nation composed of all kinds of tribes. They are, generally speaking, of a more ferocious character than the southern Caffers, and also more powerful; but there is now a desert tract of 180 miles interposed between the *Zoolahs* and the *Amapondas*. Of late years, however, a great number of Dutch boers or farmers, discontented with the British government of the colony, have passed the frontiers to the north-east, and, after fighting their way through the intervening tribes, have established themselves, as an independent people, in the country of the *Zoolahs*, at Port Natal. Their chief town is *Pietermaritzburg*.

TERRITORIAL DIVISION OF THE CAPE COLONY.—The colonial territory is divided into two provinces, named the Western and the Eastern, the latter of which is under the charge of a lieutenant-governor. These provinces are subdivided into districts, as stated in the following Table:—

Provinces.	Districts.	Area in sq. miles.	White Population.	Black Population.	Total Population.	Chief Towns.
Western.	Capetown,	9½	14,041	5,702	19,743	Capetown.
	Cape District, ..	3,584	8,270	4,910	13,180	Simon'stown.
	Stellenbosch, ..	2,280	7,120	9,858	17,884	Stellenbosch.
	Worcester,	24,100	6,025	3,489	9,514	Worcester.
	Clanwilliam, ..	18,011	7,000	1,015	8,015	Clanwilliam.
	Swellendam, ..	9,000	13,346	3,314	21,859	Swellendam.
	Beaufort,	20,000	2,916	2,872	5,908	Beaufort.
Eastern.	George,	4,545	3,676	4,517	9,193	Georgetown.
	Colesberg,		2,100	—	2,100	Colesberg.
	Albany,	1,792	11,500	228	11,728	Bathurst.
	Somerset,	7,168	11,900	1,760	13,660	Somerset.
	Graffeynet,	22,000	7,531	7,407	14,938	Graffeynet.
	Uitenhage,	9,000	4,628	6,391	11,019	Uitenhage.
			100,053	51,463	158,741	

GOVERNMENT.—The affairs of the colony are administered by a Governor, who resides at Capetown, aided by an executive council, which is composed of the Commander of the Forces, the Chief Justice, the Auditor-General, Treasurer, Accountant-General, and Secretary to Government. There is also a legislative council, appointed by the British Home Government. The eastern districts have been lately placed under the superintendence of a Commissioner-General, who resides at Uitenhage. Each district or drostdy has a civil commissioner, who acts also as a resident magistrate, and is aided by a number of unpaid justices of peace: a district is subdivided into a number of smaller divisions called *veldt-cornettes*, over each of which a *veldt-cornet*, a sort of petty magistrate, presides. He receives no salary, but is exempt from all direct taxes.

When the Cape became a British colony the Dutch civil and criminal laws were in operation; but these, particularly the latter, have undergone considerable modification. The laws are administered by a supreme court, consisting of one Chief and two Puisne Justices; and for the better execution of the law, sheriffs and deputy-sheriffs of districts have been appointed since 1828.

RELIGION.—There is a variety of creeds among the Christian part of the population; the most numerous body being the Calvinists or adherents of the Dutch Reformed church. Missionary societies have also been long labouring in the attempt to convert the Hottentots and Caffers, and in some places have met with considerable success. The South African Missionary Society confines itself to Capetown; the London Missionary Society has stations at Capetown, the Paarl, Tulbagh, Bosjesveldt, Zuurbraak, Pacaltsdorp, Hankey, Uitenhage, Bethelsdorp, Port-Elizabeth, Theopolis, Grahamstown, Graffeynet, Kat river, Buffalo river, Cafferland, Philipolis, Bushman station on the Caledon river, Griquatown, Betchuana Mission, New Litakoo, Komaggas in Namaqualand, and Steinkoff. These stations employ 32 missionaries or pastors with several schoolmasters and assistant teachers. The Wesleyan missionaries are stationed at Capetown, Kamiesberg, and in Great Namaqualand, Grahams-town, Salem, Bathurst, and Port-Francis in Albany district, and among the Caffers and Betchuanas. The Moravians have stations at Gnadenhal, Groenenkloof, Enon, Hemelenarde, Elim and Shiloh, which employ 39 missionaries.

STAPLE PRODUCTS.—Corn, wine, wool, provisions, oil, aloes, and fruits are the staples of this fine colony; but many other articles are either produced in the colony or obtained from the neighbouring nations. There is an annual exportation of corn to a considerable amount, which brings, as flour, a higher price at the Mauritius and other markets than the best American. Barley, oats, and Indian corn thrive well; the last is admirably adapted for fattening swine, the export of which, in the shape of hams, bacon, and salt pork, is yearly increasing. Two crops of potatoes are raised during the year, which are of a succulent yet mealy quality; and the nutritive property of every article of provision is abundantly exemplified in the fat and healthy appearance of the people. Wine has long been a staple export. The culture of the vine was introduced by the French Protestant refugees, and wherever the quality has been attended to, the wine produced is equal to that prepared in any other part of the world; but the vine growers have unfortunately been hitherto more attentive to the quantity than the quality of their wines, so that they are of very little repute in the European markets; and the reduction of duty on foreign wines imported into Britain since 1825, has almost ruined the Cape wine-trade. Constantia, near Capetown, was long celebrated for a peculiar and excellent wine. Wool will, in time, be one of

the greatest and most profitable staples of the colony. The colonists are now actively engaged in endeavouring to change their coarse woolled, or rather hairy sheep for the fine and pure breed of that animal, whose numbers now exceed 50,000. The settlers in Albany have taken the lead, and have imported Saxon and Morino rams from England and Australia. The fineness of the climate, which renders winter provender unnecessary, and the great extent of upland soil and park-like downs, with the numerous salsola and saline plants, so well adapted to prevent the fuke or rot, shew the adaptation of the colony for a vast sheepfold, capable of supplying an almost indefinite quantity of the finest wool. Hides and horns are rapidly increasing as a staple, and the quantity of ivory, ostrich feathers, gums, and other articles procured from the native tribes, have proved a valuable branch of commerce. Horses for India, live stock for the Mauritius and other places are also staple exports. Aloe juice is exported in considerable quantity; dried fruits, as apples, apricots, paeles, pears, &c., have been long in great demand. Raisins are exported to New South Wales, Mauritius, and England. The fisheries have not yet been sufficiently attended to. During the calving season whales come into every bay on the coast, and thus in some years a considerable number of them are taken; but there have been no vessels fitted out for whale-fishing along the coast, or among the islands to the northward of Madagascar, where the sperm whale abounds. The principal trade is with Britain; the largest portion of it is carried on at Table Bay; and the annual value of the commerce of the colony may be estimated at upwards of half a million sterling.

INTERNAL COMMUNICATIONS.—There are few roads; and the communication throughout the country is almost entirely obstructed by the numerous mountain ranges, the *kloofs* or passes of which are tremendous. A comparatively easy access from Capetown is to be found only by the small strip of land between the western coast and the mountains of the Cape and Stellenbosch districts, while the districts of Clanwilliam, Worcester, Beaufort, and Graffreinet, to say nothing of Somerset, are in a manner shut out by the difficulties which the mountains present. To surmount the great barrier between the Cape peninsula and the eastern districts, two works have recently been undertaken and completed to the incalculable advantage of the colony. The first is a splendid mountain road through French Hoek Pass; and the second, called Sir Lowry's Pass, was executed by order of the Governor, Sir G. L. Cole, in 1830; farther east this road passes through the Houw Hoek Pass, from which there is an excellent natural path as far as the village of George, 300 miles from Capetown. The French Hoek Pass leads to Worcester; but the roads beyond it are extremely bad, and could be improved only at an enormous expense. Every one who has read Barrow, Burchell, or other travellers of note, must have been appalled at the very description of the ascent or descent of a waggon by the old Tottentot Holland Kloof, and will feel pleasure in learning that it may now be passed at a brisk trot over as good a road as any in England. Indeed, but for the mountain passes the communications throughout the country would be easy, for, with the exception of a few sandy spots of considerable extent, the surface of the ground presents a good hard bottom covered with a crust of ironstone gravel, over which travelling may be performed at the rate of six miles an hour on horseback, from five to five and a half in a horse waggon, and three in a waggon drawn by oxen.—(*On the Roads and Kloofs in the Cape Colony, by Major C. C. Mitchell, Surveyor-General. Journal R. Geog. Soc. Lond. VI. 168.*)

RIVERS.—The **GARIEP** or **GAREEP*** (Great River) has its principal sources in the mountains, to the north-westward of Port Natal, and is formed by the union of two great branches, the *Nu* (black) *Gariap*, and *Ky* (yellow) *Gariap*, which meet a little to the south of 29° S. lat., and the east of 21° E. long. The *Nu-Gariap* has its origin at the head of a long valley, which is formed between the Blue Mountains and the Maritime Chain, 70 miles N. of Port Natal; and, after a course of about 300 miles to the south-west, is joined by the *Caledon*, which rises on the opposite or northern side of the same mountains. The *Ky-Gariap* rises among the mountains, about 27° S. lat., and between 29° and 30° E. long.; but its principal affluent, the *Donkin*, seems to have its sources near those of the *Nu-Gariap* and the *Caledon*. From the point of confluence the united stream of the *Gariap* flows westward, entering the Atlantic Ocean, in lat. $28^{\circ} 33'$ S. long. $16^{\circ} 30'$ E. Its mouth is so barred with sand as to be scarcely accessible for boats, and its course for several hundred miles is obstructed by numerous falls and rapids; and, from Griqua town almost to the ocean, a distance of 500 miles, it is accompanied on its northern bank by a parallel ridge of mountains. In 22° E. long. a great rapid is formed between the mountains which approach on both sides, where the river forces its passage between the hills, arched over to a considerable extent by immense cliffs; and the roar of the water can be distinctly heard at the distance of many miles. Another magnificent fall occurs at $29^{\circ} 30'$ E., where the river is hurried over a rock 400 feet in height, its breadth, which above is from 500 to 600 yards, being narrowed to a space of scarcely 100 feet. This was named *King George's Cataract* by Mr. Thomson, who discovered it in 1824. Besides the *Caledon* and the *Donkin*, the other principal affluents are the *Great Fish River*, which drains the northern slopes of the Middle Roggeveld, and joins the *Gariap* near 21° E. long.; the *Brok*; the *Zeekoe* or *Sea-cow river*; and the *Hart* or *Malabaren*.

The *Olifant's* (Elephant's) *River* flows in a northerly direction, along the foot of the western mountains, and falls into the Atlantic in $31^{\circ} 33'$ S. lat. It is the only river of the colony which is navigable with boats for more than 30 miles from the sea, to which distance it is affected by the tide. The mouth is barred by a reef of rocks and a sandbank, which leave between them a channel always open, and through which whale-boats enter for water and provisions. The *Berg* or mountain river falls into St. Helena Bay. The *Brede* river falls into St. Sebastian's Bay, where it is nearly a mile wide at its mouth. The *Gauritz*, formed by two branches, the Big and the Little *Ganka*, rises in the Nieuveltd mountains, and flows into the Southern Ocean, between the districts of Swellendam and George. Its principal affluents are the *Buffel's* (Buffalo), the *Fouw*, and the *Olifant*. The *Camtoos*, formed by the union of the *Kareeka* and the *Zout* (Salt), flows through Uitenhage. The *Zwartkops*, a few miles farther east in the same district, is a stream which may be considerably improved for the purposes of navigation and trade. Uitenhage also contains the *Sunday*, *Kromme*, and *Bushman's* rivers, none of which are navigable. In Albany are the *Karrega*, the *Kassuga*, the *Kowie*, which falls into Port-Francis, and the *Great Fish River*. The course of this last stream is not yet perfectly explored, particularly towards its source, which is 200 miles from the ocean. Its numerous branches spring from the Sneuwberg, and other mountains farther east; its upper course is extremely winding, amidst stupendous mountains and precipices; but below its last great bend at the Trompetter Drift (Trumpeter's Ford), it flows in a direct line to the sea. Its mouth has a bar on which the surf breaks high, but within this, the river expands into a magnificent sheet of water, extending 8 or 10 miles into the country, and is wide and deep enough to afford anchorage to a large fleet. Its principal affluents are the *Little Fish*, *Kunap*, and *Kat* rivers. The *Keiskamma* forms the eastern border of the district of Albany, separating it from Cafferland.

BAYS, GULFS, &c.—*Donkin's Bay* and *Lambert's Cove*, on Clanwilliam coast. *St. Helena Bay*,

* The Dutch colonists called this the *Orange River*; but we have chosen to drop that name, because, however appropriate it may be in the mouths of Dutchmen, *orange* is in English the name of a colour, and, when given to a river, as in this case, is very apt to convey the false notion that the water is of that colour. The native name is much better, and should be decidedly preferred.

situate at the north end of Cape district, is a large semicircular bay, with a ~~large~~ anchorage, and well sheltered from the south and east, but exposed to the north. Its mouth is ~~2~~ leagues wide, and the bay is 4 leagues deep, with regular soundings from 20 to 4 fathoms towards the southern shore. *Saldanha Bay*, one of the best and most commodious harbours in the world, is situate in $38^{\circ} 8' S.$ lat., $17^{\circ} 55' E.$ long. It extends about 25 miles from S.E. to N.W., with a comparatively narrow entrance, not quite 3 miles wide, which is forced through a ridge of hills, and on the north-west side, is divided into two channels, by either of which it may be safely entered. It affords at all seasons very excellent shelter and anchorage. *Table Bay* is situate at the north end of the Cape peninsula, and opens to the north-west. It affords secure shelter from September till May, and is the chief naval station at the Cape during that portion of the year. *Hout Bay* and *Chapman's Bay*, two small openings on the west side of the peninsula. *False Bay* is a large and nearly square gulf, about 30 miles deep and as many wide, opening to the south, and forming the south-east side of the Cape Peninsula, and south side of its isthmus. On its west side is *Simon's Bay*, the naval station during the winter months. *Mossel Bay* and *Plettenberg Bay*, are both in George district; the former is, next to Simon's Bay, one of the safest havens to the east of the Cape, and is capable of receiving vessels of every kind; the latter, 40 miles from the Cape, is equally safe, eligible, and commodious, affording safe anchorage in 8, 9, and 10 fathoms water, particularly during strong N.W. gales. The fine harbour of the *Knysna*, a little to the west of Plettenberg's Bay, would contain fifty large ships secure from all winds, but the entrance is narrow and intricate. *Algoa Bay* includes all the coast between Capes Recife and Padrao, and is the chief haven of the eastern districts, one of the winter harbours of the colony, and a free port. It opens widely to the south-east, but during winter (from 1st April to 1st September) the wind scarcely ever blows from that quarter; in some seasons, however, the surf rolls in with great violence. *Port Natal*, on the east coast of Caffreland, in $29^{\circ} 55' S.$ lat. and $31^{\circ} 24' E.$ long., is an exceedingly fine harbour, but the entrance is narrow, and contains a bar of shifting sand. There are, however, 6 feet water on the bar, with a run of 6 feet, and at spring tides 14 feet of water. *Delagoa*, or correctly, *Algoa Bay* (*Bahia da Algoa*), called also by the Portuguese *Bahia de Lorenzo Marques*, and *Bahia Formosa*, is a large bay opening widely to the north-east, between $2^{\circ} 31'$ and $26^{\circ} 22' S.$ lat. The south-east side is formed by a long peninsula or jutland, terminated by the islands called the Great and Little Inyak.

ISLANDS.—*Robben or Penguin Island*, at the mouth of Table Bay, 5 miles N. of Green Point, is six miles in circumference, with sunken rocks and breakers along its west and south sides. But there is no danger for more than two cables' length from the island, except from a sunken rock called the *Whale*, which is a mile to the southward. The island contains several springs of good water, and produces a few grapes and culinary vegetables. It is a great resort of penguins and quails during their breeding season, and a depot for convicts, who are employed in quarrying limestone and excellent blue flags streaked with white, which are used in Capetown. *Dassen or Concy Island*, 10 leagues N. and W. of Green Point, and 8 to the southward of the entrance of Saldanha Bay, is about 6 miles in circumference, with little elevation and a sandy surface. The shore is foul and dangerous on the south and west sides, but bold and clear of danger on the north and east, where good anchorage may be found close to the land. The passage between the island and the mainland is entirely free of danger two cables' length from either shore. Its only inhabitants are penguins and gannets. *Seal Island*, and *Noah's Ark*, are in False Bay. *St. Cruz Isles*, *Bird Islands* or *Chaos*, and *Doddington Rock*, in Algoa Bay. The *Chaos* are rendered famous by their being the termination of the voyage of Diaz, in 1486, who got thus far eastward without seeing the Cape; the *Doddington Rock*, which lies 3 miles S. from the *Chaos*, is so named from the *Doddington* Indian having been wrecked upon it in the year 1755. *Inyack* lies on the east side, and *Shifteen Islands* on the west side of the mouth of Delagoa Bay.

CAPIES.—The CAPE OF GOOD HOPE is the south-western extremity of Africa, and is situate in $31^{\circ} 23' 10' S.$ lat. and $18^{\circ} 32' 25' E.$ long. It is formed by a peak 1000 feet high covered with piles of huge stones, loosely thrown together as if giants had been at play, and presents a perpendicular cliff to the ocean. *Cape L'Azulhas* (Needle Cape) is however the most southern point of the continent, projecting as far south as $34^{\circ} 52' S.$ lat, a little to the west of $20^{\circ} E.$ long. *Green Point* is the western extremity of Table Bay, on which a lighthouse was erected in 1823, two miles N.W. from Capetown. *Cape Hanglip*, the south-east point of False Bay. *Cape Recife*, a long and low spit of rocks and sandhills, forms the south-western point of Algoa Bay. *Cape Fiol* in Caffreland, $28^{\circ} 9' S.$ lat. *Cape Voller*, about six miles to the S. of the mouth of the Gariep, in $28^{\circ} 27' 30' S.$ lat., $16^{\circ} 17' E.$ long., is a high bluff point, with rocks running about half a mile out to sea, beyond which there is no danger. *Cape Padrao* or *Padrao*, at the east side of Algoa Bay, is so called from its having had a pillar erected upon it by Bartholomew Diaz in 1486. *Cape Inyack* or Cape St. Mary, the south-east point of Delagoa Bay.

TOWNS, &c.—CAPETOWN (KAAPSTAD of the Dutch) is situate on the south side of Table Bay, at the foot of Table Mountain, on a plain which rises with an easy ascent. It is regularly built, with straight and parallel streets, crossing each other at right angles, and shaded with elm or oak trees. The houses are mostly of red-brick or stone, of a good size, and generally have a stoup or terrace before the door, shaded with trees, beneath which the inhabitants, British, as well as Dutch, delight to lounge, sheltered from the sun, or to inhale the fresh evening breeze. The squares are well laid out, the streets are extremely clean, and the public buildings numerous and substantial. Throughout the week there is a continual busy hum of industry; and on the Sabbath the sounds of the church bells, and the groups of well-dressed people flocking to their respective places of worship, readily make the traveller forget that he is at the southern extremity of Africa. The castle, on the south-east side of the town, is a strong fortification commanding the anchorage; and, if well defended, is capable of a successful resistance to any force which may be brought against it. It is pentagonal, with a broad ditch and regular outworks; and contains most of the public offices, and barracks for 1000 men. There are several other defensive works, and the anchorage is commanded by a battery called the *Mouille*. A plentiful supply of excellent water is brought to the town in pipes, and distributed to every part of it; ships' boats are supplied at the landing-place with a beverage equal to that of the Thames. The population exceeds 20,000, of whom more than half are white; and of these the majority are Dutch. An institution, called the South-African College, was founded at Capetown in 1829; its affairs are under the superintendence of a council and senate; and it has professors of mathematics, astronomy, classical, English, Dutch, and French literature, drawing, &c. There is also a South-African literary and scientific institution, with a museum attached to it; a South-African public library; a Medical Society; a Royal Observatory, and several religious and benevolent societies.

The other towns of the colony are generally mere villages. The only large town is *Grahamstown*, in Albany, situate on the Kowie river, 650 miles east of Capetown, and 100 from Port-Elizabeth on Algoa Bay. It contains about 700 houses, about 3000 inhabitants, two public libraries, a printing office, and several excellent public buildings and institutions. *Port-Elizabeth*, in Vitenhage, on the coast of Algoa Bay, three miles north of Cape Recife, is rapidly rising in importance, and being a free port, bids fair to rival Capetown. *Vitenhage*, the capital of the district, is also a neat and flourishing town, built on a large and well-watered plain, 500 miles from Capetown. *Graddock*, in So-

merset district, on the direct road to the Guglra and Betchuana countries, is fast improving, and contains 500 inhabitants. *Graffreyne* is situate on a sort of basin, almost encircled by the deep channel of the Sunday river, closely environed by an amphitheatre of steep rugged hills, and contains about 500 houses, almost all neat and commodious brick buildings, with wide straight streets, which are planted with rows of lemon and orange trees. Population between 2000 and 3000. *Port-Beaufort*, at the mouth of Brede river, in Swellendam district, enjoys a considerable coasting trade. *Georgetown*, in George district, is pleasantly situate on a large plain, seven miles from the sea, is divided into several streets, with handsome houses, and is rapidly improving. *Bathurst*, in Albany, occupies an elevated site, nine miles inland from Port-Francis, and was intended for the capital of the district.

HISTORICAL EPOCHS.—The Cape of Good Hope was discovered in 1486 by Bartholomew Diaz. In 1620 two commanders of the English East India Company took possession of the country in the name of King James; but no settlement was then formed. In 1650 it was colonized by the Dutch Government, and remained in their possession for 156 years. In 1795 it was taken possession of by a British armament, but restored to the Dutch in 1802. In 1806 it was again taken by the British, and confirmed to them at the general peace in 1814.

THE ISLANDS OF AFRICA.

MADAGASCAR, in the Indian Ocean, about 240 miles from the coast of Mozambique, between 12° and 26° S. lat., and 44° and 52° E. long., is 930 miles in length, by from 70 to 350 in breadth, and contains an area of about 235,000 square miles. The population has been estimated at 4,700,000. Along the east coast extends a margin of low land from 20 to 30 miles in breadth, and along the west coast a similar margin, from 70 to 100 miles broad, and between them is an elevated country, consisting of extensive plateaux, running north and south, diversified with hills, luxuriant valleys, passes, and ravines, craters of extinct volcanoes, forests, savannahs, rivers, and lakes, while almost every part of the coast, particularly the western, is indented with spacious harbours and bays, some of which are 50 miles deep, with soundings in every part, and sheltered from every wind. Though the island is not traversed by any continuous chain, yet many parts may be called mountainous; the highest point, *Ankaratra*, lat. 19° 40' S. long., 47° 20' E., is about 11,000 feet above the level of the sea. The most fertile portions are the valleys, most of which produce rice and other vegetables, or are clothed with a rich and luxuriant verdure. The climate is extremely diversified; that of the coast is oppressively hot, while in the interior the temperature seldom exceeds 85°. The heat at Tananarivo, the capital, ranges from 40° to 85°; the middle of the day is often extremely sultry, but the mornings and evenings are always pleasant. The climate of the coasts is very prejudicial to Europeans, but in the central regions, it is much less so. The weather on the coast is usually hot, damp, and rainy; but in the interior, the rains are periodical. The trade winds from the east and south-east prevail during the greater part of the year; while the rains are often accompanied by violent gales from the north-west, west, and south-west. Earthquakes are sometimes felt. The soil in many parts is prolific, and highly susceptible of improvement; and the island produces many valuable plants, including both those of tropical and those of temperate climates. Among the animals may be mentioned five varieties of the monkey, foxes, wild dogs and cats, hogs, goats, cattle and sheep similar to those of South Africa, crocodiles, serpents, some of which are of large size, lizards, scorpions, and centipedes, parrots, flamingoes, falcons, kites, turtle-doves, pigeons, turkeys, and particularly bats of large size. The sea abounds with fish, and oysters are plentiful on the coast. The people are all comprised in one empire, form one nation, and speak various dialects of the same language; but they appear, nevertheless, to be descended from different original stocks. The distinction of colour separates them into two great classes, one of which are olive coloured, have handsome features, graceful persons, and lank dark hair, while the other and more numerous class closely resemble the Papuans, being short and stout, almost black, with low foreheads, broad flat faces, large eyes and mouth, and long crisped hair. With the exception of the Ovahs, who belong to the first class, and live in the interior, the Madagassars are little better than barbarians, go almost naked, despise a settled life, are extremely superstitious, and practise most of the vices so generally prevalent among the savages of the adjacent continent. Their diet consists principally of rice and manioc, with beef and poultry, and their cookery is extremely simple. Madagascar is divided into 28 provinces, each having a separate chief; but latterly the Ovahs have become the prevailing tribe, and their chief, who is in fact sovereign of the island, receives tribute from all the rest. The government is despotic, and the succession usually hereditary, though the king has the right of appointing his immediate successor, and of settling the line through future generations. The royal family are highly honoured, and no people can be more tenacious of etiquette than his subjects, and of the respect due to rank. The sovereign is also high priest of the national religion, which is a rude species of polytheistic idolatry. Christianity was introduced with some success by English missionaries between 1818 and 1830; but a royal edict, in 1835, not only forbade the profession of it, but legalised the persecution of all its adherents. Within the present century the whole island was reduced to subjection by Radama, chief of the Ovahs, who proved himself to be a wise and enlightened prince, anxious for the improvement of his country, and the civilisation of his subjects; but since his death, and the succession of his queen to the sovereignty, there has been a stagnation in the trade with England, the missionaries have been driven from the island, and every means adopted to destroy the effects of their past exertions in the promotion of religion and social improvement. The capital is *Tananarivo*, situate on a lofty table-land, nearly in the centre of the island. *Tamatave* on the east coast, is also a place of considerable importance. The capes of the island are *St. Mary*, the most southerly point, and *Cape Ambre*, the most northerly; *Cape East*, on the north-east coast; *St. Sebastian* and *Manumbaho* or *St. Andrew* on the north-west. The principal bays are those of *Antongil*, north-east, and *St. Augustine*, south-west.—(*Ellis's History*. Lond. 1837.)

The *Comoro Islands* are four in number, situate midway in the channel between Cape Delgado on the continent, and the most northerly part of Madagascar. They are high and mountainous in the interior, but the lower grounds abound in sheep, cattle, and all kinds of tropical grains and fruits. The people are mild and industrious. *Comoro*, the largest, is 90 miles in circumference, and contains about 30,000 inhabitants, who speak Arabic, and profess Islam. It contains a mountain peak, supposed to rise 6000 or 7000 feet above the level of the sea. *Anjouan* or *Johanna* is the most flourishing. The other two, *Mohilla* and *Mayotta*, are comparatively small.

BOURBON, 140 miles E. of Madagascar, between 20° 50' and 21° 24' S. lat., is 40 miles in length, by 27 in breadth, of an oval form, and contains about 900 square miles. It is divided into two parts by a chain of mountains, running north and south, and connecting two volcanic groups, or centres of volcanic action; the one of which, in the north, the *Piton des Neiges*, rises 10,355 feet above the level of the sea; the other, in the south, the *Piton de Fournaise*, is an active volcano of 7218 feet in height. There are no plains of any extent; the shores are not high, but there are no safe roads, nor any harbours. The climate is healthy and agreeable, especially on the eastern or windward coast. The atmosphere is pure, and the sky generally clear, though this tranquillity is sometimes disturbed by violent hurricanes. From December till May is the hot and rainy season, when the mean temperature is 80°; during the rest of the year the mean temperature is 76°. The soil is very fertile, particularly near the shore, where the cultivated land forms a belt round the island, ascending the mountain slopes in some places to the height of more than 3000 feet. The sugar-cane is extensively grown, about a fourth part of the cultivated land being so occupied; coffee also in small quantity, clove, cacao, and tobacco. Wheat, rice, and maize are raised, but to the extent of less than a fourth part of the quantity required; potatoes, beans, and other leguminous plants, and a great variety of fruits succeed remarkably well; and manioc forms the staple food of the blacks. In 1837, there were on the island 32,210 swine, 6500 deer and goats, 5350 horses, and about 15,000 mules, sheep, and oxen, in nearly equal numbers. The coasts abound with fish, large turtles, coral, and ambergris. The population, in 1836, consisted of 36,993 free colonists, and 69,296 slaves, of whom 57,316 were employed in agriculture. The free colonists are of French extraction; the slaves are African, mostly from Madagascar; the latter are in general humanely and kindly treated. Bourbon contains a college and numerous schools, 16 churches, 2

hospitals, 2 poor's houses, and 2 prisons. Four newspapers are published, in the island. *St. Denis*, the chief town, contains a public library, and about 12,000 inhabitants. *St. Paul*, the second town, contains 10,000 inhabitants; but neither of them possesses a harbour, and vessels have to lie in open and exposed roadsteads. Bourbon was discovered in 1545 by Mascarenhas, a Portuguese navigator, whose name it bore till the French took possession of it in the next century, and gave it its present name. It has a governor sent from France; and in on of the principal colonial possessions of that country.

MAURITIUS, or the ISLE of FRANCE, situate in the Indian Ocean, 90 miles E.N.E. of Booboon, between 20° and 21° S. lat., is of an elliptical form, 41 miles N.S., 32 E.W., and contains 432,650 acres or 676 square miles. It seems to be of volcanic origin; the rocks are disposed in strata, which rise from the sea, and form, in the centre of the island, a high plain. The mountains form three principal ridges, from 1800 to 2800 feet above the level of the sea; and their summits are in general pointed like cockcombs. A coral bank surrounds the island, at the distance of a quarter of a league from the shore and the islets on the coast are all of coral formation; but there is no trace of a crater. The soil is in many parts exceedingly rich; in some places it consists of a black vegetable mould, in others of a bed of solid clay or quaking earth, into which a stake of ten feet may be thrust without resistance. The climate is salubrious. Owing to the purity of the atmosphere the sky is of intense blue; and the mountains stand out in bold relief. The richest and rarest plants of the East have been naturalized, and most of the plants, trees, and vegetables of Europe have also been introduced. The principal branch of cultivation is the sugar-cane, and sugar forms about seven-ninths of the value of the exports of the island, the total amount of which in 1836 was £903,568. The white population are mostly of French extraction, and amounted in 1836 to 30,411; the blacks, in the same year, amounted to 53,791. The white and the coloured or mixed races are distinguished for their high spirit, talent, energy, and industry. The British residents are few in number, and chiefly merchants, soldiers, or government servants. The island was discovered in 1595 by the Dutch, who gave it its present name in honour of their stadtholder, Maurice Prince of Orange; it was subsequently taken possession of by the French, and raised to a naval station of the first importance. It was named the Isle of France, and became the capital of their possessions in the Indian Seas. Having become, during the war of the revolution, a resort of privateers, who infested the Indian Ocean, and committed great depredations on the British trade, it was attacked and captured in 1810 by a force from India; and at the subsequent peace in 1814, the island was confirmed to Britain. The capital is *Port Louis*, a very neat town, with 26,000 inhabitants, has well supplied markets, and excellent water. The only harbours are that of Port Louis on the west coast, and *Mahebourg* or *Grand Port*, on the S.E. Dependent on the government of Mauritius are the small islands of *Rodriguez*, *Seychelles*, *Diego Garcia*, and others. *Rodriguez*, 300 miles E. of Mauritius, is 26 miles long and 12 broad, mountainous, and inhabited by a few French colonists. On the north side is a bay, with excellent anchorage, secure shelter for ships of all sizes, and abundance of wood and water. The air is delightful, the water pure, and the vegetation luxuriant. The *Seychelles* or *Mahe Islands*, between 4° and 5° S. lat., and 54° and 57° E. long., consist of *Mahe*, containing 30,000 acres; *Praslin*, 8000; *Silhouette*, 5700; *La Digue*, 2000; *Curieuse*, 1000; *St. Anne*, 500; *Cerf*, 400; *Frigate*, 300; *Marianne*, 250; *Conception*, 120; *Felicite*, 800; *N. Island*, 500; *Denis*, 200; *Pache*, 200; *Aride*, 150; total, 50,120 acres; besides more than fifteen others of a smaller size, all resting on a coral bank, which surrounds them to a great extent; but all the islands are themselves composed of granite. They possess many excellent harbours, and never being visited by tornadoes, their neighbourhood is much frequented by whalers. The vegetation is extremely luxuriant, and the inhabitants carry on a lucrative trade in numerous small vessels, with India, Mauritius, and Bourbon. The most extraordinary vegetable production is the *Coco do mar*, a kind of palm, which grows only on Praslin and Curieuse, and has refused to grow, after repeated trials, on any of the others. The islands are very healthy. The *Seychelles* and the *Amirante Islands*, a low and insignificant group to the S.W., at the distance of 80 miles, are under the charge of an agent from the Mauritius, with 25 soldiers.

SOCOTRA, a large island, east of Cape Guardafui, at the entrance of the Gulf of Aden, is 70 miles in length, and 19 in breadth, and may be described as a pile of mountains, surrounded by a low plain. The soil is hard and not susceptible of much cultivation, and the south-west side of the island is as arid and barren as the worst parts of Arabia. The climate is cool and temperate; the island has been famous from the earliest period for the production of the *aloe spicata*, which appears to thrive only in parched and otherwise barren places. The hills on the west side are thickly covered with the plant to the extent of miles, but very little attention is paid to the cultivation and preparation of the aloe for exportation. Next in importance is dragon's blood, which is collected at all seasons; there are also tamarinds, figs, dates, and other fruits; but agriculture is almost unknown, the only grain cultivated being a kind of millet, which requires little attention. The inhabitants depend principally on their date-trees and their flocks. The only animals seen by the British settlers were camels, sheep, goats, asses, beeves, and civet cats. Socotra is inhabited by two distinct races of people; the one called Bedwines, inhabit the mountains, and the high western parts of the island; the other, who call themselves Arabs, are a mongrel race, the descendants of Arabs, Africans, Portuguese, and others. But they all wear the same dress, and have adopted the same language and customs. They are all Mohammedans; and there is not throughout the island a single constituted authority. But though without chiefs or laws, good order is pretty well preserved.—(*Memoir on the Island of Socotra*, by Lieut. Wallstead, *Journal R. Geog. Soc. Lond.* V.)

THE CAPE VERDE ISLANDS are a numerous group in the Atlantic Ocean off the west coast of Africa, about 80 miles from Cape Verde, between 14° and 18° N. lat., and 22° and 26° west long. The principal are *Santiago*, *Mayo*, *Fogo*, *Brava*, *Boavista*, *Sal*, *Santo Nicolao*, *Raza*, *Branca*, *Santa Luzia*, *Santo Vicente*, and *Sant' Antonio*. They are all of volcanic origin, and Fogo still emits much smoke from a crater 7884 feet above the level of the sea. In general the surface of them all is rugged, rocky, arid, and unproductive. The chief article of produce is cotton; there is also a very fine breed of asses and mules, many of which are sent to the West Indies. Goats, poultry, and turtle abound. Salt is formed in large quantities by natural evaporation, particularly in Mayo. The islands belong to the Crown of Portugal, and their governor-general resides at *Porto Praya*, in Santiago. *Tanafal* or *Tarafal Bay*, at the south-west part of Sant' Antonio, is the most convenient watering-place connected with the islands.

FERNANDO-PO, PRINCIPE, SAN THOME, and ANNORON, are situate in the Gulf of Guinea, directly south of the delta of the Kaware. *Fernando-Po* was discovered by a Portuguese of that name in 1471; it is of an oblong form, 120 miles in circumference, and very mountainous; Clarence Peak, near the northern extremity, rises to 10,655 feet. The mountains and valleys are covered with dense forests of large and valuable timber; but the climate is so unhealthy that it has been abandoned by the British settlement recently formed upon it. It is, nevertheless, still inhabited by a lawless race composed of slaves or malefactors from the neighbouring coast, which is only 20 miles distant. *Principe* or *Prince's Island*, 9½ miles long by 6 broad, is high and wooded. *St. Thomas* is large and fertile; but one half of the island is mountainous, and towards its southern extremity it presents a mass of steep elevations, with abrupt craggy faces, and several pinnacles rising like gigantic ninepins. *St. Thomas* lies immediately under the equator. *Annobon* is a pretty little island, inhabited by a simple native race; it is about 4 miles long, by 2 broad, and rises to an elevation of 3000 feet. The last three islands are nominally subject to the Crown of Portugal.

St. HELENA is situate in the Atlantic, 1200 miles from the nearest coast of Africa, in S. lat. $15^{\circ} 15'$, and W. long. $5^{\circ} 49'$. It presents to the sea, throughout its circumference of 28 miles, a perpendicular wall of rock from 600 to 1200 feet high. On the summit is a fertile plain, interspersed with conical eminences and fertile valleys. The climate is agreeable and temperate, though moist. There are only four places of access from the sea; and at the largest of these is *Jamestown*, the capital, on the north-west or leeward side of the island. Besides the indigenous plants, coffee, banyans, bamboos, aloes, apples, peaches, mulberries, have been introduced, and are found to thrive. Indeed nearly all the various kinds of tropical and European fruits ripen, more particularly in the sheltered valleys. Vines, oranges, citrons, lemons, figs, pomegranates, mulberries, tamarinds, mangoes, cocoa-nuts, sugar-cane, and pine-apples, thrive well; apples have succeeded tolerably; but the climate seems not congenial to cherries, currants, and gooseberries. Corn and pulse are little cultivated; nor is the climate suitable for them, on account of droughts. Population about 5000. The island was discovered on St. Helena's day (21st May), 1502, by Juan de Nova Castella, the Portuguese admiral, on his return from India; it was long in possession of the English East-India Company, but has now been transferred to the Crown. It has acquired great celebrity from being the place of confinement selected for Napoleon Buonaparte, who lived in it from 1815 to 1820, and was buried in one of its valleys till 1840, when his remains were transferred to Paris.

ASCENSION is a small island of volcanic origin, and of the most arid aspect, in the Atlantic Ocean, in $7^{\circ} 57'$ S. lat., $14^{\circ} 28'$ W. long. It has been recently garrisoned by a small body of British troops, and fortified at every accessible point, to serve as a place of refreshment for vessels employed on the coast of Africa. The shores abound with large turtles; and numbers of these animals are now kept in ponds, from which they can be purchased at 50s. a piece, weighing from 200 to 800 lbs.

The **ISLANDS OF TRISTAN DA CUNHA**, a small group, in 37° S. lat., 13° W. long., are three in number, rising like hills abruptly from the water to a great elevation. The principal island rises at an angle of about 45° to the height of 3000 feet, above which rises a dome-shaped summit to the height of 6400 feet, bearing the crater of an extinct volcano. The others are named *Inaccessible* and *Nightingale Islands*. They were discovered in 1506 by Tristão da Cunha, a Portuguese, whose name they bear, but remained uninhabited till the present century, when some British or Americans squatted upon them, and make a livelihood by cultivating the soil, and furnishing supplies to the few ships which visit them.

Bissagos or *Bijogas*, a group of small volcanic islands, off the mouth of the Rio-Grande, on the coast of Senegambia, between 10° and 12° N. lat. The inhabitants are said to be brave, but treacherous; they raise some maize, but are chiefly dependent on their cattle, goats, and fishing.

Sherboro, a large island on the coast south of Sierra Leone; off its most westerly point are the *Turtle Islands*.

CANARY ISLANDS.—See page 551.

MADEIRA, PORTO SANTO, and DESERTAS.—See page 556.

AMERICA.

GENERAL DESCRIPTION.

PHYSICAL GEOGRAPHY.

ASTRONOMICAL POSITION.—Between 35° and 170° W. longitude; and 72° N. and 56° S. latitude.

DIMENSIONS.—The greatest length from Point Beechey, on the Arctic Ocean, by a curve line, drawn along the Rocky Mountains and the Cordilleras of the Andes, to Cape Horn, is about 10,875 miles; the greatest breadth of North America, along the fifty-first parallel, is about 3250 miles; and of South America, from Cape San Roque in Brazil, to Cape Blanco, in Peru, 3200 miles. The narrowest portion of the continent, is the Isthmus of Darien or Panama, which connects North and South America, between the Caribbean Sea and the Gulf of Panama in the Pacific Ocean, the breadth of which, at one place, opposite Mandingo Bay, is little more than 18 miles. The continent is divided by this isthmus into two large peninsulas of not very unequal dimensions, but very different in form: North America contains about 7,400,000 square miles; South America, about 6,500,000; and the West Indies and other islands along the coasts about 150,000; or, altogether, the continent embraces 14,050,000 square miles. In these dimensions we have not included Greenland and the Arctic Islands; of which we shall give a separate account.

BOUNDARIES.—*Northern*:—the Arctic Polar Ocean. *Eastern and South-Eastern*:—the Atlantic Ocean. *Western and South-Western*:—the Pacific Ocean. South America terminates with a point in the Southern or Antarctic Ocean.

GENERAL ASPECT.—According to the geographical system adopted in the old world, America ought to be considered as two distinct continents, connected by the isthmus of Darien. Between these there is a striking resemblance; both are broad in the north, and gradually contract as they advance towards the south, till they end, the one in a narrow isthmus, the other in a narrow promontory. Each has a lofty chain of mountains near its western coast, abounding in volcanoes, with a low ridge on the opposite side, destitute of any trace of volcanic agency; and each has one great central plain which declines to the south and the north, and is watered by two gigantic streams. In their climate, however, and in their vegetation and animal productions, the two regions are very dissimilar. South America is a peninsula of a triangular form; its greatest length from north to south is 4550 miles, and its greatest breadth from east to west is 3200; its superficial area contains about 6,500,000 square miles, of which about three-fourths lie between the tropics, and the remainder in the southern temperate zone. From the configuration of its surface this peninsula may be divided into five distinct physical regions:—1. The low country skirting the shores of the Pacific Ocean, from 50 to 150 miles in breadth, and 4000 in length, of which the two extremities are fertile, and the middle portion is a sandy desert. 2. The basin of the Orinoco, surrounded by the Andes and their branches, and forming a region of extensive plains (*llanos*) either destitute of wood, or merely studded with trees, but covered with very long grass during a part of the year. During the dry season the heat in the plains is intense, and the parched soil opens into long rents, in which lizards and serpents lie in a state of torpor. 3. The basin of the Amazon, a vast plain, embracing a surface of more than 2,000,000 of square miles, possesses a rich soil and a humid climate. It is covered almost every where with dense forests, which harbour innumerable tribes of wild animals, and are thinly peopled by savages, who live by hunting and fishing. 4. The great southern plain, watered by the numerous affluents of the Rio de la Plata. Open plains occupy the greater part of this region, which is dry, and in some parts barren, but in general is covered with a strong growth of weeds and tall grass, which furnish food for prodigious herds of oxen and bees,

and afford shelter to a few wild animals of other species. 5. The high country of Brazil, eastward of the Parana and the Araguay, which presents alternate ridges and valleys, thickly covered with wood on the side next the Atlantic, and opening into pasture lands in the interior.

North America may also be divided into five regions :—1. The narrow region which separates the Gulf of Mexico and the Caribbean Sea from the Pacific Ocean, traversed throughout its whole length of 2500 miles by ranges of mountains, which leave a narrow tract of low land along the sea-coasts, while in certain portions of the interior, they form elevated table-lands. 2. The maritime region, between the Pacific Ocean on the west, and the ridge of mountains which extends from Cape St. Lucas in California, northwards to Alaska. 3. The elevated region, which forms a sort of table-land between the Maritime chain above mentioned on the west, and the Rocky Mountains on the east. In its southern portion it presents the arid salt plains of the Californian desert ; between 40° and 45° N. lat., it comprises a fertile region, with a mild and humid atmosphere ; but, beyond the last mentioned parallel, it is barren and inhospitable. 4. The great central valley of the Missouri and Mississippi, extending from the Rocky Mountains on the west, to the Alleghany or Appalachian mountains on the east, and from the Gulf of Mexico northwards to the 45° or 50° N. lat. Between these parallels runs in a waving line the watershed which divides the basins of the St. Lawrence and the Mississippi, from those of the streams that flow to Hudson's Bay and the Arctic Ocean. On the east side this region is rich and well wooded ; in the middle, it is bare, but not unfertile ; towards the west, it is dry, sandy, and almost a desert. 5. The eastern declivities of the Alleghany mountains, and the maritime region, extending to the shores of the Atlantic. This is a region of natural forests, and of mixed but rather poor soil. 6. The great northern plain beyond the 50th parallel, four-fifths of which are a bleak and desolate waste, overspread with innumerable lakes, and resembling Siberia in the physical character of its surface and the rigour of its climate.

MOUNTAINS.—The CORDILLERAS DE LOS ANDES skirt the shores of the Pacific Ocean like a vast rampart, along the western coast of South America, from the 12° of N. to the 53° of S. lat., where they reach the Strait of Magellan. Beyond this, the chain is continued along the western and southern coasts of Tierra del Fuego, where it may be said to terminate at the Strait of Le Maire or Staten Island. The Andes derive their name from *anti*, a Peruvian word, signifying copper. Though often described as a single chain, they generally consist of a succession of ridges, separated by high and narrow valleys ; but, instead of running in parallel lines, these ridges generally ramify from central points in all directions, and thus present the appearance of a confused assemblage of small chains. Between lat. 33° and 6° S. they spread out to a breadth of 300 miles, and even much farther, if we include the subordinate chains. In the intervals between the ridges are situate many lakes. From 6° S. to 2° N. the Andes contract their breadth, and form an elevated plateau ; one part of which constitutes the *paramo* or desert of Assuay, a plain at the height of 13,000 feet above the level of the sea, and presenting a surface of 50 English square miles, where snow storms are frequent, and only a few alpine plants grow. Farther north is another range of table-land, from 9000 to 9400 feet in height, near the northern extremity of which is the city of Quito. On this elevated plain are two lines of lofty summits, which stand detached, and are covered with perpetual snow, bearing the celebrated names of *Chimborazo*, *Antisana*, *Pichincha*, &c. From Quito, a single chain extends to Popayan, where it divides into three branches. The western branch, which scarcely reaches an elevation of 5000 feet, separates the valley of the river Cauca from the Pacific Ocean ; while a branch proceeding from it passes onward to the isthmus of Panama, where it terminates. The second, or central branch, maintains nearly the general elevation of the main trunk, and has summits which rise into the regions of perpetual snow. It separates the valley of the Cauca from that of the Magdalena. The third, or eastern branch, separates the valley of the Magdalena from the plains of the Rio Meta, and has its northern termination at Cape Vela, in 72° W. long. This, though lower than the central chain, contains summits which reach an elevation of 14,000 feet. Between the central and eastern ranges is situate the plain of Bogota, which is about 8700 feet above the level of the sea ; from the perfect level of its surface, and the barrier of rocks that enclose it, this plain appears to have been anciently a lake. The waters of the plain escape by a narrow outlet, and rushing down a cleft, leap at two bounds to a depth of 573 feet, forming the celebrated fall of *Tiquandama*, which, in respect of beauty and sublimity, is said not to be surpassed in the world. The mean height of the Andes in Peru, or that of the continuous ridge, independent of projecting cones, is estimated by Humboldt at 11,000 or 12,000 feet ; in Chili, according to Mr. Miers, the highest summits, in 33° S. lat., only reach the height of 15,000 feet, while the mean height of the chain is in some places so low as 8000 ; in Patagonia the elevation is still less, and may be estimated at about 5000 or 6000 ; none of the summits, so far as is known, exceed 9000. Till lately, the loftiest summits were supposed to be those in Quito ; but Mr. Pentland has ascertained that these are greatly surpassed by the mountains of Upper Peru, where the Andes form two cordilleras, or chains, separated by a large table-land, part of which is occupied by the lake Titicaca. The eastern cordillera presents, between 14° and 17° S. lat., a range of snow-capt peaks exceeding 20,000 feet in elevation ; and among these are particularly distinguished the *Nevado de Sorata*, 15° $30'$ S. and the *Nevado d' Illimani*, a little farther south. The western chain is lower than the eastern, but one of its summits reaches 18,800 feet. The mineral wealth of the region has attracted a large population to this table-land, which, with the exception of Thibet, is probably the highest inhabited country in the world. It was the primitive seat of the empire of the Incas, and the centre of Peruvian civilization. In Quito and Upper Peru, the back or crest of the ridge is free from snow, which only rests on isolated summits ; and the means of passing from the one side to the other might perhaps be found wherever it is deemed necessary. In Chili, beyond the latitude of 33° S., the highest point of the most frequented pass was found by Mr. Miers to be 11,200 feet above the level of the sea ; and the courier travels it even in winter. In Peru and Quito many of the passes consist of deep clefts, called *quebradas* (breaks), apparently produced by earthquakes, which are extremely narrow, and sometimes a mile deep. In Patagonia, where the snow line is much lower, the passes must be few ; but there are some ; and this circumstance would of itself authorise the conclu-

sion, that the general elevation of the chain is lower in that country than in Chili. But snow-capt mountains, and even glaciers, are said to be frequent.

Three branches or transverse chains proceed from the Andes, nearly at right angles, and stretch eastward across the continent, about 18° S. and 4° and 9° N. lat. The most northerly of these is the "Cordillera of the Coast," which leaves the main trunk near the southern extremity of the Lake of Maracaybo, reaches the sea at Puerto Cabello, and then proceeds eastward through Caracas to the Gulf of Paria, a distance altogether of about 700 miles, with a mean elevation of 4000 to 5000 feet. One of its summits, however, the *Silla de Caracas*, has an elevation of 8400 feet; and its western part, at some distance from the sea, contains the Sierra de Merida, whose elevation is 15,000 feet. The second transverse chain leaves the main trunk between 3° and 4° N. lat., and, passing eastward, terminates in French Guiana, not far from the mouth of the river Amazon. It is sometimes called the Cordillera of Parime, but is named by Humboldt the "Cordillera of the cataracts of the Orinoco," because that river, which flows among its ridges in the upper part of its course, forms the falls of Maypure at the point where it descends into the low country. The mean elevation of this chain is estimated at 4000 feet; but only a small part of it has been visited by any European. It separates the basins of the Orinoco and the rivers of Guiana from that of the Amazon, and is covered with magnificent forests. Its breadth is supposed to be from 200 to 300 miles, and its length, about 1500 miles. The third transverse chain, which bears various names, and is little known, crosses the continent between 12° and 18° S. lat., connecting the Andes with the mountains of Brazil, and separating the basin of the Amazon from that of the Plata. It is a broad and elevated plateau rather than a distinct cordillera, and consists of low hills or uneven plains, with very little wood, presenting in some places extensive pastures, and, in others, tracts of a poor sandy soil. Its average elevation probably does not exceed 2000 or 3000 feet above the level of the sea.

The *Mountains of Brazil*, which are of moderate height, and occupy a great extent of country, form an irregular plateau, bristled with sharp ridges and peaks. They extend from the shores of the Plata to within a short distance of the Amazon, over a space of 2000 miles, with a breadth of about 100. *Itacoluni*, about 250 miles N.W. of Rio Janeiro, which is celebrated for its auriferous sands and gravel, and contains the sources of three great rivers, the Parana, the San Francisco, and the Tocantim, is considered the most elevated summit, and the nucleus of the whole group. The western ridges of the group, which are near the middle of the continent, are supposed to be lower than those on the coast; but they are probably as high, if Dr. Spix be correct in stating that the mean temperature of the year is below 65° .

TABLE OF THE CULMINATING POINTS OF THE ANDES.

PRINCIPAL CHAIN,—		Feet.
Andes of Patagonia,—		
	<i>Corcorado</i> , on the west coast,	7,500
	<i>Yanleles</i> ,	7,020
" Chili,—	<i>Aconcagua</i> ,	23,944
	<i>Descabecada</i> ,	21,100
" Peru,—	<i>Volcano of Maypo</i> ,	12,705
	<i>Chipicani</i> , near Arica,	18,896
	<i>Pichu-Pichu</i> , near Arequipa,	18,600
	<i>Volcano of Arequipa or Guagua-Pilitina</i> ,	18,300
	<i>Nevado de Chuquibamba</i> ,	21,000
	<i>Nevado de Sasaguanca</i> , north-east of Lima,	17,904
	<i>Chimborazo</i> ,	21,440
	<i>Illiniza</i> ,	17,376
	<i>Volcano of Pichincha</i> , near Quito,	15,936
	<i>Cotacuche</i> ,	16,448
	<i>Volcano of Cotopaxi</i> ,	18,890
	<i>Volcano of Antisana</i> ,	19,150
" Colombia,—	<i>Cayambe</i> , Urcu,	19,648
	<i>Nevado de Sorata</i> ,	25,400
	<i>Nevado d' Illimani</i> , first peak, 16° $40'$ south,	24,450
	second peak,	24,200
	<i>Volcano of Gualatieri</i> ,	22,000
	<i>Cerro de Putasi</i> ,	16,037
	<i>Peak of Tolima</i> ,	18,336
	<i>Sierra de Merida</i> ,	16,420
	<i>Nevado de Mucachies</i> , near Merida,	15,986
	<i>Silla de Caracas</i> ,	8,632
" Tierra del Fuego,—	<i>Mount Sarmiento</i> ,	7,000
	<i>Mount Darwin</i> ,	6,600
	<i>Cape Horn</i> ,	1,870
" Brazil,—	Summit of the chain of Mantiguera,	8,421
	<i>Itacoluni</i> , Sierra do Espinhaço,	5,710
	<i>Sierra de Piedada</i> , near Sabara,	5,818
	<i>Sierra de Frio</i> , near Villa-do-Principe,	5,850
	<i>Sierra d' Arasoiba</i> , south-west of San-Pauls,	4,093
	<i>Sierra Tingua</i> , north of Rio Janeiro,	3,519

The *Mountains of North America* form several distinct ridges, the principal of which stretch in the direction of north and south. It has been generally supposed that the isthmus of Panama is traversed by a mountain range connecting the Andes of South America with the mountains of Mexico; but this is not the case. At the eastern extremity of the isthmus, between the mouth of the Rio Atrato and the bay of San Miguel a level plain extends from the one sea to the other, apparently not many yards above the level of either. Here then the mountains of North America commence, but throughout the isthmus they are of small elevation, and the highest point of the road which crosses the ridge, between Panama and the mouth of the river Chagres, has been found to be only 633 feet above the level of the Pacific Ocean. From that point to the table-land of La Puebla, 1400 miles W., no certain information has been obtained respecting the mountains. The most considerable elevations are on the south-west side, and there are no less than 22 volcanoes within that space. From Puebla to Durango the Mexican mountains spread out to form a table-land or elevated plain, from 5000 to 9000 feet above the level of the sea, and from 100 to 300 miles in breadth. Across this plain, in 19° N. lat. are five volcanoes in a line east and west. Two of these, on the eastern side of the continent, with a group of four or five other cones, between Xalapa and Cordoba, have an elevation of more than 17,000 feet, and are the only mountains in Mexico that exceed the line of perpetual snow, which is here about 15,000 feet above the level of the sea. *Jorullo*, the lowest of the five volcanoes, rose suddenly from the midst of a plain, in September 1759. It is 1600 feet above its base, and is surrounded by a number of smaller cones or burning masses, within a compass of four square miles, which have been heaved up in the form of a dome. Near the tropic the Mexican cordillera divides into three branches, one of which runs parallel to the eastern coast, at the distance of 30 or 40 leagues, and terminates in New

Leon; another proceeds in a north-westerly direction and sinks gradually as it approaches the Gulf of California, in the province of Sonora; the third or central chain passes through Durango and New Mexico, separates the sources of the Rio Gila from those of the Rio Bravo, and forms the eastern ridge or main trunk of the Rocky Mountains. These, however, are divided from the Mexican chain by a desert plain, which crosses the country about the 32° N. lat. from California to the Rio Bravo, rising to an elevation of 4000 feet. From this point the *Rocky Mountains* extend northwards, gradually becoming lower, till at last their elevation hardly exceeds 2000 feet. They also divide in their northern portion into 14 or 15 ridges, separated by narrow valleys, which altogether occupy a breadth of about 200 miles, and skirt the *ley Sea* at a short distance. From the southern point of California, a lower chain skirts the coast, as far as the volcano of *Mount St. Elias*, 60° N. lat.; and between this chain and the Rocky Mountains several intermediate ridges occur, the whole forming apparently an elevated plateau from 200 to 800 miles in breadth. Many of the summits of the Rocky mountains rise above the snow line, and their elevation, where they were crossed by Lewis and Clarke, and also farther south, has been estimated at 10,000 or 12,000 feet. A shorter route from the valley of the Mississippi to the west coast has since been found, in the direction of the river Platte, 41° N. lat., where an opening in the chain presents a passage so easy of access that a waggon drawn by horses might travel through it.

The *Alleghany* or *Appalachian Mountains*, which form the eastern border of the great central plain, consist of three, four, and, in some places, five parallel chains, extending from south-west to north-east, from Alabama to New Brunswick, a distance of 1100 miles, with a breadth varying from 100 to 150, and a mean elevation of 2000 or 3000 feet. They are almost every where clothed with forests, and interspersed with delightful valleys. They present their steepest side to the east, and the transition from their base to the maritime plain, which skirts the Atlantic, is very distinctly marked by a rocky ledge over which the rivers fall, and to the foot of which, in the northern section, the tide penetrates. Trenton, Philadelphia, Wilmington, Baltimore, Georgetown, Fredericksburg, Richmond, Smithfield on the Neuse, Averysboro on Cape Fear river, Columbia, Augusta, Milledgeville, and Columbus, stand on or near the edge of this ledge, which from the last-named place recedes to the north-west through Alabama and Mississippi till the Atlantic plain merges into the Mississippi valley. Between the Alleghanies and the Rocky Mountains the *Ozark Mountains* extend along the middle of the great valley of the Mississippi in a northerly and southerly direction. The Arkansas and the Red River are the only streams that have forced a passage through these mountains, which, though low, occupy a great extent of country and are covered with wood.

From Labrador westward a line of elevated ground, not entitled to be called mountainous, as its greatest known elevation does not exceed 2000 feet, forms the watershed between the basin of the St. Lawrence and the great lakes, and the streams which flow northwards to Hudson's Bay. It is, however, cut through by the Nelson river; and, after separating the valleys of the Saskatchewan and the Churchill, it either sinks down into the great plains of this region or extends north-eastward between Hudson's Bay and the Great Slave Lake.

TABLE OF THE CULMINATING POINTS OF THE MOUNTAINS OF NORTH AMERICA.

PRINCIPAL CHAIN, —	Feet.
Cordillera of Veragua, . . . <i>Silla de Veragua</i> (isthmus),	9,000
„ Guatemala, . . . <i>Volcano d' Agua</i> ,	14,900
„ „ <i>Puego</i> ,	14,700
„ Mexico, . . . <i>Volcano of Popocatepell</i> ,	17,735
„ „ <i>Orizaba</i> ,	17,388
„ „ <i>Iztacihuatl</i> ,	15,700
„ „ <i>Nevado de Toluca</i> ,	15,156
„ „ <i>Cofre de Perote</i> ,	13,514
Rocky Mountains, <i>Spanish Peak</i> ,	11,000
„ „ <i>James' Peak</i> ,	11,320
„ „ <i>Long's Peak or Bighorn</i> ,	13,575
„ „ <i>Mount Hooker</i> ,	15,700
„ „ <i>Mount Brown</i> ,	16,000
Californian or Maritime } <i>Mount Hood</i> ,	12,000
Range, } <i>Mount Rainier</i> ,	10,000
„ „ <i>Mount St. Helen's</i> ,	12,000
„ „ <i>Mount Baker</i> ,	10,000
„ „ <i>Mount Edgecumbe</i> ,	8,000
„ „ <i>Mount Fairweather</i> ,	14,750
„ „ <i>Mount St. Elias</i> ,	17,900
„ „ <i>East Peak Volcano, Alaska</i> ,	8,500
Alleghany Range, <i>Roan mountains, North Carolina</i> ,	6,038
„ „ <i>Black Mountain, North Carolina</i> ,	6,476
„ „ <i>Mount Washington, New Hampshire</i> ,	6,428
„ „ <i>Mount Adams</i> , do.	5,900
„ „ <i>Mount Jefferson</i> , do.	5,869
„ „ <i>Mount Madison</i> , do.	5,620
„ „ <i>Mount Monroe</i> , do.	5,510
„ „ <i>Mount Franklin</i> , do.	5,050
„ „ <i>Mount Pleasant</i> , do.	4,920
„ „ <i>Mooshebe</i> , do.	4,630
„ „ <i>Grand Monadnock</i> , do.	3,150
„ „ <i>Kearsarge mountains</i> , do.	2,400
„ „ <i>Katahdin, Maine</i> ,	5,385
„ „ <i>Bald mountain</i> , do.	4,000
„ „ <i>Marshall Mountain, Vermont</i> ,	4,280
„ „ <i>Camel's Rump</i> , do.	4,150
„ „ <i>Killington Peak</i> , do.	3,675
„ „ <i>Ascutug</i> , do.	3,320
„ „ <i>Saddle Mountain, Mass.</i> ,	4,000
„ „ <i>Mount Marcy, New York</i> ,	5,300
„ „ <i>Round Top, Catskill mountains, New York</i> ,	3,804
„ „ <i>Peaks of Otter, Virginia</i> ,	4,260

SEAS, GULFS, AND STRAITS. — 1. In the Arctic Ocean: — *Kotzebue Sound*, *Elson's Bay*, *Vackenzie's Bay*, *Dease's Inlet*, *E. Smith's Bay*, *Harrison's Bay*, *Liverpool Bay*, *Franklin Bay*, *Darby Bay*, *George IV. Coronation Gulf*, *Bathurst Inlet*, and *Melville Sound*, *Prince Regent Inlet*, *Fury and Hecla Sound*. 2. On the Atlantic Coast: — *Hudson's Bay*, a large inland sea, between 51° and 64° N. lat., and 75° and 95° W. long., stretching about 800 miles from N. to S. exclusive of *James's Bay*, and 600

from E. to W., and containing a surface of about 300,000 square miles. It is navigable only for a few months in the year, being at other times frozen over, or obstructed by drift ice. It is full of sandbanks, islands, and reefs; and its shores are rocky and barren. The southern portion, named *James's Bay*, penetrates southward about 260 miles, with a breadth of 180. On the west coast are *Chesterfield Inlet*, a very narrow channel penetrating westward for 270 miles; *Wager River* and *Repulse Bay*. Hudson's Bay communicates with the Atlantic by *Hudson's Strait*, which is about 500 miles in length, and at the narrowest part more than 80 miles wide. *Cumberland's Strait* and *Frobisher's Strait*, are two partially explored inlets on the west side of Davis' Strait. *Gulf of St. Lawrence*, a large sea inclosed by Newfoundland on the east, Nova Scotia, New Brunswick, and Canada, on the south and west, by Labrador on the north, and communicating with the ocean by the *Strait of Belle Isle* to the north, and a nameless strait to the south of Newfoundland. The *Bay of Fundy* separates Nova Scotia from New Brunswick; it is about 180 miles in length by 33 in breadth, and contains an area of 6000 square miles. The shores are high and rocky, and the navigation dangerous, on account of the strength of the tides and the prevailing fogs. The tide sometimes rises 70 feet, and rushes up the bay with incredible velocity. *Passamaquoddy Bay*, between Maine and New Brunswick. *Penobscot Bay* and *Massachusetts Bay*, on the east coast of New England. *Narraganset Bay* in the state of Rhode Island. *Long-Island Sound*, between Long-Island and Connecticut, 120 miles in length, by from 2 to 20 in breadth, and communicating with New York harbour by a narrow strait named *Hell Gates*. *Delaware Bay*, the estuary of the Delaware river, leading up to Philadelphia, is filled with numerous shoals and banks, among which there are several ship channels; it is 16 miles wide at the mouth, but higher up expands to about 30. *Chesapeake Bay*, a noble estuary, between Virginia and Maryland, extending N.-S. about 180 miles, with a breadth varying from 25 to 7. It opens to the Atlantic between Cape Charles and Cape Henry, usually called the Capes of Virginia, which are about 14 miles asunder. The bay is generally deep, contains many commodious harbours, and affords a safe and easy navigation for vessels of the greatest burden. It receives the waters of the large rivers Susquehanna, Potomac, Rappahannock, York, and James. *Albmarle Sound*, an estuary on the coast of North Carolina, about 60 miles in length, and from 4 to 15 wide, communicates with *Pamlico Sound*, a gulf which extends along the coast southward for about 100 miles, with a breadth varying from 8 or 10 to 25; and is separated from the ocean by a series of long and very narrow ridges, or banks of sand. It terminates south-west with the two large estuaries of Pamlico River, and Neuse River, and communicates with the ocean by *Roanoke Inlet*, *New Inlet*, *Ocracoke Inlet*, and *Core Sound*, which extends south to *Old Tail Inlet*. On the outside of the banks is *Rah-ligh Bay*; and farther south is *Onslow Bay*, likewise separated from the mainland by a series of narrow banks, which form, inside, a long and narrow channel navigable by small vessels. *Long Bay*, between Cape Fear and Georgetown entrance, on the coast of Georgia and South Carolina. *St. Helena Sound*, *Port-Royal Entrance*, *Calibogue Sound*, *Daufuskee Sound*, *Wassaw Sound*, *Ossabaw Sound*, *St. Catharine's Sound*, *Sapelo Sound*, *Doby Inlet*, *Altamaha Sound*, *St. Simon's Sound*, *St. Andrew's Sound*, and *Cumberland Sound*, on the coast of Georgia. The *Gulf of Mexico* is a large inland sea, about 1100 miles in length from east to west, and about 700 or 800 from north to south, bounded by the coasts of Florida, Alabama, Louisiana, and Texas on the north-east, north, and north-west; by Mexico and Guatemala on the west, south-west, and south; and by Cuba and the channels on each side of it, on the south-east. Along the coasts are the minor bays of *Chatham*, *Gallivan*, *St. Charles*, *Carlos* or *Charlotte Harbour*, *Espirito Santo* or *Tampa*, *Varasano*, *Santa Fé*, *Appalachee*, *Apalachicola*, *St. Joseph*, *St. Andrew*, *Choctahatchee*, and *Pensacola*, in Florida; *Mobile* and *Pascagoula*, in Alabama; *Chaudesur*, *Achafaliga*, *Cote-blanche*, and *Vermilion*, in Louisiana; *Galveston*, *West*, *Espirito Santo*, in Texas; *Cumpeche*, between Mexico and Yucatan. This gulf is free from banks, and contains only a few small rocky islands on the coasts of Yucatan, with the Florida reef near its eastern extremity. The shores are low, and generally lined with flat sandy islands, not far from the land. There are few harbours, and the rivers which fall into it are obstructed by bars at their mouths, which render them all, except the Mississippi, nearly inaccessible for vessels of large draught. The currents of the gulf are very remarkable. The water which enters it from the Caribbean Sea is soon divided into two portions, the one running east along the coast of Cuba, the other westward, in a curve line through the middle of the gulf round towards the straits of Florida, where it meets the other current, and the two united form the *Gulf Stream*, which passes with great velocity through the comparatively narrow channel between Cuba and Florida. The gulf is also characterized by the high temperature of its water, which is generally 86° ; while in the ocean, in the same latitude, it is only 76° or 78° , and even near the equator is only 80° or 81° . The Gulf Stream flows northward through the *Gulf of Florida* or the *New Bahama Channel*, attaining its greatest velocity at the narrowest part of the strait. The *Caribbean Sea* extends along the northern coast of South and Central America, from the mouths of the Orinoco to the Mosquito shore, being about 1400 miles long, with a breadth varying from 350 to 650. Its northern and eastern boundaries are formed by the long range of the West India Islands, through which it communicates with the ocean by numerous channels. The southern shores are generally high and rocky, and contain several large gulfs. The *Gulf of Paria* separates Trinidad from the continent, and is about 100 miles from E. to W. by about 50 in width. It is shallow, with a muddy bottom, and being always placid, affords safe anchorage for any number of vessels. The *Gulf of Maracaybo* or *Unacuella*, forms a deep and wide inlet, terminating with a navigable strait which communicates with the large *Lake of Maracaybo*; the *Gulf of Darien* extends far inland, on the eastern side of the Isthmus of Panama; *Blanchet's Sound*, on the Mosquito shore; and the *Bay of Honduras*, a large open gulf between the Mosquito shore and Yucatan. The navigation of the Caribbean Sea is clear and open; the islands being neither numerous nor extensive. A current from the ocean enters it through the channels among the Windward Islands, by which its force is broken; and at all seasons a current sets from this sea into the Gulf of Mexico. *Bahia de Todos os Santos*, or *All Saints Bay*, a small round gulf on the east coast of Brazil, forming a noble basin studded with islands, and affording safe anchorage for any number of ships. Lat. 13° S. *Rio de la Plata*, the large estuary of the rivers Parana and Uruguay, opens from the Atlantic with a width of 170 miles, and gradually diminishes in breadth till it meets the rivers about 200 miles from the ocean. It is much encumbered by sandbanks, and in the upper part becomes very shallow, so that the navigation is intricate and dangerous. *Bahia de S. Mathias*, *B. de San Joseph*, *Bahia Nueva*, *Bahia de los Camarones*, *Bahia de S. Jorje*, *Puerto Deseado* (Port Desire), and *Bahia Grande*, on the east coast of Patagonia. The *Strait of Magellan*, between Patagonia and Tierra del Fuego, extends from the Atlantic Ocean to the Pacific, for about 300 miles, with a breadth varying from 1 $\frac{1}{2}$ to 40 miles. Its shores are lofty, and generally rugged, and its depth is in some parts very great. The passage is extremely dangerous, owing to the violent currents, and to the sudden and severe tempests to which the Strait is subject. *Gulf of Trinidad*, *Gulf of Peñas*, *Gulf of Guayaquil*, on the west coast of South America. *Bay of Panama*, which forms the southern side of the great Isthmus, is about 130 miles in length with a breadth nearly equal. On its east side is the *Bay of Santo Miguel*, and, on the west, the *Gulf of Larita*. Towards the north-east shore are the *Pearl Islands*, where small quantities of pearls are procured; and in the north-west are a few rocky island, which form the harbour of Panama. *Gulf of Nicoya*, on the coast, south of the lake of Nicaragua. The *Gulf of California* or the *Vermilion Sea*, extends northward between the mainland of Mexico and the peninsula of California, for about 700 miles, with a breadth varying from 40 miles to 150. Many rocky islands skirt the western shore; and on the eastern is the large island of Tiburon. Pearls

used to be collected here during the last century, but the quantity has diminished. It receives at its northern extremity the river Colorado. The *Port or Bay of San Francisco*, on the coast of New Albion, extends inland about 50 miles, with a breadth of 20. It contains many good harbours, and receives the waters of three considerable rivers. *Queen Charlotte's Sound*, a large navigable inlet or strait, between the mainland and the island of Quadra and Vancouver. *Nootka Sound*, a place of some notoriety, on the west or oceanic coast of that island. *Norfolk Sound*, *Cross Sound*, *Admiralty Bay*, *Prince William's Sound*, *Cock's Inlet*, *Bristol Bay*, *Norton Sound*, all on the north-west coast.

CAPES.—*Wolstenholme*, the most westerly, and *Chidley*, the most easterly, point of the south side of Hudson's Straits; *Charles*, the most easterly point of Labrador; *Race*, the most easterly point of Newfoundland; *Canso*, the north-east point of Nova Scotia; *Sambro Head*, near the entrance of Halifax harbour; *Sable*, the south-east point of Nova Scotia; *Cape Ann*, at the northern side, and *Cape Cod*, at the southern side of the mouth of Massachusetts bay; *Montauk Point*, the east end of Long-island; *Sandy Hook*, the south side of the entrance to New York harbour; *Cape May*, at the north side, and *Cape Hentlopen*, at the south side of the entrance of the Delaware; *Cape Charles* and *Cape Henry*, or the *Capes of Virginia*, at the entrance of the Chesapeake; *Cape Hatteras*, *Cape Lookout*, and *Cape Fear*, on the coast of North Carolina; *Cape Romain*, on the coast of South Carolina; *Cape Canaveral*, *Cape Florida*, and *Cape Sable*, on the coast of Florida; *Catoche*, the north-east point of Yucatan; *San Antonio*, the most westerly point of Cuba; *Cabo de Cruz*, the most westerly, and *Maysi*, the most easterly point of the south coast of Cuba; *Negril*, the most westerly, and *Morant*, the most easterly point of Jamaica; *Tilauron*, the most westerly, and *Engano*, the most easterly point of Hayti; *Gracias a Dios*, north-east point of Guatemala, in the Caribbean Sea; *San Roque* and *St. Augustine*, on the north-east coast of Brazil; *Frio*, on the coast of Brazil, north of the Tropic of Cancer; *Santa Maria* and *San Antonio*, at the entrance of the Rio de la Plata; *San Juan*, the most easterly point of Staten island; *Horn*, the most southerly point of Tierra del Fuego; *Tres-montes* cape and peninsula, on the west coast of Patagonia; *Corrientes*, on the west coast of Mexico; *San Lucas*, the most southerly point of the peninsula of California; *Mendocino*, on the coast of New California; *Romanzoff*, *Prince of Wales*, *Lisburne*, and *Icy Cape*, on the east side of Behring's sea and strait; *Point Pelee*, *Point aux Pins* or *Landguard Point*, and *North Foreland* or *Long Point*, on the north shore of Lake Erie.

RIVERS.—America abounds with rivers, some of which are the largest in the world; and the larger rivers are almost all favourably distinguished by the characteristic of being navigable throughout the greater part of their course. We shall describe them under the two heads of *North American Rivers* and *South American Rivers*.

§ 1. *Rivers of North America.*

The **MISSISSIPPI** has its sources in the brooks which form the small lake Itaska or La Biche, about 47° 10' N. lat., on a high table-land about 1500 feet above the level of the sea, and 3200 miles from the mouth of the river, following the windings of the stream, but only 1250 in a straight line. Rising in a region of swamps and wild rice lakes, it flows at first through low prairies, and then in a broken course through forests of elm, maple, birch, oak, and ash, till, at the Falls of St. Anthony, 1100 miles from its source, it tumbles over a limestone ridge, with a fall of 17 feet. The river is here 600 yards wide. Below this point it is bounded by limestone bluffs from 100 to 400 feet high, and first begins to exhibit islands, drift wood, and sand bars. Its current is slightly broken by the Rock River and Des Moines Rapids, which, however, present no considerable obstacle to navigation; and 850 miles below the Falls of St. Anthony it receives from the west the great stream of the Missouri. Above the junction, the Mississippi is a clear, placid stream, a mile and a half wide; below, it is turbid, and becomes narrower, deeper, and more rapid. Between the mouth of the Missouri and the sea, a distance of 1220 miles, it receives its principal tributaries:—the *Ohio* from the east, and the *Arkansas* and *Red River* from the west; and, immediately below the mouth of the latter, it gives off in times of flood a portion of its surplus waters by the outlet of the *Atchafalaya*. It is in this lower part of its course that the river often tears away the islands and projecting points, and, in the season of high water, plunges huge masses of the banks with all their trees into its current. In many places it deposits immense heaps of drift wood on its mud bars, which become as dangerous to the navigator as rocks and shoals at sea. Below the *Atchafalaya* it discharges a portion of its waters by the *Lafourche* and the *Terribile*; but the greater part of its contents flows on in the main channel, which passes through a flat tract, by New Orleans, and reaches the Gulf of Mexico at the end of a long projecting tongue of mud, formed by the deposits of the current. Near the sea it divides into several channels, here called passes, with bars at their mouths, on which are from 12 to 16 feet of water. The water is white and turbid, and tinges the sea to the distance of several leagues. The river begins to rise in the end of February or the early part of March, and continues to increase irregularly till the middle of June, generally overflowing its banks to a considerable extent. Above the Missouri the flooded bottoms are from 5 to 8 miles wide; but below that point, they extend to a width of 40 or 50 miles. Below the mouth of the Ohio, no part of the western bank affords a spot suitable for the site of a large town, or hardly even for a road secure from overflow. On the eastern side there are several points where the hills approach the river, and present good sites for towns; but from Memphis to Vicksburg, a distance of 360 miles, the whole tract consists of low grounds subject to inundation; and below Baton-Rouge, where the line of high land wholly leaves the river, and passes off to the eastward, there is no place where a settlement is practicable beyond the edge of the river border, which is higher than the marshy tract beyond it; and by the construction of artificial embankments, called *levées*, a few feet in height, is entirely secure from inundation. But the tendency of this embankment is to shut up numerous outlets, by which the superfluous waters formerly escaped, and thus to raise the volume and height of the river, and thereby to increase the danger of overflow. Before the introduction of steam vessels, the river was navigated by keel-boats, which, in going upward, were rowed along the eddies of the stream, or drawn by ropes along shore; and by this tedious process more than three months were consumed in ascending from New Orleans to the Falls of the Ohio, a passage which is now made in ten or twelve days. The first steam-boat was introduced in 1810; there are now upwards of 500 on the river.

The **MISSOURI** has a much longer course than the Mississippi, its extreme length, from its sources to the Gulf of Mexico, being about 4500 miles. It is navigable to the foot of the great falls, about 3800 miles from the sea, and steam-boats have gone up the stream 2200 miles from its junction with the Mississippi. It rises from the Rocky Mountains; some of its sources are only about a mile from those of the Columbia. Its headwaters have not been thoroughly examined; but, in the earlier part of its course, it has been ascertained to be a foaming torrent, which forces its way out of its mountain barriers through a remarkable chasm of perpendicular rocks, nearly 6 miles in length, and 120 feet in height, called the *Gates of the Rocky Mountains*. Sixty miles below the last mountain ridge it forms a succession of falls and rapids, inferior in grandeur only to those of Niagara. In a course of 17 miles the river has a descent of 300 feet; and in that space, besides the Great Fall of 90 feet perpendicular and 300 yards wide, and a fine fall of 50 feet, there are several others of from 12 to 20 feet. The Missouri now flows through vast prairies, and, soon after receiving the Yellowstone, a large

navigable stream, takes a south and south-east course to the Mississippi. A slight cause might have turned its current towards Hudson's Bay; for the Souris or Mouse River, a branch of the Assiniboine, rises within a mile of its bed, near the point where it begins to take its southerly course. Its principal tributaries are from the west; the *Platte*, a wide shallow stream, the *Kansas*, and the *Osage*, are the principal. The Missouri not only has a longer course than the Mississippi, but it brings down a greater volume of water, and imparts its own torbid character to the united stream; yet it loses its name at the confluence. It has an average velocity of 5 miles an hour when in flood, and of 4 or 4½ when lower, while that of the Mississippi is only about 3. The obstructions to the navigation of the Missouri are of the same kind as those of the Lower Mississippi, but they are much more numerous and formidable. The channel is rendered intricate by the great number of islands and sand-bars, and in many places the navigation is hazardous from the rafts, snags, falling banks, &c. It begins to rise early in March, and continues to swell till the middle or the end of July, when the summer floods of its most distant tributaries come down. During this period there is sufficient depth for steamers of almost any draught; but during the rest of the year, the river is scarcely navigable through any great distance by boats drawing more than two feet and a-half.

The **OHIO** (*La Belle Riviere* of the early French settlers) is, next to the Missouri, the most important tributary of the Mississippi. The *Alleghany*, which rises near the edge of Lake Erie, and the *Monongahela*, which issues from the mountains of Virginia, unite at Pittsburgh, and take the name of Ohio. From Pittsburgh the Ohio has a course of 950 miles to the Mississippi, receiving in its progress numerous navigable streams on both sides: from the north, the *Big-Beaver*, *Muskingum*, *Scioto*, *Miami*, and *Wabash*; and from the south, the *Kanhawa*, *Big-Sandy*, *Kentucky*, *Green*, *Cumberland*, and *Tennessee*. The whole region drained by this fine river includes an area of 200,000 square miles, rich in the most useful natural productions, and enjoying a mild and healthful climate. From Pittsburgh to its mouth, the Ohio has a descent of 400 feet, or 5 inches to a mile; its current is gentle, and is nowhere broken except by the rapids at Louisville, which do not obstruct the navigation at high-water. The breadth of the stream varies from 400 yards to 1400. The annual range between high-water and low-water is about 50 feet, but sometimes exceeds even that variation. In August, September, and October, the water is at the lowest; in December, March, May, and June, at the highest. The navigation is usually impeded by ice in winter, and, in the upper part of the river, by drought in summer; but during the greater part of the year the stream is covered with all sorts of river craft and steamers, carrying on an active trade.

The **ARKANSAS** exceeds the Ohio in size; but a considerable part of its course lies through barren, sandy tracts, and in its navigable qualities it is far inferior to the other. In the dry season the river is shallow, and in some places wholly disappears, or leaves only stagnant pools, separated by sand-banks; even its floods are so uncertain, and their rise and fall so rapid, that the stream is nearly useless for navigation. Steam-boats ascend, but with difficulty, to Fort Gibson, only 420 miles from the Mississippi, though the whole length of the river is estimated at 2500 miles.

The **RED RIVER** rises in the Rocky Mountains, within the Mexican territory, and, flowing eastward, joins the Mississippi in Louisiana. It is navigable for 1200 miles; but its channel was formerly so much choked up by accumulated masses of drift wood, through a distance of 160 miles, in Louisiana, that the greater part of the water was forced out of the bed of the river into numerous bayous or lakes. This obstruction has been lately removed, at an expense to the United States of 300,000 dollars, and steam boats can now ascend the stream throughout the whole of its navigable course.

The **ILLINOIS** is formed in the north-eastern part of the State of the same name, by the junction of two large streams, the *Kankakee* from Indiana, and the *Des-Planes* from Wisconsin, from which it flows in a south-westerly course of 300 miles to the Mississippi. It is navigated for 260 miles to the rapids at Ottawa; when swollen by rain it overflows its banks, and the Mississippi, when full, sets back its waters to a distance of 70 miles from its mouth. In some places the river expands to such a width as to have the appearance of a lake; and one expanse of this kind, 20 miles in length, has received the name of *Lake Peoria*. The Kankakee rises in Indiana, within about two miles of the river St. Joseph, which falls into Lake Michigan; and in the wet season, boats may pass from the one river to the other. The Des-Planes runs for some distance parallel to the shores of Lake Michigan, and not more than 10 miles from the lake, with which there is a natural communication through the Chicago, which is often passed by loaded boats during the spring floods.

The names and length of the principal rivers of the Mississippi basin are stated in the following Table:—

	Miles.		Miles.
MISSISSIPPI,	3,200	Salt,	250
Missouri,	3,300	Maramee,	200
Yellowstone,	1,000	St. Francis,	450
Little Missouri,	300	White,	600
Sienne,	300	Arkansas,	2,500
Quicourt,	500	Canadian,	1,000
Platte,	1,200	Neusho,	800
Kansas,	800	Red River,	2,000
Osage,	500	Washita,	800
Gasconade,	300	Ohio,	1,250
Jacques,	600	Alleghany,	350
Sioux,	500	Monongahela,	300
Grand,	500	Kanacha,	450
Churriton,	200	Kentucky,	360
St. Peter's,	500	Green,	300
Penaca, or Turkey,	200	Cumberland,	600
Iowa,	350	Tennessee,	1,500
Chacaguar,	200	Muskingum,	200
Des-moines,	600	Scioto,	200
St. Croix,	300	Miami,	175
Chippewa,	300	Wabash,	550
Wisconsin,	600	White River,	200
Rock River,	450	Hatchy,	200
Illinois,	500	Yazoo,	300
Kaskaskia,	300	Big Black,	200

The **ST. LAWRENCE** flows from the N. E. extremity of the Lake Ontario, where its stream, for the first forty miles, is divided by a multitude of islets, some consisting of bare rocks, some covered with pine groves, and some presenting smiling meadows. This space is called the *Lake of the Thousand Isles*; but the real number of islands is said to be 1692. About 110 miles from Lake Ontario, a series of rapids interrupts the navigation, but they are now passed by the Cornwall Canal; and below the Lake St. Francis are the *Cedar Rapids* and the *Cascades*, difficulties which are avoided by a short cut called the Military Canal. Below this, the river meets its principal tributary, the *Ottawa*, and the two rivers together form three islands, named Montreal, Jesus, and Perrot. Between Montreal and the southern shore is the beautiful but rapid and dangerous *Sault St. Louis*, which is passed by means

of the *La Chine Canal*. From this point there is no considerable obstruction to the navigation, but the current of the river is in some places still rapid. Nearly midway between Montreal and Quebec the river forms a wide expanse named *Lake St. Peter*; but further down the width continues pretty regular, till it passes Quebec, below which it encircles the Isle of Orleans, and then gradually and regularly expands into a wide estuary, which may be considered as terminating with the island of Anticosti, about 700 miles from Lake Ontario. At Quebec the width of the river is only 1314 yards; at the mouth of the river Saguenay, 120 miles further down, it is 18 miles wide; at Cap de Monts, or Mont Pelée, 130 miles below, it is 25 miles; and where at last it opens into the gulf, the estuary is nearly 105 miles across. The tide is perceptible at Trois Rivières, 430 miles above Anticosti. The water becomes brackish 21 miles below Quebec, and is quite salt at Kamouraska, 75 miles lower down. Vessels of 600 or 700 tons reach Montreal, which is 580 miles from Anticosti, with little difficulty, as there is, during this distance, only one rapid, named Richelieu, 25 miles below Trois Rivières. The river is here so contracted and obstructed by rocks as to leave only a narrow ship channel, in which, at ebb tide, a rapid is formed that cannot be passed without great care; but at high tide, when the water rises 15 or 18 feet, the rapid disappears. Between Lake Ontario and Montreal, the river bears the name of *Kataragui*, or *Cataraguan*. Below Quebec the St. Lawrence is never frozen over, but the navigation is impeded in spring by the large masses of ice which are floated down from the upper districts, and kept in motion by the combined action of the current and the tides, presenting a most remarkable and almost terrific scene. The channel does not become clear till about the second week of May, and vessels attempting a passage sooner are often wrecked, or crushed to pieces by the floating masses. The principal tributary is the *Ottawa*, which flows from Lake Temiscaming, and much resembles the St. Lawrence itself in its great breadth and lake-like expanses. At its confluence with the St. Lawrence it spreads out into the Lake of the Two Mountains; and 30 miles up its stream are the Long Sault Rapids, which are passed by means of the Grenville Canal. Steamers ascend to Bytown and Hull at the foot of the Chaudières or Kettle Falls, the principal of which is 60 feet high. Above these there are numerous rapids. The other principal affluents on the left bank are: the *St. Maurice*, at Three Rivers; the *Bitoum*, the *St. Anne*, the *Jacques Cartier*, and the *Saguenay*, a large and broad river, the outlet of Lake St. John. On the right bank: the *Ouegatchie*, *La Grasse*, *Rapquette*, and *St. Régis*, from New York; the *Chataaugay*, above Montreal; the *Richelieu*, the outlet of Lake Champlain; the *Yamaska*, *St. Francis*, and *Nicolet*, at Lake St. Peter; the *Besancour*, *Gentilly*, *Du-Chêne*, *Chaudière*, and *Etchemin*, between St. Peter's and Quebec.

The *River St. John* flows through the disputed territory to the north of the State of Maine, and the province of New Brunswick, into the Bay of Fundy. It has a fall of 75 feet just after entering New Brunswick, and is navigable to that point by flat-bottomed boats, though the lower part of its course contains several rapids. Vessels of 50 tons go up to Fredericton. The *Miramichi* rises near the St. John, and, interlocking with some of its tributaries, affords a good navigable channel almost across the country.

The *St. Croix*, the outlet of the Grand, Unguemungag, and Schoodie lakes, forms the boundary between New Brunswick and Maine, and falls into Passamaquoddy Bay.

The *Penobscot* collects its waters from the northern part of the State of Maine, and has a course of about 300 miles into Penobscot Bay. It is navigable for the largest vessels to Bangor, 60 miles from the sea; above which point there is a fall of 60 feet; and the navigation even of the lower portion is closed for four or five months in the year by ice.

The *Kennebec* is the outlet of Moosehead lake in Maine, and flows south to the Atlantic. Its channel is interrupted by falls, and is navigable only for small vessels 50 miles up to Augusta, where the tide stops. Near its mouth it is joined by the *Androscoggin*, when the united stream takes the name of *Sagadahock*.

The *Merrimack* flows south through the middle of New Hampshire, into the Atlantic, below Newburyport, in Massachusetts. By the aid of short canal-boats are able to go up to Concord, the capital of the state.

The *Connecticut* rises in the north-east corner of New Hampshire, forms the boundary between that state and Vermont, and flows across Massachusetts and Connecticut into the eastern part of Long-Island Sound. There is a sand-bar at its mouth which impedes navigation; but notwithstanding vessels of 10 feet draft go up to Middletown; those of 8 feet, to Hartford, 50 miles from the sea; and smaller vessels proceed 14 miles farther to the head of the tide at Warehouse-point, at the foot of Enfield Falls. Above Enfield, the river has two other falls, at South Hadley and Montague, but is navigated by steam-vessels of light draft, which pass the falls by short canals. Higher up it is rendered navigable for boats to Bath, in North Hampshire, by means of locks and canals. Length of its course, 400 miles.

The *Hudson*, which rises in a marshy tract south-west of Lake Champlain, and has a southern course of 325 miles to New York Bay, is the only river of the Atlantic slope whose navigation is not terminated by its passage through the Appalachian mountains. Its head waters rise at an elevation of 4000 feet; but the bed of the river, in the lower part of its course, lies deep below the surface of the adjacent country, admitting the tide 160 miles up to Troy. It is navigable by sloops to Troy, and by ships to Hudson, which is only 30 miles lower down. Between 28 and 36 miles above New York, the Hudson forms an expanse like a lake, named the Tappan Sea, which varies in width from 2 to 5 miles; and, for 20 miles farther down, the channel is bordered on its western side by a range of perpendicular cliffs, which rise from 100 to 500 feet above the water, and are named the Palisades. The picturesque beauty of its banks, and the legendary and historical interests associated with numerous spots, combine to render the Hudson the classic stream of the United States. The *Mohawk*, its principal tributary, is a turbulent stream, which, in a course of 150 miles, falls more than 430 feet.

The *Delaware* rises in the Catskill mountains, in New York, is formed by two main branches, and flows southwards into the Atlantic, where it forms a wide estuary, below Philadelphia, near which it is joined by its principal tributary, the *Schuylkill*. It is navigable downwards by rafts and arks nearly from its source; but at Trenton the navigation upwards is stopped by a great fall, below which it meets the tide 14 miles from the sea. Sloops ascend to this point, and the largest ships reach Philadelphia, 35 miles below. The *Schuylkill* is navigable 6 miles to Philadelphia by ships of 300 tons; but above that the navigation is stopped by its great fall, and higher up by shoals and rapids.

The *Susquehanna* is a long and broad, but generally shallow river, with a course of about 500 miles, chiefly through Pennsylvania, into the head of the Chesapeake Bay. Its principal trunk is so much obstructed by bars, and broken by rapids, as to afford comparatively little aid to navigation, without artificial help; but, as there is nowhere any perpendicular fall, rafts and flat boats easily descend to Middletown, during the season of high water; and small steam-boats ply between Wilkesbarre and Owego.

The *Potomac* is formed by two branches, the most northerly of which rises in the great Back Bone mountain, at the west border of Virginia and Maryland, and the southern branch in Pendleton county, a little further south. It has a very crooked course of 400 miles into the Chesapeake, where its mouth is eight miles wide. Seventy miles up, the channel is still three miles wide, and at Alexandria, nearly 100 miles up, it is above one mile. Between Washington and the Chesapeake the depth varies from 18 feet to 120, but is generally about 30 or 40; above Washington it diminishes to 10 or 12. The tide flows to Georgetown, a little above Washington, and to that point the river is navigable for vessels of

moderate burden. Three miles above Georgetown is a series of rapids called the Little Falls; and a few miles higher up are the Great Falls, where the river descends 76 feet in the distance of a mile and a half, making in one place a perpendicular plunge of 15 feet. The Great Falls form one of the grandest scenes in the United States.

The *PATUXENT* flows through Maryland into the Chesapeake, in a course nearly parallel to that of the Potomac, about midway between it and the western shore of the Chesapeake. It is navigable 40 miles to Nottingham for vessels of 250 tons, and for large boats to Queen Ann, 15 miles farther up. Its mouth forms a wide estuary, 20 miles north of that of the Potomac.

The *RAPPAHANNOCK*, rising in the Blue ridge, in Virginia, receives the *Rapid-Ann* from the same chain; and, after falling over the primary ledge into the low country at Fredericksburg, where it meets the tide, 100 miles from its mouth, becomes navigable for vessels of 140 tons; larger vessels may go up 60 miles. In the lower part, however, of its course, it is rather an estuary than a river, expanding to a width of five miles before it joins the Chesapeake.

YORK RIVER, formed by the junction of the *Matapony* and the *Pamunkey*, in Virginia, partakes, throughout its whole course, rather of the character of a narrow bay than of an inland stream. At West Point, the place of confluence, 40 miles from the Chesapeake, it is from 2 to 3 miles wide, with 18 or 20 feet depth of water. The *Pamunkey* and the *Matapony* are both navigable by schooners about 40 miles from their mouths.

JAMES RIVER rises from the Alleghany mountains in the western part of Virginia, and emerges from the Blue ridge over the Irish Falls. After clearing the hills, it descends into the low country, at Richmond, by a fall of 70 feet in the distance of eight miles; below Richmond it gradually becomes wider and deeper, and, in the lower part of its course, expands into a long and spacious estuary, with sufficient depth for the largest ships. Vessels of 600 tons go up to City Point, 75 miles from the Chesapeake; vessels of 15 feet draught reach Warwick, 30 miles farther up; and, with the exception of a bar, on which there are only 10 feet, there are 13 feet of water from this point to Rockets, the port of Richmond; above which, the depth is only six feet. The tide flows to Richmond, 110 miles from the Chesapeake. Within the mouth of the estuary are *Hampton Roads*, a secure and spacious anchorage, sufficiently deep for the largest ships; and, connected with it, is the broad bay named *Elizabeth River*, which forms a capacious inner harbour.

Cape Fear or *Clarendon river*; *Chowan* or *Roanoke*; *Tar*, *Taw* or *Pamlico*, and *Neuse*, are all in North Carolina; but they, as well as all the other streams of that state, have short courses and shallow streams; though, by artificial means, some of them have been made navigable to some distance inland. Nearly the same character will apply to the numerous rivers of South Carolina and Georgia, the principal of which we shall therefore merely name, in their order, proceeding southward, viz. *Waccamaw*, *Little Pedee*, *Great Pedee*, *Lynche's river*, and *Black river*, all of which have a common estuary in *Winyaw Bay*, which opens to the Atlantic by *Georgetown Inlet*; the *Santee*; the *Cooper* and the *Ashley*, whose common estuary forms the harbour of Charleston; *Ponpon* or *Edisto*; *Combahee*; *Coscorus*; *Broad river*; *Savannah*, navigable for steam-boats of 150 tons burden, for 250 miles from the sea; the *Ogeechee* and *Canochee*, which fall into *Ossaba Sound*; *Altamaha*; *Turtle*; *Soilla*; *Satilla*; *St. Mary's*; and, in Florida, *St. John's*. The last is a somewhat important stream. It flows northward through the middle of Northern Florida, expanding into lakes, and forming at last a wide estuary from two to five miles wide. The bar at its mouth is never passable by vessels of more than 11 feet draught, although within the bar there are 15 feet water for 50 miles up the river. The other principal rivers of Florida are the *Oscilla* or *Auilla*; *St. Mark's*; *Ocklockonee*; *Apalachicola*, navigable for 100 miles; *Econfina*; and *Chocktawhatchee*; all of which flow into the Gulf of Mexico.

The *MOBILE*, in Alabama, is formed by the junction of the *Alabama* and the *Tombekbee* or *Tombigbee*, 50 miles above Mobile bay, in the Gulf of Mexico. A few miles below the junction it gives out a large branch, called the *Tensar*, which also receives an arm from the Alabama, and reaches Mobile bay below Blakely. The *Tombigbee* is formed by the confluence of two large streams, the *Tombekbee* from Mississippi, and the *Black Warrior* from the northern part of Alabama. It admits vessels drawing six feet water to St. Stephen's, 93 miles from the bay, and steam-boats of moderate burden to Tuscaloosa, on the eastern branch, 300 miles, and to Columbus, in Mississippi, on the western branch. The *Alabama* is formed by the junction of the *Coosa* and the *Tulapooza*, both of which have their sources in the western part of Georgia. It is navigable to Claiborne, 100 miles from the bay, by the same class of vessels that go up to St. Stephen's, and by the smaller steam-boats for some miles above the confluence, along both branches. The rivers of Alabama flow in deep beds, and rise at some places during the spring floods 50 or 60 feet above their low-water level. Their utility as navigable channels is much diminished by the excessive winding of their courses; and during six or seven months of the year the navigation is impeded, and for part of that period suspended, by the shoals and bars, which become impassable at low water.

The *PEARL RIVER*, in Mississippi, rises in the centre of the state, and flows through a populous and fertile region into the Rigolets or outlet of Lake Pontchartrain. Its mouth is obstructed by banks, besides which there are numerous shoals in the river; but steam-boats have ascended to Jackson, a distance of 200 miles, at high water.

The *SABINE RIVER* flows into the Gulf of Mexico, forming the boundary between Louisiana and the new republic of Texas. It is navigable about 300 miles upward, but its mouth is obstructed by a bar. Near its mouth it expands into a large lake, which is nearly filled up with oyster banks, and which also receives the waters of the *Rio Naches* from Texas, which is navigable for 100 miles.

The *Trinidad* and *San Jacinto* both fall into *Galveston Bay*, which forms their estuary; it is nowhere deep, and is crossed by bars with only five feet water in the highest tides. The main channel, however, through the outer bar, has a depth of 13 feet, and within it, contains secure anchoring ground in five fathoms. The *Rio Brazos de Dios* (God's arms) rises on the north-west border of Texas, and reaches the gulf, after a winding course of 600 miles. The *Rio Colorado* is little inferior to the Brazos, but is at present choked up by a jam of drift-wood about 10 miles from its mouth. The *Rio La Vaca*, of Matagorda bay; the *Guadalupe*, and the *San Antonio*, which unite before entering the basin of Espiritu Santo, and the *Nueces*, are inferior but navigable streams. The spacious but shallow bays which receive most of the rivers of Texas, and the mouths of those that enter the gulf directly, are barred by shifting sand-banks, through which the channels are often intricate, and seldom have more than 8 or 10, never more than 12 or 13 feet of water.

The *RIO BRAVO DEL NORTE*, called also the *RIO GRANDE* or *LARGE RIVER*, rises from the Sierra Verde in New Mexico, about 40° N. lat., and has a long south-easterly course into the Gulf of Mexico, where it forms the south-western border of the territory claimed by the Texans. It scarcely deserves the name which it bears, as, when compared with the principal rivers of America, it cannot be considered a great river. The lower part of its channel is generally only about 200 yards wide, and is so shallow, in many places, that vessels drawing 5 or 6 feet of water cannot ascend more than 100 miles in the ordinary state of the river. Its current is exceedingly rapid, and its banks steep. It is navigable at all seasons for steam-boats drawing 3 or 4 feet of water, as far as Camargo, about 200 miles from its mouth. Its whole course is estimated at 1400 miles.

The *Usamasinta*, a fine river of Central America, rises in the district of Peten in the province of Verapaz, near the source of the Belize, and flows northward to the Bay of Campeché, which it enters to the westward of the Lake of Terminos. Its principal mouth is at the port of Victoria.

The **RIO COLORADO** falls into the northern extremity of the Gulf of California, after a course of 640 miles; but its sources have not been explored. The depth at its mouth is not more than six feet, and the breadth scarcely exceeds 200 yards. Sixty miles from the sea it is joined by the *Rio Gila*, which rises from the Sierra Mongollon, in the Rocky Mountains, about $34^{\circ} 20'$ N. lat. The country through which these rivers flow is a sandy desert, destitute of good water, and subject to excessive heat.

The **OREGON or COLUMBIA RIVER** rises in the Rocky Mountains, about 51° N. lat., and has a westerly course of about 1000 miles into the Pacific Ocean, where it forms a wide estuary; but it is infested with breakers, and as the sea rushes over the bar with great violence, the ingress and egress are always difficult. About long. 121° W. it forms a great fall, where it descends in one rapid 57 feet; and soon after passes through a mountain chain, where its width is contracted to 150 yards. The tide at its mouth rises $8\frac{1}{2}$ feet, and ascends the stream 180 miles. Vessels of 300 tons may reach the Multnomah, about 60 miles below the great falls, and sloops go up nearly to the rapids. It abounds with the finest salmon, and with seals, whose skins form a principal article of export from the river.

FRASER RIVER rises from Moose Lake in the Rocky Mountains, and falls into the southern part of Quadra and Vancouver's Sound, or the Strait of Juan de Fuca.

The **MACKENZIE RIVER** issues from the great Slave Lake, and flows with a broad and majestic stream in a north-westerly direction to the Arctic Ocean. The Mackenzie may indeed be considered as only a continuation of the river *Athabasca* or *La Biche*, which rises at Mount Brown in the Rocky Mountains, between 55° and 56° N. lat., and flows into Lake Athabasca. The *Unigah* or *Peace River* also flows from a valley of the Rocky Mountains, partly into the same lake, and partly into the *Slave River*, which issues from it, and carries its surplus waters to the Great Slave Lake.

The *Coppermine River*, discovered by Hearne in 1771, falls into the Arctic Ocean at York Archipelago.

The *Thlew-ee-cho-deth* or *Great Fish River* has its source in Lake Sussex, N. lat. $64^{\circ} 26'$, W. long. $108^{\circ} 20'$, and flows to the north-east, falling into a gulf which opens to the Arctic Ocean in N. lat. 66° and W. long. 95° . Its stream is broken by many falls, and forms a number of considerable lakes. This river was first explored by Captain Back, in 1834.

The *Sakatchawan River* flows in two great branches from the Rocky Mountains eastward into Lake Winnipeg, which also receives the *Assiniboën*, *Moose*, *Red*, and *Winnipeg* rivers, from the south; and discharges its surplus waters by the *Nelson*, which enters Hudson's Bay at Fort York. The *Seyern* flows from Favourable Lake, and has a course of 250 miles N.E. to Hudson's Bay.

§ 2. Rivers of South America.

The **MARañON, ORELLANA, or RIVER of the AMAZONS**, is formed, in $5^{\circ} 18'$ S. lat., $73^{\circ} 50'$ W. long., by the union of two streams: the *Tunguragua*, which issues from the lake *Llauricocha* in Peru, within 60 miles of the Pacific Ocean, in $10^{\circ} 30'$ S. lat.; and the *Ucayali*, which is formed by the junction of the *Apurimac* and the *Paro*; the former of which has its sources in the mountains to the north-west of Lake Titicaca, and the latter, also named *Rio Beni*, issues from a small lake to the south-east of Titicaca. From the great confluence the Marañon flows, with various windings, in an easterly direction, entering the Atlantic Ocean under the equator, and in 50° W. long. The length of its course from the source of the Apurimac to the sea, including all its windings, may be estimated at 4700 miles. The Marañon is studded with islands, many of which are large; and at its mouth forms, with the Araguay, the large Islands of Joanes and Cayana. The mouth of its estuary is about 180 miles wide, and the rise of the tide is felt at Obidos, 400 miles inland. Two days before and after full moon the water rushes into it from the ocean, with prodigious force and noise, in two, three, and sometimes four successive waves, each presenting a perpendicular front of 10 to 15 feet. This great river and its tributaries afford perhaps the greatest extent of inland navigation in the world. The Marañon itself is navigable for 2000 miles in a direct line from the ocean. Its channel is deep, uninterrupted by cataracts or rapids, and may be navigated by ships of any burden up to the confluence of the Tunguragua and Ucayali, where, in March 1836, no bottom was found with 35 fathoms or 210 feet. During the swell in the rainy season, the current is rapid; but at other times it may be stemmed not only by steam vessels, but also by the aid of the east wind, which blows without interruption. The ordinary rate of the current is about $3\frac{1}{2}$ miles an hour when the river is full, but it is less in the dry season. At Jaen, 78° W. long., the bed of the river is only 1240 feet above the level of the sea, so that the fall is less than 6 inches a-mile. The country through which it flows is almost in a state of nature, consisting of boundless savannahs and immense forests, which afford cover and subsistence to innumerable wild beasts and reptiles. During the rainy season a great extent of low country, on both sides of the river, is laid under water; and so vast is the mass of water which it pours into the ocean, that its current has been distinctly felt 300 miles from land. Its mouth was discovered in A. D. 1500, by Vincent Yanez Pinzon, one of the captains who sailed with Columbus on his first voyage; and in 1539 its stream was traced downward from Peru by Francisco Orellana, a Spanish adventurer, by whose name it is sometimes called. The Spaniard has been almost deprived of the honour by his having reported that he had met with armed women on its banks, on which account it received the name of the river of the Amazons, which seems now to be the most generally adopted, though it is a pity that geographers would not agree to drop both Amazon and Marañon, and give the river the more sonorous name of its first explorer, Orellana. Its principal affluents on the right are: the *Yacari*, which is navigable for large boats 200 miles; the *Jutay*; the *Jurua*; the *Tefe*; the *Coary*; the *Purus*; the *Madeira*, a very large river, with a course of 1800 miles, deriving its waters from a wide extent of country between 12° and 20° S. lat., and 58° and 68° W. long.; the *Tapajos*; the *Xingu*; and the *Harapuy*: on the left, the *Napo*; *Putumayo* or *Ica*; the *Japura* or *Jupura*; the united stream of the *Negro* and *Branco*, the former of which communicates with the Orinoco by means of the Casiquari, an affluent of the latter. At its mouth the Amazon communicates by a branch round the south side of the island Joanes, with the *Rio Para*, a stream nearly as large as itself, formed by the junction of that branch with the *Araguay*, a large river which drains the central portion of northern Brazil. From the right the Araguay receives from the same region the large river *Tocantins*.

The **RIO DE LA PLATA** (Silver River) is merely the estuary of the rivers Parana and Uruguay. The *Parana* has its sources in the north-western slopes of the mountains which skirt the coast of Brazil from Rio Janeiro to the island of St. Francisco; and flowing to the south-west receives, near Corrientes, the great river *Paraguay*, which has its sources on the southern slope of the watershed which separates the basins of the Amazon and the Plata, in the south-west part of Brazil, and collects in its progress southward the waters of many large streams, the principal of which are the *Pilcomayo* and the *Vermejo* or *Rio Grande*, from Upper Peru. From Corrientes the united stream of the Paraguay and the Parana flows southwards into the estuary, receiving from the right the *Rio Salado* (Salt River.) The *Uruguay* rises from the Brazilian mountains, to the westward of St. Catherine's Island, and meets the Parana at the head of their common estuary, the Plata. These streams pour down an immense volume of water, which inundates the low country along their banks from February till May. In the lower course of the Parana the water rises generally 12 feet above the lowest level, and leaves a deposit of grey silty soil, which is very favourable to vegetation. About 48,000 square miles of

country are said to be subject to these periodical inundations. Before it meets the Uruguay, the Paraná divides into numerous branches, forming so many islands; and most of the channels are navigable for boats. The estuary gradually increases from a breadth of 25 miles, till it opens out to the ocean, between Monte Video and Las Piedras, where it is 53 miles wide; the water is generally fresh, and its influence is felt 100 or 150 miles out at sea.

The *ORINOCO* rises in a mountainous region in the centre of Spanish Guiana, and flows with a very circuitous course through that province into the Atlantic Ocean, which it enters by a great number of mouths opposite the island of Trinidad. The current of the river, in the upper part of its course, is generally very rapid; and even at Angostura, 280 miles from its mouth, it runs with great rapidity, especially at the time of floods, when it is said to flow at the rate of eight miles an hour. The most southerly and widest of its deltaic branches, named the *Boca de Nariros*, has a bar of 17 feet water, and the tide ascends to Angostura. In the upper part of its course the Orinoco sends off a branch, the *Casiquari*, which has a course of 150 miles, and joins the Río Negro, an affluent of the Amazon, thus forming a navigable communication between the two great rivers.

The *MAGDALENA* rises near 2° N. lat., and flows northward through a long valley into the Caribbean Sea, near Santa Marta, after a course of 840 miles. Its principal affluents are the *Río Cauca* from the left; the *Sogamozo* and the *Canaveral*, from the right.

The *Río Atrato* collects the waters of several mountain valleys to the eastward of the isthmus of Panama, and flows northward into the Gulf of Darien.

The *Guarapiché* falls into the Gulf of Paria. Its course is only about 100 miles, but it brings down a great body of water, and is navigable almost to its source.

The *Essequibo*, with its affluents the *Massarony* and the *Cuyurini*, the *Berbice*, *Demerara*, *Surinam*, *Marowine* or *Maroni*, and *Corentyn*, all flow into the Atlantic, in Guiana, between the mouths of the Orinoco and the Amazon; but, though generally navigable for some distance inland, they are comparatively unimportant.

The *RIO DE SAN FRANCISCO* rises from the northern declivity of the Sierra dos Vertentes, about 3000 feet above the level of the sea, near 20° S. lat., and flows in a north-easterly direction into the Atlantic Ocean, in 11° S. lat. It is navigable, without interruption, for about 200 miles from the sea; farther up, though still navigable to a considerable distance, the navigation is much interrupted by rapids and falls. It enters the sea by two mouths of unequal size, of which the northern and larger is about two miles wide; but has so little depth that only vessels of 60 tons burden can enter it at high-water.

In the country to the south-west of the Plata are several rivers, which do not reach the sea. The *Rio Dulce* (fresh water river) rises with several branches in the Andes of Despoblado, and flows in a direction nearly parallel to the course of the Río Salado, an affluent of the Paraná, for about 350 miles into the salt lake *Salagos de los Parangos*. The others are the *Rio Cuarto*; the *Rio Quinto*; the *Desaguadero* of Lake Silvero; the *Rio Tunuyan*, named in the lower part of its course *Nuevo*, and after its junction with the *Diamante*, *Rio Salado*, and which terminates in a bitter lake named *Urre-luquen*, after being joined by the *Chadi-Cubu*. The *Cobu-Leubu* rises from the southern side of the Descabezado peak in Chili, and flows in a south-east direction into the Atlantic, in 39° 50' S. lat. The *Cusu-Leubu* or *Rio de Negro*, is formed by the union of the *Neuquen* or *Rapido River* and the *Lemay Leubu* or *Rio de la Encarnacion*, which flows from the lake of *Sahuelhuapi*, in 72° W. long., and 39° S. lat. The united stream flows eastward into the Atlantic, near the north-eastern shore of the gulf of St. Matthias. The *Rio de Santa Cruz* flows from the Lake *Capar* or *Viedma*, and after being joined by the *Chalia* and the *Chico*, forms the harbour of Santa Cruz, in the Atlantic Ocean, opposite the Falkland Islands.

The rivers on the west coast having very short courses, are unimportant. The principal of them, proceeding northwards, are: the *Penon*, *San Luis*, *Osorno*, which drains the large lake of Huenuca; *Tolten*, *Cauten* or *Imperial*, *Biobio*, at Concepcion; *Itata*, *Maulé*, *Rapel*, *Maypu*, *Aconcagua*, *Quilimari*, *Huantilauque*, *Limari*, *Coquimbo*, *Huasco*, *Copiapó*; all in Chili.

LAKES.—North America is pre-eminently the country of lakes, and exhibits masses of fresh water, unequalled in any other part of the world. The lakes of Canada are the most remarkable as well for their extent as for their utility as channels of navigation; and form just so many large inland seas. *Lake Superior*, measured on a curve line passing through its centre, has a length of 420 miles, an extreme breadth of 165, and a circuit of about 1750, following the windings of the coast. Its surface is 623 feet above the level of the sea; but as its depth varies from 500 to 900 feet, and is even supposed to be in some places 1200 feet, its bottom lies far below the level of the ocean. The area of the lake contains about 40,000 square miles; that of the basin which it drains by means of 220 rivers and brooks, amounts to 100,000. Some of these rivers are considerable streams, and, though the sources of few of them are more than 50 or 70 miles from the lake, yet their winding channels are often double that length. Their sources are in general 500 or 600 feet above the surface of the lake, and their currents are much broken by rapids and falls. There is no regular rise and fall of the waters of the lake, but the continued prevalence of a heavy gale from a particular quarter sometimes raises them several feet, and the surface is perceptibly higher during the spring freshes after a severe winter. The water is very pure and cold; the bottom consists of an adhesive clay. The northern shore consists of lofty rocks, from 300 to 1500 feet high, and is lined with numerous islands which afford shelter for vessels. The southern coast consists chiefly of low, sandy beaches, interrupted by limestone cliffs, and destitute of sheltered bays. The only islands, except those on the coasts, are those of *Michipicoten* or *Maurepas*, and the *Caribou Islands* in the eastern portion, belonging to Britain, and *Isle Royale* in the western part, which belongs to the United States.

LAKE HURON receives the surplus waters of Lake Superior through the river St. Mary, which is about 30 miles in length, with a fall of 30 feet, 2½ of which occur at the Sault or Rapids of St. Mary, extending over a space of two miles. The greatest length of the Lake Huron from the mouth of the St. Mary to the outlet of its waters, is 250 miles; its greatest breadth in the northern part, is 220, but in the southern part it is much less; its circuit is about 1200 miles; its area, 25,000 square miles; its surface, 595 feet above that of the ocean; and its depth about 450 feet. The shores on the west and south-east are low, and little broken, forming long regular curvatures; while in the north-east and north they are high and indented. The long chain of the *Manitoulin islands*, which stretches from the mouth of the St. Mary to within 10 miles of Cabot's head, has the same geological character, and exhibits the same broken appearance as the northern coast. These islands almost completely divide the great expanse called the *Georgian Bay*, from the body of the lake. On the west side of the lake is a large inlet named *Saginaw Bay*.

LAKE MICHIGAN lies on the same level with Lake Huron, and is, indeed, properly a part of it, the two lakes being connected by the *Strait of Michilimackinac* or *Mackinaw*, which is four miles wide at the narrowest part. The form of the lake is elliptical, and in general quite regular, the coasts extending in long uninterrupted sweeps. The length is about 300 miles, the breadth from 80 to 90; the area 25,000 square miles; and the greatest depth about 900 feet. *Green Bay*, on the west side, is nearly detached from the body of the lake by a long peninsula and several islands. The shores are generally low, and their regular conformation almost deprives the lake of natural harbours. The outlet of lake Huron is called the *River of St. Clair*; which, after a course of about 30 miles, expands into a shallow lake of the same name, about 100 miles in circumference. The outlet of this lake is the river *Detroit*, 30

miles in length, which falls into lake Erie. These two rivers with the intervening lake are navigable for vessels of 7 or 8 feet draught; their banks are low and level.

LAKE ERIE is 265 miles long by 63 in breadth at the middle; its surface is 565 feet above the level of the sea, forming an area of 11,000 square miles; but its depth does not much exceed 100 feet. The shores are low, the northern consisting of sandy beaches and clay banks; and the southern, chiefly of shingle beaches or sand-banks, interrupted by rocky cliffs. Towards the west there are extensive marshes on both sides. The want of sheltered bays on both coasts has rendered it necessary to resort to pier harbours; the mouths of the rivers are also obstructed by sand-bars. The islands, 26 in number, are all in the south-western portion of the lake. The largest are *Pelee*, belonging to Canada, and *Cunningham*, to the United States. The *Bass Islands*, a group of small islands, valuable for the shelter and anchorage which they afford, are within the American limits. The winds are generally up or down the lake, and in summer blow up for two-thirds of the season. Violent and dangerous gales prevail in autumn and winter, and the lake is usually covered with floating ice till May. The river *Niagara*, 33 miles in length, forms the outlet of Lake Erie, and has a descent of 334 feet to Lake Ontario. Of these, 165 form one perpendicular fall, and 51, the descent of the Rapids in the half mile immediately above the falls. Below the falls the *Niagara* flows through a deep rock-bound chasm, the sides of which are formed by mural precipices, nearly 300 feet high, as far as Queenstown, where the ground sinks down almost to the level of the river. The great fall, 20 miles from Lake Erie, is divided by Goat Island into two portions, one of which, named the Horse-shoe fall, from its semicircular form, has a lineal extent of 600 yards, on the Canadian side; the other, an extent of 300 yards, on the American side. For grandeur and sublimity, the *Falls of Niagara*, are hardly equalled, certainly not surpassed by any other natural scene in the world. President Dwight of Newhaven estimates the quantity of water precipitated over the Falls at 11,299,375 tons an hour; Parby, at 1,672,704,000 cubic feet, per hour; and Picken, at 113,510,000 gallons, or 18,524,000 cubic feet, a minute. The river contains several islands, one of which, named *Grand Isle*, contains 18,000 acres of rich fertile soil covered with forests; and another, *Nary Island*, which acquired some notoriety in the late Canadian insurrection. Grand Isle is on the American, Navy Isle on the Canadian side.

LAKE ONTARIO is about 200 miles in length; its greatest breadth is 60; its circuit, 470; its area, 10,000 square miles; its surface, 231 feet above the level of the sea; its depth from 300 to 600 feet. The shores are generally low; but, between Toronto and the Bay of Quinte they are higher. The lake has but few natural harbours; those of Toronto and Kingston on the north, and Sackett's harbour on the south-east, alone are good. There are about 20 small islands in the eastern part of the lake. Its great depth renders it less liable than Lake Erie to be obstructed by ice. It emits its surplus waters by the river *Kataragui*, and the *Lake of the Thousand Islands*, which afterwards become the St. Lawrence.

The other principal lakes of Canada are: *St. John's*, north of Quebec; *Nipissing*, *Mississauga*, *Muskoka*, *Trading*, *Simcoe*, *Cameron's*, *Sturgeon*, *Pigeon*, *Shemong*, *Trout*, *Rice*, *Ridau*, *Mississippi*, in Upper Canada. The British territory to the north-west of Canada, contains a great many other lakes, of which it may be sufficient to mention the names and dimensions of the principal, viz. The *Lake of the Woods*, west of Lake Superior; *Winnipeg*, 280 miles long, breadth varying from 15 to 80; area, 9000 square miles; *Winnipegosis* or Little *Winnipeg*; *Athabasca*, 3000 square miles; *Great Slave Lake*, 12,000 square miles; *Great Bear Lake*, 8000 square miles; *Wollaston Lake*; *Deer Lake*; *Big Lake*; *Abbitibi* and *Mississin*, to the south and south-east of James' Bay.

In the United States: *Lake Champlain*, between New York and Vermont, 120 miles in length, from 1 to 15 in breadth; area 500 square miles; 90 feet above the level of the sea. It is deep enough for the largest vessels, but is commonly navigated by ships of 70 or 80 tons, which can get access to the rivers and canals. It contains more than 50 islands, and the aspect of its shores is varied and pleasant. It is connected with the Hudson river by a canal, and discharges its surplus waters by the *Richelieu*, which flows to the St. Lawrence. *Lake George*, 36 miles long, and from three-quarters of a mile to 4 miles broad, studded with several hundred islands, is remarkable for the purity of its water and the beauty of its scenery, and has an outlet 3 miles long, with a rapid descent of 200 feet down to Lake Champlain. Along the south side of Lake Ontario, within from 20 to 60 miles, are the Lakes *Oneida*, *Otego*, *Skaneateles*, *Owasco*, *Cayuga*, *Seneca*, *Crooked*, *Candaugua*, *Honeoye*, *Hemlock*, and *Canesus*; all in New York. *Cayuga* and *Seneca* are the principal, the former being 36 miles in length, and the latter 35; but both very narrow. In the western part of the same state is Lake *Chateauque*, a small but deep and navigable body of water, 1300 feet above the level of the sea. It has been estimated that one-sixth part of the surface of the State of Maine consists of water; and, indeed, the lakes are so numerous as to form one of the characteristic features of the country. Some of them are remarkable for the picturesque beauties of their scenery, and many of them will be useful channels of communication when the neighbourhood becomes more densely inhabited. In the north are the *Temiscouata*, the *Baamchenungamook*, and the *Pongokwahem*; in the centre are *Moosehead Lake*, 50 miles long, but of very irregular breadth, *Chesuncook*, 20 miles long, and *Penadumcook*. The *Moose-tognaguntic* and the *Umbagog* are on the western frontier, and the *Schoodic* and *Upper Schoodic* on the eastern. In New Hampshire are a great many small lakes; the largest and most important of which is *Winnipisogee*, a picturesque sheet of water of very irregular form; 22 miles in length, and from 2 to 10 in breadth. About 300 pretty islands are scattered over it, and its shores are indented by beautiful bays, formed by gentle swells of land rising gracefully from the water. The lake abounds in fish; and is navigated by steam vessels. Lake *Memphramagog*, partly in Vermont and partly in Canada, is 40 miles in length by 2 or 3 in width, and surrounded by a tract of fertile level country. Novaculite or oil stone is found on an island of the lake, and sold under the name of *Magog* oilstone. The lake discharges its waters by the river St. Francis, which falls into the St. Lawrence 40 miles above Quebec. In Louisiana are the great lakes of *Pontchartrain*, *Borgne*, *Onchan*, *Grand*, and others, formed by the waters of the Mississippi; *Bodeau*, *Cado*, *Bistinoe*, *Carnissia*, *Bayou-Pierre*, *Spanish*, *Black*, and others, formed by the Red River and its branches. In Wisconsin is Lake *Winnipeg*, formed by the Fox river, which falls into Green Bay in Lake Michigan; the *Four Lakes*, in Dane county; *Kushkanong*, in Jefferson county, and *Geneva*, in Walworth county; *Red Lake*, near Red River, in the northern part of the territory.

The *TULE LAKES*, in California, extend in the direction of the coast, from south-east to north-west for about 200 miles; they are said to be fordable at several places, in the dry season; and, during a considerable part of the year, very little, if any, water runs into the Bay of St. Francisco, which receives the river that issues from their north-western extremity. The four lakes of *Zumpango*, *Christoval*, *Tezcuco*, and *Chalco*, are small bodies of water in the elevated plain of Mexico; but the largest lake in the country is that of *Chapala*, in the plain of Xalisco, which is traversed by the river Santiago. It is about 90 miles long, and from 12 to 18 wide. It is a lake in Guatemala, about north lat 16° 8', and west long. 91° 16', is 30 miles long by 6 broad, containing 11 islets, and surrounded with lands fertile in the extreme. *Golfo Dulce*, also in Guatemala, 28 miles long by 12 broad.

The *LAKE of NICARAGUA*, in Central America, between 10° and 12° N. lat., and 84° and 86° W. long., is 120 miles long, and 40 in breadth. At a little distance from the shore it is from 6 to 20 fathoms deep, and in some places more: it contains several islands, chiefly of volcanic formation; the most remarkable of which is *Ometepe*, not far from the south-west shore, which contains a lofty volcano. The surface of the lake is 134 feet above the level of the sea. It discharges part of its waters by the river *Tepitapa*, into the *Lake of Managua*, which is 45 miles long, and 15 wide, and deep enough

for large vessels, but has no outlet. The greater part, however, of the waters of Nicaragua flow to the Caribbean Sea, by the Río de San Juan, which is about 120 miles in length. Both the lake and the San Juan are navigated by small river barges of about two tons burden.

The LAKE OF MARACAIBO, near the northern coast of South America, is 120 miles in length by 80 in breadth. It receives the waters of nearly 100 rivers, and communicates with the Gulf of Maracaibo by a channel 12 miles long, and 3 miles wide where narrowest. A bar runs across the entrance, with only 10 or 12 feet water. The lake has a considerable depth, except towards the shores; the water is fresh, except during strong northern breezes, when it becomes brackish towards the northern end.

The LAKE OF TITICACA, in Upper Peru, occupies the lower portion of an elevated valley, about 13,000 feet above the level of the sea, and extends about 300 miles in length, by from 30 to 60 in width. The lake covers a surface of about 4000 square miles; and from its southern extremity issues a stream called the Río Desaguadero, which flows south-south-east, with a gentle current along the valley, and is lost in swamps and lakes near 19° S. lat. The surface of the lake, according to Mr. Pentland, is 12,795 feet above the level of the sea.

The Lake of *Xarayes* is only an immense swampy plain, along the river Paraguay, between 15° and 20° S. lat., reaching in some places 100 miles in breadth from the river. It is overflowed for about six months during the rainy season. A considerable portion of it is covered with a kind of wild rice, on which innumerable flocks of water-fowl, especially geese, feed. To the westward are a number of lakes called the *lagunas* in the country of the Chiquitos, which are also supposed to derive their waters from the overflowing of the Paraguay. The lake or lagoon of *Ybera* is a similar swamp, extending in width about 30 leagues parallel to the course of the Paraná, to the eastward of Corrientes. Spreading far and wide to the south it occupies an area of about 1000 square miles, and supplies four considerable rivers. Its surface is covered with a prodigious quantity of aquatic plants and shrubs. The celebrated lake of *Parima*, in Guiana, is represented by the small lake of *Amucu*, only about three miles in length, and almost covered with rushes; but expanding, in the rainy season, to an inland sea.

The *Lagunas de Guanacache*, a singular chain of lakes, formed by the confluence of the rivers of Mendoza and San Juan, which form the drains of the eastern side of the Andes, between 58° and 34° S. lat. The Guanacache emits its waters by the river *Tres Cruces*, which carries them to *Lake Silvero*, from which they are again carried by the *Desaguadero* into a vast lake named the *Benedero*, below the town of San Luis, in 34° S. lat. This lake also receives a portion of the waters of the river *Tunuyan*, the greater part of which, however, now flow by a new channel called the Río Nuevo into the Río Diamante. The last named river flows from the Andes, and, after being joined by the Río Nuevo and the Chadi-Cubu or Salt River, terminates in a great inland lake, without outlet, called the *Urre-laguen*, or Bitter Lake, from its extreme saltiness. This lake is situated about 35° S. lat., and 66° W. long.

GEOLOGY.—The geology of the South American mountains, particularly of the Andes, is distinguished, like their physical form and arrangement, by some remarkable peculiarities. The first and most peculiar feature of this chain is, that it contains at least 30 active volcanoes, irregularly distributed along the line from the one extremity to the other; but chiefly in Chili and Equador. Some of them only emit smoke; others throw out mud and water; only a few produce lava. The second peculiarity in their structure is closely connected with the first: it is the prodigious space occupied by the basalts, porphyries, and trachytes, that is, by rocks of igneous origin. The base of the chain consists of granite, which may be conceived as forming a long elevation of from 5000 to 10,000 feet. Overlying that are beds of gneiss, mica slate, clayslate, and greywacke; but they are seldom all together, and probably in most places rest on the sides of the granite, without covering its summit. Above these, sometimes in beds, but more frequently in amorphous masses rest immense deposits, first, of an old porphyry, next, of a newer porphyry rich in metals, then of basalt, clinkstone, and amygdaloids, with masses of trachyte and syenite interspersed. This order, however, must not be understood as uniform or perfectly determined. These volcanic rocks, which occupy a trifling space in Europe, and never occur at great elevations, form almost every where the summits of the Andes, and exhibit in some places the enormous thickness of 10,000 or 12,000 feet; constituting probably one-third of the bulk of the whole chain. On the flanks of the Andes are found vast beds of sandstone and coal, of limestone containing fossil shells, and of other secondary formations up to the green sand. Shells and coal have been found at the height of 14,000 feet, and gypsum and rock-salt occur at various elevations. The third peculiarity of the chain, is the abundance of its mineral treasures, which include extremely rich veins of gold, silver, copper, and most of the other metals. The Andes are also distinguished by having their sides invested with a thick coat of clay, in which deep gullies have been worn by the streams. The great diffusion of internal fire throughout the chain, the newness of some of the strata, the frequency of earthquakes, and the recent elevation of part of the western margin in Chili, to the height of three or four feet above its former level, have led geologists to infer that the Andes, though surpassing most other mountains in elevation, are among the last which have been raised from the bottom of the ocean.

The transverse chain of the coast of Caraccas consists partly of primitive, and partly of secondary formations. The cordillera of Parimé, so far as hitherto examined, is wholly composed of primitive rocks, as granite, gneiss, mica slate, and hornblende; the cordillera of Chiquito, which separates the basins of the Plata and the Amazon, is only known at its eastern extremity, where it joins the mountains of Brazil. These last consist of a great number of ridges generally running north and south. Granite abounds in those nearest the Atlantic; but the prevailing rock

every where else, as far westward as the mountains of Cujaba, 55° W. long., is a quartz mica slate, intermixed with granite, gneiss, and quartz rock, with portions of secondary sandstone resting on its sides, or in its valleys. This quartz mica-slate, in Brazil, is the matrix of the gold and diamonds; the former of which is generally accompanied by platinum and iron. The direction of the strata approaches to north-east and south-west, and the dip, where it has been observed, is from 50° to 70° S.E. These mountains, like the Andes, are in many parts covered with a bed of clay. The rocks of the great plains have been but partially examined. Humboldt thinks that the northern *llanos* of Caraccas are of old red sandstone. Marls and clays, apparently of the tertiary class, were found by Mr. Caldeleugh in the *pampas* of Buenos Ayres; and, since deposits of rock salt exist on the east side of the Andes, it is probable that the whole plain of the Plata is occupied by secondary and tertiary formations.

In North America the Alleghany mountains present their scarp or steepest side to the east, where granite, gneiss, and other primitive rocks are seen. Upon these lie, first, a thin formation of transition rocks dipping to the westward; and, next, a series of secondary rocks, including a very extensive coal formation, which reaches from Pittsburg to far beyond the Mississippi. The Ozark mountains exhibit similar strata in the same order and position; and therefore probably consist of a western portion of the same beds raised to the surface by a slip or dislocation. In the rocky mountains, primitive rocks are found in the centre or axis of the chain, with old red sandstone, coal, and new red sandstone, containing rock salt, leaning against its sides. A great tract to the eastward of this chain is covered by granitic sands, and, near the bed of the Mississippi, there is a deep formation of alluvium. The Mexican table-land consists chiefly of transition slaty rocks, intermixed with which are two species of limestone, and enormous masses of porphyry, trachyte, syenite, phonolite, basalt, volcanic tuff, and other rocks of igneous origin. The veins of silver and gold are found chiefly in the older porphyry, the granular limestone, the syenite, and the transition slates.

TABLE OF THE MINERALOGICAL PRODUCTIONS OF AMERICA.

DIAMONDS.—Brazil, *Minas-Geraes*, &c.
OTHER PRECIOUS STONES.—Brazil, *Minas-Geraes*, &c.; Colombia, *Cundinamarca*; Chili; Peru.
GOLD.—Colombia, *Andageda*, *Atrato*, *San Juan*, *Cauca*, *Choco*, &c.; Brazil, *Minas-Geraes*, *Goyaz*, and *Matto Grosso*; Mexico, *Pinieria-alta* in *Somora* and *Sinaloa*; Chili; Peru; Bolivia; United States of North America, *Anson County*, *North Carolina*, *Davidson County*, *South Carolina*; Central America.
SILVER.—Mexico, *Guanazuato*, *San Louis Potosi*, *Zacatecas*, &c.; Bolivia; Chili; La Plata, *Mendoza*; Central America.
TIN.—Peru; Mexico.
MERCURY.—Peru; Mexico.
COPPER.—Chili; Peru; Mexico; United States, *New York*, *Indiana*, &c.
LEAD.—United States, *Galena*, in *Illinois*, *Washington County*, *Missouri*, *New York*, &c.; Mexico.
IRON.—United States, *New Jersey*, *Pennsylvania*, *Massachusetts*, *Connecticut*, *South Carolina*, *New York*, *Maryland*; Mexico; Brazil, *St. Paul*, *Minas-Geraes*, &c.; Canada, *Mines of St. Maurice*; Colombia; Central America.
COAL.—Cape Breton; Nova Scotia; United States, *Pennsylvania*, &c.; Chili, *Penco*.
SALT.—La Plata; Brazil, *Rio Grande do Norte*, *Para*, &c.; United States, *Onondaga County*, *New York*, *Barnstable County*, *Massachusetts*, *Kentucky*, *Gallatin County*, *Illinois*, *Missouri*, &c.; Central America *Honduras*, &c.; Colombia, *Zipaquira*, &c.; Mexico, *Oaxaca*, *New California*; Peru; Bolivia, *Yocalla*, *Chiquitos*; Bahamas, *St. Kitts*, and others of the Antilles.

CLIMATE.—The latitude of the country and the elevation of the land in both divisions of the continent, its position in reference to the sea, and the direction of the prevailing winds, are the chief circumstances which determine the nature of the climate. We have already stated that three-fourths of South America lie within the tropics, and the remaining fourth in the temperate zone; but, in both of these divisions, it might be naturally inferred, that a huge wall like the Andes, rising into the atmosphere to the height of two or three miles, and stretching across the course of the tropical and extra-tropical winds, would exert a powerful influence on the temperature, humidity, and the distribution of the seasons. This is actually the case; and it is this vast chain of mountains, with its prolongation in North America, which affords a key to the most remarkable peculiarities in the climate of the whole continent. The subject, we think, has not been hitherto well understood, though it admits of being explained in a very simple manner.

The trade-winds, which blow from the east, occupy a zone 60° in breadth, extending from 30° S. to 30° N. lat. Beyond these limits the winds are variable; but the prevailing direction of their course in the open sea, where no accidental causes operate, is well known by navigators to be from the west. Now these winds are the agents which transport the equable temperature of the ocean, and the moisture exhaled from its surface, to the interior of the great continents, where it is precipitated in the form of

rain, dew, or snow. Mountains attract the moisture which floats in the atmosphere; they obstruct also the aerial current, and, presenting great inequalities of temperature, favour precipitation. Rain, accordingly, in all countries, falls most abundantly on the elevated land. Let us consider, then, what will be the effect of a mural ridge like the Andes in the situation which it occupies. In the region within the 30th parallel, the moisture collected by the trade-winds from the Atlantic will be precipitated in part on the mountains of Brazil, which are but low, and are so distributed as to extend far into the interior. The portion which remains will be borne westward, and, losing a little as it proceeds, will be arrested by the Andes, and fall down in showers on their summits. The aerial current will now be deprived of all the humidity which can be separated from it, and will arrive in a state of complete exsiccation at Peru, where no rain will consequently fall. That even a much lower ridge than the Andes may intercept the whole moisture of the atmosphere, is proved by a well-known phenomenon in India, where the Ghauts, a chain only 3000 or 4000 feet high, divide summer from winter, as it is said; that is, copious rains fall on their windward side, while on the other the weather remains clear and dry; and the rains regularly change from the west side to the east, and *vice versa*, with the monsoons. In the region beyond the 30th parallel, this effect will be reversed. The Andes will in this case serve as a screen to intercept the moisture brought by the prevailing west winds from the Pacific Ocean; rains will be copious on their summits, and in Chili on their western declivities, while none will fall on the plains to the eastward, except occasionally, when the winds blow from the Atlantic. The phenomena of the weather correspond in a remarkable manner with this hypothesis. On the shores of the Pacific, from Coquimbo, at the 30th parallel, to Amotape, at the 5th of S. lat., no rain falls; and the whole tract is consequently a sandy desert, with the exception of the narrow strips of land skirting the streams that descend from the Andes, where the soil is rendered productive by irrigation. From the 30th parallel southward the scene changes. Rains are frequent; vegetation appears on the surface, and becomes more vigorous as we advance southward. "At Concepcion," says Captain Hall, "the eye was delighted with the richest and most luxuriant foliage; at Valparaiso the hills were poorly clad with a stunted brushwood and a poor attempt at grass, the ground looking starved and naked; at Coquimbo the brushwood was gone, with nothing in its place but a vile sort of prickly pear bush, and a thin sprinkling of grey wiry grass; at Guasca (lat. 28½°) there was not a trace of vegetation, and the hills were covered with bare sand." It follows from the principle we have laid down, that in this southern part of the continent the dry tract should be found on the east side of the mountains, and such is the fact. At Mendoza, in lat. 30°, rain scarcely ever falls; and the district along the eastern base of the Andes is known to consist chiefly of parched sands, on which a few stunted shrubs grow, and in which many of the streams that descend from the mountains are absorbed before they reach the sea. The whole country, indeed, south of the Plata, suffers from drought; but on the eastern side this evil is remedied to some extent by winds from the east or south-east, which bring occasional rains to refresh the soil. From Amotape northward, on the other hand, the west coast is well watered and fertile; and this change is easily accounted for. The line of the coast here changes its direction, and trends to the north-east as far as the Isthmus of Panama, where the mountains sink to a few hundred feet in height, and leave a free passage to the trade-wind, which here often assumes a direction from the north-east, or even the north. The exhalations of the Atlantic are thus brought in abundance to the coast of Quito, which is in consequence well watered; while the neighbouring district of Peru suffers from perpetual aridity.

Our principle applies equally to the explanation of some peculiar facts connected with the climate of North America. The western coast of Mexico, as far as St. Blas or Mazatlan, in lat. 23°, is well watered, because, *first*, the continent here is narrow; *secondly*, the table-land of Mexico, which is much lower than the Andes of Chili, is not so effectual a screen to intercept the moisture; and, *thirdly*, there is reason to believe that a branch of the trade-wind, which crosses the low part of the continent at Panama and Nicaragua, sweeps along the west coast during part of the year, and transports humidity with it. But beyond the point we have mentioned drought prevails. Sonora, though visited occasionally by rains, consists of sandy plains destitute of herbage, where the streams lose themselves in the parched soil without reaching the sea; and even Old California, which has the ocean on one side, and a broad gulf on the other, and ought apparently to be excessively humid, is covered with sterile rocks and sandy hills, where the vegetation is scanty, and where no timber is seen except brushwood. This dry region extends as far as 33° or 34°; but immediately beyond

this we have another change of scene. New California is described as in all respects a contrast to the Old. It is rich, fertile, and humid, abounding in luxuriant forests and fine pastures; and the American possessions to the northward preserve the same character. How can we account for this singular diversity of climate, except on the principle which has been explained, namely, that in all regions where ranges of mountains intersect the course of the constant or predominant winds, the country on the windward side of the mountains will be moist, and that on the leeward dry; and hence parched deserts will generally be found on the west side of countries within the tropics, and on the east side of those beyond them? Our hypothesis applies equally to the country east of the Rocky Mountains. For the space of about 300 miles from the base of this chain, the surface of the country consists of dry sands or gravel, sometimes covered with saline incrustations, nearly destitute of trees and herbage, and watered by streams flowing from the mountains, which are sometimes entirely absorbed by the arid soil. The central and eastern part of the basin of the Mississippi would in all probability have been equally barren had the configuration of the land been a little different in the south. A tract of country extremely low and level extends along both sides of this river; and a portion of the trade-winds, which blow from the Mexican Gulf, finding its motion westward obstructed by the high table-land of the Cordillera, is deflected to the right, and ascends the valley of the Mississippi and Ohio. This wind, whose course was first traced by Volney, bears with it the humidity of the torrid zone, and diffuses fertility over a wide region which would otherwise be the abode of barrenness.

Great misapprehensions have arisen respecting the climate of America, from comparisons being drawn between the east side of the new continent and the west side of the old. We have already pointed out the influence of sea-winds in modifying the state of the atmosphere over the land, both as to heat and humidity. When this circumstance is attended to, and when the east and west sides of the old and the new continents are respectively compared with each other, the difference is found to be small, and easily accounted for. In the torrid zone, and on the sea-shore, the temperature of both continents is found to be the same, viz. 82° ; but in the interior the difference is rather in favour of America. There is no counterpart in the new world to the burning heats which are felt in the plains of Arabia and Gedrosia. Even in the western and warmest portion of the parched plains of Caraccas, the hottest known region in America, the temperature of the atmosphere during the day is only 98° in the shade, while it rises to 112° in the sandy deserts which surround the Red Sea. At Calabozzo, farther east in the plains, the usual temperature of the day is only from 88° to 90° ; and at sunrise the thermometer sinks to 80° . The basin of the Amazon is shaded with lofty woods; and a cool breeze from the east, a minute branch of the trade-wind, ascends the channel of the stream, following all its windings, almost to the foot of the Andes. Hence this region, though lying under the equator, and visited by almost constant rains, is neither excessively hot nor unhealthy. Brazil, and the vast country which extends westward from it between the Plata and the Amazon, is an uneven table-land, possessing an equable climate. At Rio Janeiro, which lies low, and is exposed to a heat comparatively great, the temperature in summer varies from 16° to 22° of Reaumur, and the mean heat is only about 19° (74° Fahrenheit.) Farther north, and in the interior, the Indians find it necessary to keep fires in their huts; and in the country near the sources of the Paraguay, hoar-frost is seen on the hills during the colder months, while the mean temperature of the year falls below 65° or 67° . On the declivities of the Andes, and on the high plains of Upper Peru, the heats are so moderate that the plants of Italy, France, and Germany, come to maturity. Lower Peru, though a sandy desert, enjoys a wonderful degree of coolness, owing to the fogs which intercept the solar rays. At Lima, which is 540 feet above the sea, the temperature varies from 53° to 82° , while the average for the whole year is only 72° . In the plains of La Plata, the mean temperature of the year is very nearly the same as at the corresponding north latitudes on the east side of the Atlantic. At Buenos Ayres, for instance, the mean annual heat is $19^{\circ} 7'$ of the centigrade thermometer (68° Fahrenheit), while that of places on the same parallel in the old world is $19^{\circ} 8'$. The range of temperature is probably greater in the basin of the Plata; but as we advance southward, the diminishing breadth of the continent makes the climate approximate to that of an island, and the extremes of course approach each other. In the Straits of Magellan the temperature of the warmest month does not exceed 43° or 46° ; and snow falls almost daily in the middle of summer, though the latitude corresponds with that of England. But the inference drawn from this, that the climate is unequalled for severity, is by no means

just, for the winter at Staten Island is milder than in London. In point of fact, the climate of Patagonia is absolutely colder than that of places in the same latitude in Europe; but the difference lies chiefly in the very low temperature of the summer. This peculiarity no doubt arises chiefly from the greater coldness of the sea in the southern hemisphere; for beyond the parallel of 48° the difference of temperature in the North and South Atlantic amounts, according to Humboldt, to 10° or 12° of Fahrenheit's scale. If we push our researches a step farther, and inquire what is the cause of the greater warmth of the northern ocean, we shall be forced to admit that a satisfactory reason cannot be given. Something may be due to the influence of the gulf stream, a minute branch of which is supposed to carry the waters of the torrid zone to the shores of Shetland and Norway; but so feeble an agent seems too trifling to account for the phenomenon. The sum, then, of the peculiar qualities which distinguish the climate of South America may be briefly stated. Near the equator the new continent is perhaps more humid than the old; and within the tropics generally, owing to its vast forests, the absence of sandy deserts, and the elevation of the soil, it is cooler. Beyond the tropics the heat is nearly the same in the southern temperate zone of America and the northern temperate zone of the old continent, till we ascend to the neighbourhood of Cape Horn, where we have cold summers, and a very limited range of the thermometer in the western hemisphere.

As nine-tenths of North America lie under the temperate zone, the climate follows a different law from that which is observed in the southern peninsula, and presents more striking contrasts to that of the best known parts of the old world. The long narrow region now denominated Central America, which connects the two great divisions of the continent, stretching from Panama to Tehuantepec, has in general a very humid atmosphere; but, for a tropical country, it must be only moderately hot, as every part of it is within a small distance of the sea. In Vera Paz rains fall during nine months of the year. Mexico is hot, moist, and unhealthy on the low coasts; but two-thirds of its area, comprising all the populous districts, consist of tableland, from 5000 to 9000 feet above the level of the sea. In consequence of this singular configuration of its surface, Mexico, though chiefly within the torrid zone, enjoys a temperate and equable climate. The mean heat at the capital, which is 7400 feet above the sea level, is $62\frac{3}{4}^{\circ}$, and the difference between the warmest and coldest months, which exceeds 30° at London, is here only about 12° ; but the atmosphere is deficient in moisture, and the country suffers from drought. Beyond the parallel of 24° , the western shores are hot and arid.

In the extensive region between the parallels of 30° and 50° , which comprehends three-fourths of the useful soil of North America, there are three well-marked varieties of climate, those of the east coast, the west coast, and the basin of the Mississippi. On the east coast, from Georgia to Lower Canada, the mean temperature of the year is lower than in Europe by 9° at the latitude of 40° , and by $12\frac{3}{4}^{\circ}$ at the latitude of 50° , according to Humboldt's calculation. Besides, the range of the thermometer is greater than in Europe, the summer being much hotter and the winter much colder. At Quebec the temperature of the warmest month exceeds that of the coldest by no less than $60\frac{1}{2}$ degrees of Fahrenheit; while at Paris, which is nearly under the same latitude, the difference is only 31° . The climate, moreover, undergoes a more rapid change in America as we proceed from south to north, a degree of latitude in the middle of the temperate zone producing a decrease of annual temperature of 1.13° in Europe, and of 1.57° in America. The comparison is greatly to the disadvantage of America when made in this form; but when the east coasts of the two continents are compared, the case is altered; the old world is found to have no superiority over the new, for Peking has still colder winters and warmer summers than Philadelphia, which lies under the same latitude. It is the west coast of the new continent which ought to exhibit the climate of Europe; and from the few facts known, we have reason to believe that it is quite as mild and equable. At the mouth of Columbia River, in lat. $46\frac{1}{2}^{\circ}$, Captains Lewis and Clarke found the rains to be copious and frequent; but they had very little frost, and saw no ice even in the depth of winter. From observations made in 1822-3-4, it appears that the mean heat of the warmest month was about 62° , that of the coldest about 36° , and of the whole year 51° . Now, the latitude is the same as that of Quebec, where the snow lies for five months, and the mean temperature during the three winter months is 18° below the freezing point. This single circumstance marks emphatically the contrast in the climate of the east and west coasts of North America. But the mouth of Columbia River is also under the same parallel with Nantes at the mouth of the Loire, where snow and ice are not unusual in the cold season of the year. We have,

therefore, good grounds for concluding, that the west coast of America, in the middle latitudes, has fully as mild and equable a climate as the west coast of Europe. The climate of the great central valley, or basin of Mississippi, bears a considerable affinity to that of the east coast. It was long a matter of dispute in what the difference between the two consisted; but this seems at last to have been clearly settled, by the meteorological registers kept at the military posts of the United States. From a comparison of four of these registers, kept at posts near the centre of this great valley, with others kept on the Atlantic coast in the same latitudes, it appears that in the hottest month the temperature is from 5° to 6° higher, and in the coldest month as much lower, in the basin of the Mississippi, than on the coasts of New England. The proportion of fair to cloudy weather is as five to one in favour of the east coast. The climate of the interior, therefore, exhibits in still greater excess those extremes of temperature which distinguish the eastern coast of this continent from the western, and from the shores of Europe. The fourth region of extra-tropical America includes the regions beyond Mount St. Elias on the west coast, and, in the interior, the plains which extend from the 50th parallel to the Polar Seas. The intensity of the cold in this tract of country is scarcely equalled by any thing that is known under the same parallels in northern Asia. The most northerly spot in America where grain is raised, is at Lord Selkirk's colony, on Red River, in lat. 50° . Wheat, and also maize, which requires a high summer heat, are cultivated here. Barley would certainly grow as far north as Fort Chippewyan, in lat. $58\frac{3}{4}^{\circ}$, where the heat of the four summer months was found by Captain Franklin to be 4° higher than at Edinburgh. There is even reason to believe, that this species of grain and also potatoes might thrive as far north as Slave Lake, since the spruce fir attains the height of 50 feet three degrees farther north, at Fort Franklin, in lat. 65° . These, however, are low and sheltered spots; but in this dreary waste generally, it will not be found practicable, we suspect, to carry the arts of civilized life beyond the 60th parallel; and the desirable country, capable of supporting a dense population, and meriting the name of temperate, can scarcely be said to extend beyond the 50th parallel. At 65° snow covers the ground in winter to the depth of only two feet, but small lakes continue frozen for eight months. The sea is open only for a few weeks, fogs darken the surface, and the thermometer in February descended, in one instance, to *minus* 58° , or 90° below the freezing point. At Melville Island, under the 75th parallel, such is the frightful rigour of the climate, that the temperature of the year falls 1° or 2° below the zero of Fahrenheit's scale. It is a peculiarity in the climate of America, that beyond the parallel of 50° or 52° , it seems to become suddenly severe at both extremities. At the one, summer disappears from the circle of the seasons; at the other, winter is armed with double terrors.—(*Ency. Brit. Article AMERICA*, pp. 611-613.)

VEGETABLE PRODUCTIONS.—The vegetable kingdom in America presents greater diversity than that of any region in the old world, of corresponding climate; and this remark becomes more true as we make a nearer approach to the equatorial zone. Although we are far from being fully acquainted with the flora of America, we may nevertheless affirm that it is richer than that of any other part of the world. More than 15,000 species of phanerogamous plants grow there spontaneously; but we must confine our attention specially to those which, differing in their structure from the plants of other continents, are the peculiar product of the western continent.

The low countries which border the Polar Sea and Hudson's Bay, produce plants resembling those of the High Alps in Europe; and the flora of this region of America is nearly identical with that of Lapland. A few stunted willows, birches, poplars, and pines, are the only trees which can resist the cold. A considerable number, however, of herbaceous plants are remarkable for the large size of their flowers, considering the shortness of their duration; and the rigour of the climate is no obstacle to the development of cryptogamous plants. Mosses and lichens cover the ground of this arctic country, and seem almost to exclude every other vegetable.

Canada and the basin of the St. Lawrence exhibit the transition from the frozen to the temperate zone of America. In Newfoundland are already found the plants of the United States, though the northern flora still predominates. Farther south, species multiply, and are remarkable for their beauty, which is much greater than that of any plants produced in the Old World, in the same latitudes, or in climates of the same temperature. And even among the plants of European species there is greater diversity and elegance in the green-wood trees which decorate the forests of North America. A crowd of plants, produced only by cultivation in Europe, grow naturally in the United States, where the mixture of northern and tropical forms is

to be seen. Michaux has given descriptions of a number of species of native oak, the timber of which is harder than the European *quercus robur*. The coniferous trees also exhibit forms extremely various; pines, firs, and junipers, are particularly those most numerous in species. The *myrica cerifera*, a shrub of the amentaceous family, is remarkable for the use which the Americans make of its fruit, the waxy cover of which serves for making candles. Among the herbaceous plants which are interesting from their elegance, or the singularity of their organization, we may cite several species of lobelias; and the famous Venus' flytrap, which grows in the marshes, with the *cabomba aquatica*, found equally in Guiana and Carolina. A number of European plants also, besides those introduced by culture, grow naturally in this part of America; as the *Linnaea borealis*, *gentiana pneumonanthe*, *saxifraga-aizoon*, *argus octopetala*, &c. But these plants belong to the cold country, and contain the fewest varieties.

The plants of north-west America have a close relation to those of the United States, and of Siberia; and it is from this region that, of late years, a number of plants which now decorate European gardens have been brought.

If we now look to the southern parts of North America, we find a vegetation different from that of the regions already mentioned, namely that of the equatorial regions, modified by the elevation of the country. Thus, while the coasts of Mexico and the shores of the Antilles present the plants indigenous to the warmest regions of the globe, the mountains and high table-lands produce not only those which are related to the plants of temperate regions, but even several species of those which belong to the latitudes nearest the equator. The warm region rises from the level of the sea to about 1900 feet; its mean annual temperature is about 79° Fahrenheit; and the difference of temperature between the eastern and the western coasts of Mexico, and the shores and interior of the islands, is more dependent on their exposure to the prevailing winds, and their elevation, than on the difference of their latitudes. Among the plants peculiar to these warm regions are several palms, boraginæ, legumes, labiata, rubiaceæ, and solanææ. In the temperate region, the mean annual heat is about 78°; and many trees and frutescent plants are to be met with, particularly oaks. Above this rises the cold region of Mexico, exceeding 7000 feet above the level of the sea, and having an annual temperature varying between 33° and 64°. On the borders of the snow, which covers the tops of the mountains, are found plants indigenous to more northern climates. In the least elevated spots are a great number of plants of European genera, but differing in species. A tree, much admired by travellers, as well for the beauty of its form as for the singular organization of its flowers, grows near Toluca. It is the *cheirostemon platanoides* of Humboldt and Bonpland, named also by other botanists *cheiranthodendron*, names which correspond with its Spanish designation *arbol del manitas*, and convey an idea of the conformation of its stamina, which much resemble the five fingers of the human hand. There are whole forests of it to the north of Toluca.

All the low countries of the equatorial region of America, from Mexico to Brazil and Peru, are characterized by a peculiar vegetation; but we must content ourselves with mentioning the plants useful to man, and those which are so abundant in some countries as to determine their character and aspect. Palms, with the exception of the date-tree and some *chamærops*, grow in all the tropical climates; some grow even on the slopes of considerably elevated mountains, as the *ceroxylon andicola*, which has been met with in the mountains of Quindiu in Peru. The natives gather from its bark a kind of wax fit for giving light. The other palms in great variety are common in the plains or the hills of all this part of America, principally in Colombia, Guiana, and Brazil, in the last of which they are particularly abundant, and very various. These regions present also to the European, when he first lands on their shores, an admirable prospect in their arborescent ferns, which grow with all the majesty of palms and pine trees. Numerous species of eyathææ, feterides, aspides, doradilles, &c., form one of the characteristic traits of the flora of the Antilles, New Andalusia, New Granada, the valleys of Peru, and in Mexico, near Jalapa. We may also mention the numerous *cacti*, with stocks resembling vast chandeliers, on the coasts of Cumana, and particularly the cochineal cactus, so valuable to Mexico; the *araucaria* of Chili and Brazil, the cacao, the rocou, the dye-wood of Campeché, the banana, the anana, &c., which are not only useful in their native countries, but have also become necessary for the arts and manufactures of Europe. Several useful plants have likewise been introduced and successfully cultivated in these countries, as the coffee-tree, sugar-cane, cotton-plant, bread-fruit-tree, &c. In Brazil are found ipecaeuanha, cinehona, &c.; and the high mountains of that country present a still greater number of plants than

the plains; among which may be noticed the vellosia, a kind of amaryllis, of which the species are found congregated, and whose expanded branches are covered with blue, violet, or white flowers, as large as our lilies.

In the southern region of America, a vegetation analogous to that of Europe, is found in latitudes nearer the equator. Thus the neighbourhood of Monte Video is covered with plants, which, with few exceptions, belong to the same genera that compose the flora of France. To complete this sketch of the vegetable productions, we should now describe those of Chili, Peru, Buenos Ayres, Patagonia, and Tierra del Fuego; but with respect to Peru, we should only have to repeat much of what we have already stated concerning the vegetation of Mexico and Brazil; for countries which correspond in character and temperature produce plants, if not absolutely the same, at least very similar in their organization. Peru, however, and Colombia, are the native country of the febrifugous cinchona: it was a long time believed that the true cinchona, or Peruvian bark, grew only among the Andes, but M. Auguste de St. Hilaire has found in Brazil three species which rival in their medicinal virtues those of Peru. South America is also considered as the native country of two species of vegetables particularly useful to man, the potatoe and maize; but nowhere has the potatoe been met with in a wild state; though plants with tuberculous roots, of similar appearance, are abundant in different parts of Chili, particularly near Quillota. Maize seems to be indigenous to Paraguay.

Patagonia and the neighbouring islands are very little known; but their vegetation seems to be analogous to that of the north, though characterized by a very singular appearance.

America does not contain a single species of *erica* (heath), nor has a *pæonia* ever been found in it, except a solitary one observed by Douglas to the west of the Rocky Mountains. That mountain barrier indeed divides two classes of vegetation, almost as peculiar as those of two continents. On its eastern side the forests of North America are distinguished by the variety of their oaks and juglandes, the magnificent flowers of the rhododendron, the magnolia, the azalea, and the humbler beauties of the actæa and raccinium; all of which are utterly unknown on the western side of the ridge. America is the real habitat of the cinchonaceæ and the cacti, of the fuchsia, the calathea, the mustisia, and all the bromeliaceæ.

ANIMALS.—In most parts of America many new genera are met with in every class of animals, distinct from those of the old world; and few species are found, which are not peculiar to it, with the exception of marine animals. The quadrumana, which range through 29° on each side of the equator, have the peculiarity of either wanting the thumb on the fore paw, or having it so placed, or so imperfectly developed, as not to be a real opponent to the fingers; while the prehensile tails of many, and the hairy buttocks of all, which shew that none of them sit erect, distinguish them from the individuals that most resemble them in the old world. The carnivora of America are almost all peculiar to it; with the exception indeed of some of the marine carnivora, and a very few terrestrial species, all are specifically distinct from those found in other parts of the world. The whole order of marsupia is either American or Australian; and the species of the one country are unknown in the other. America exceeds every other country in the number of its rodentia; and there is reason to doubt whether any of this order are common to the two great divisions of the world. The edentata are found chiefly in South America, but all are peculiar to the new world. Though America appears to have been, at one time, rich in its pachydermata, as their fossil remains attest, yet at the period of its discovery there were not more than four or five species of this order found on the continent. They were all peculiar, and only one, the *dicotyles torquatus* or peccary, is common to the northern and southern divisions. Among ruminantia we consider the American rein-deer and elk as peculiar species; and the identity of the *ovis montana* of the Rocky mountains and the Argali of Siberia as very doubtful. The order of cetacea is probably common to both divisions of the world, with the exception of Cuvier's *manatus americanus*, which is found on the coast of Florida, and also on that of South America. Dr. Richardson reckons that, out of 207 species of mammals found in North America, 169 are peculiar to that country; and, if we take Temminck's estimate of this class, North America contains one-fifth of all the known species of mammalia. The same author gives the number of American birds at 696 species, of which 54 are *raptores*, 400 *insectoris*, 33 *rasores*, 87 *grallatores*, and 122 *natatores*. Except in the last two orders, the species common to the old and the new world are few, and a great many genera are wholly American. The alligator, the boa-constrict-

tor, and the rattlesnake, are all peculiar to America. The first and the last are widely diffused, and the rattlesnake is found even so far north as Canada.

In the northern region of America, beyond the 50° N. lat. the characteristic mammalia are the musk ox, the black American bear, the western wolf, the wolverine, the rein-deer, the moose-deer, with several species of marmot, squirrel, lemming, and other animals allied to the genus *mus*. The Arctic fox, hare, and beaver are common to both divisions of the world; and the *mustela erminea* and sea-bear seem identical in both. The raptorial birds peculiar to the region are several species of hawk, owl, and bustards. Most of the natatores are also found within its limits.

The country between 50° and 30° N. lat. may be characterized as the region of the grizzly bear, the bison, the wapiti, and the antelope furcifer. It possesses one marsupial animal, the Virginian opossum, a species which ranges from the lakes of Canada to the intertropical regions of America. But its most distinguishing characteristic is the number of its rodentia, amounting to not less than fifty-three well ascertained species, only one of which, the beaver, is found in the old world. The birds are numerous, and among these the wild turkey is the most conspicuous and characteristic. Of the raptores it contains many falcons and hawks, and among them Washington's eagle, a magnificent bird found in Kentucky. Of its numerous insectoria the greater part are peculiar to North America. The *trochilidae* (humming birds) first appear in this region; of which it contains a considerable number of species, but only three extend so far north as 33°. They resemble in structure the honey-eaters of Australia; but Professor Traill doubts the propriety of calling them suctoria; for, having dissected a considerable number of them, he invariably found their stomachs crammed with minute insects. The rasores of this region are all, except a single species of bustard, peculiar to America. Of the numerous grallatores a considerable number also occur in Europe, and still more of the natatores; but of the former order three species are peculiar to America, and of the latter, two. The alligator *lucius* abounds in the valley of the Mississippi; where very peculiar reptiles, the *syren lacertina* of Carolina, and the *meopoma gigantea*, are also found, which have no representative in the old world, except the *proteus anguineus* of the subterranean lakes of Carniola. Among the numerous tortoises we may notice the *serpentina*, the *ferox*, and the *clausa*. The serpents are numerous; the most remarkable are the rattlesnakes, of which four or five species are found in this region.

Equinoctial America, or the region which extends from the equator to about 30° on each side, but exclusive of the elevated valleys and table-lands of Mexico and Bolivia, is distinguished by the number of its quadrumana, all of which are furnished with tails, and many of them have that organ prehensile, answering the purpose of a fifth hand. It is also the region of the jaguar, a feline animal of great strength and courage. The puma likewise abounds, which, however, has far less claim to be called the lion of America than the jaguar has to be called the tiger of that continent. The puma has a considerably wider range than its congeners now mentioned, being found in the woods of America from Brazil to Canada. This region also abounds with the tapir, the capybara, and the agouti. The rivers swarm with the manati, which wanders far from the sea, as well as a species of porpoise which is as yet but imperfectly known. The region is also distinguished by the splendid plumage of its birds, of which numerous genera are either wholly peculiar to tropical America, or are almost unrepresented in other regions. Its raptorial birds are often distinguished by their size. To this region belong the magnificent king-vulture, and a very numerous species of the same family, as large as a turkey, the *vultur uruba*; the destructor and harpy eagles, the giants of their tribe, are the tyrants of the lower provinces. The insectoria are very numerous, and some of them are remarkable for the magnificence of their plumage. The bell bird (*casimarkynchus carunculatus*) is celebrated for the deep tone of its simple note, which resembles the sound of a convent bell in the distance. The enormous goat-suckers, especially that of the Cave of Caripe, and the momots or prionites, are peculiar to this region. The toucans and aracarís are conspicuous for the size and structure of their bills, in which the organs of smell are largely developed. Tropical America also abounds with beautiful parrots, among which the ultramarine parrot, the scarlet and blue, and the blue and yellow macaws, are the most conspicuous. The beautiful family of *Crax* or *Pauxi*, of *Penelope*, the singular *Rhea* and serpent eater, are among its gallinacæ. The boatbill, *cancroma*, and the remarkable species *mycteria americana*, and *palamedea cornuta*, the scarlet ibis, the trumpeter or *psophia crepitans*, the *jacana*, are among its waders. This region also abounds with snakes, some of which are remarkable for their enormous size, as the *boa constrictor* and *boa cenchris*; others, like the canine boa, the garden boa, the Peruvian and the

mourning snakes, are distinguished for the beauty or elegant pattern of their colours; others, like the rattlesnake or the bushmaster, are dreaded for the virulence of their poison. The fluviatile fishes of the region are remarkable; but we can only notice here the electric gymnote, the soldier loricaria, and the salmo rhombeus; the last of which is the pest of the South American rivers. The *papilionide* and *phalanide*, among its insects, are noted for their size and the splendour of their colours; and the singular lantern-fly for the brilliancy of its light. The wounds inflicted by the large bird-catching spider, the biting scolopendra, which grow to an enormous size, and by a small species of scorpion, are much dreaded.

The animal productions of the Mexican region, though but imperfectly explored, would seem to justify the inference drawn from its peculiarity of climate that this portion of America should be considered as a distinct zoological kingdom. It has been recognised as the point in which the fauna of North and South America meet. There the wolf of the north and the monkey of the tropics range the same forests; the bunting and the titmouse nestle near the parrot and the trogon; the phalaropé of the north searches for its food on the same beach with the jacana and the boatbill of Brazil. Lichtenstein has pointed out several species of weasels and martins as peculiar to Mexico; the Mexican wolf is probably also a peculiar species. Mr. Swainson states that out of 114 species of Mexican birds, examined by him, 67 are peculiar to that country; yet, among so many species there was but one new genus, *ptiliogonys*, which unites the tyrant shrikes with the caterpillar-eaters; 36 species are common to Mexico and the United States, and 11 to Mexico and South America. The lakes of the valley of Mexico contain that singular animal the *axocott* of the Mexicans, the *siren-pisciformis* of Shaw, which seems to be intermediate between the other sirens and the protei.

The vast elevation of the greater part of Bolivia and Chili has strongly impressed the fauna of those regions with peculiarities. It is characterized as the region of the guanaco, the alpaca, and the vicuña, three distinct species, which have been sometimes confounded under the name of llama. They are the camels of South America, and were almost the only mammalia subdued and domesticated by the ancient Peruvians. This is also the peculiar region of the Condor, a bird as large as the læmergeyer of the Alps, the largest of the European raptors. It loves to dwell among the snowy solitudes of the Andes, perched on lofty pinnacles, from which it pounces on its prey in the subjacent valleys. The fauna, however, of these countries is still imperfectly explored.

Of the region extending from 30° S. lat. to Cape Horn, including the pampas of Buenos-Ayres, and the southern part of Chili, the fauna has been little explored. Among its quadrupeds are the numerous herds of wild horses and sheep, originally introduced by the Spaniards, but now spread over a great part of South America. The Antarctic and Chilian foxes seem to be peculiar. On its coasts many species of seals are found. The extensive pampas are the chosen haunts of the rhea or American ostrich; and, on its southern coasts, are found the huge, wingless, Patagonian penguin, with the whole genus of *pachyptila*.

At the discovery of America by Europeans the continent was without the horse, the cow, the sheep, the hog, the dog, and the common poultry of Europe; all of which are now spread over it in abundance, and in some places have relapsed into the wild state, in countries suited for their subsistence.—(From the Article PHYSICAL GEOGRAPHY, by Professor Traill, in *Ency. Britt.* 7th edition.)

PEOPLE.—The concurrent testimony of all travellers goes to prove that the native Americans are possessed of certain physical characteristics, which serve to identify them in places the most remote; while they assimilate not less in their moral character and usages. There are also in their multitudinous languages some traces of a common origin; and it may be assumed as a fact, that no other race of men maintains so striking an analogy through all its subdivisions, and amidst all its varieties of physical circumstances, while, at the same time, it is distinguished from all the other races by external peculiarities of form, but still more by the internal qualities of mind and intellect. But how are we to group the American nations into families, or, as some writers have attempted, into species? M. Bory de St. Vincent has endeavoured to show that the American race embraces four species besides the Esquimaux, but he has certainly failed to point out any such differences as establish a claim to a specific character. According to Dr. Morton, the most natural division of the Americans is into two families, which he calls the *Toltecan* and the *American*; the former of which bears evidence of centuries of half-civilization, while the latter embraces all the barbarous nations of the new world, with the exception of the Polar tribes, which

are evidently of Mongolian origin. In each of these, however, there are several subordinate groups, which may be distinguished as the *Appalachian*, the *Brazilian*, the *Patagonian*, and the *Fuegian*. The Appalachian branch includes all the nations of North America, except the Mexicans, together with the tribes of South America, north of the river Amazon, and east of the Andes. In this race the head is rounded, the nose large, salient, and aquiline; the eyes dark brown, with little or no obliquity of position; the mouth large and straight; the teeth nearly vertical; and the whole face triangular. The neck is long, the chest broad, but rarely deep, the body and limbs muscular, and seldom disposed to fatness. In character these nations are warlike, cruel, and unforgiving; they turn with aversion from the restraints of civilized life, and have made but little progress in mental culture or the useful arts. The Brazilian branch is spread over a great part of South America, east of the Andes, including the whole of Brazil and Paraguay, between the river Amazon and 35° S. lat. Their physical characteristics differ but little from those of the Appalachian branch; they possess, perhaps, a larger and more expanded nose, with larger mouths and lips. The eyes are small, more or less oblique, and far asunder; the neck short and thick; the body and limbs stout and full, even to clumsiness. In character also, they differ little. None of the Americans are less susceptible of cultivation; and what they are taught by compulsion seldom exceeds the humblest elements of knowledge. The Patagonian branch includes the nations to the south of the Plata, as far as the Straits of Magellan; including also the mountain tribes of Chili. They are chiefly distinguished by their tall stature, handsome forms, and indomitable courage. The Fuegians, who call themselves *Yacannacumec*, rove over the sterile wastes of Tierra del Fuego, which is computed to be half the size of Ireland, and yet their whole number has been computed by Forster at only 2000. The physical aspect of the Fuegians is altogether repulsive. They are of low stature, with large heads, broad faces, and small eyes. Their chests are large, their bodies clumsy, with large knees, and ill-shaped legs. Their hair is lank, black, and coarse, and their complexion a decided brown, like that of the more northern tribes. Their expression of face is vacant, and their mental operations are to the last degree slow and stupid; they are almost destitute of the usual curiosity of savages, caring little for anything that does not minister to their present wants.

Long, black, lank hair is common to all the American tribes, among which no traces of the frizzled locks of the Polynesian, or the woolly texture of the African negro has ever been observed. The beard is very deficient, and the little that nature gives them they assiduously root out. A copper-coloured skin has been also assumed by most writers as a characteristic distinction of the Americans; but their real colour is in general brown, of the hue most nearly resembling that of cinnamon; and Dr. Morton coincides in opinion with Dr. McCulloch that no epithet derivable from the colour of the skin so correctly designates the Americans as that of the brown race. There are, however, among them occasional and very remarkable deviations, including all the varieties of tint from a decided white to an unequivocally black skin. That climate has a very subordinate influence in producing these different hues must be inferred from the fact that the tribes which wander in the equinoctial regions are not darker than the mountaineers of the temperate zone. The Puelches and other tribes of the Magellanic regions, beyond 55° S. lat., are darker than the Abipones, Mocobies, and Tobos, who are many degrees nearer the equator; and the Botecudos are of a clear brown colour, sometimes approaching nearly to white, at no great distance from the tropic; while the Guyacas under the line are characterized by a fair complexion; the Charruas, who are almost black, live at the 50° S. lat.; and the still blacker Californians are 25° N. of the equator. Everywhere, indeed, it is found that the colour of the American depends very little on the local situation which he actually occupies; and never, in the same individual, are those parts of the body which are constantly covered, of a fairer colour than those which are exposed to a hot and moist atmosphere. Children are never white when they are born, as is the case among even the darkest of the Caucasian races; and the Indian caciques, who enjoy a considerable degree of luxury, and keep themselves constantly dressed, have all parts of their body, except the palms of the hands and the soles of the feet, of the same brownish red or copper colour. These differences of complexion are, however, extremely partial, forming mere exceptions to the general tint which characterizes all the Americans, from Cape Horn to Canada. The cause of such anomalies is not easily ascertained; that it is not climate is sufficiently obvious; but whether or not it arises from partial immigrations from other countries remains yet to be decided. The characteristic brown tint is occasioned by a pigmental apparatus under the second

epidermis of the Americans; a peculiarity of structure common to them with the African negroes, but entirely wanting in the Caucasian or white race.—(*M. Flourens, Annales des Sciences Nat.* December 1838, p. 361.) The Americans might also be divided into three great classes distinguished by the pursuits on which they depend for subsistence, namely, hunting, fishing, and agriculture. The greater number of them are devoted to hunting; the fishing tribes are not numerous, and are wholly destitute of the spirit of maritime adventure, and even of fondness for the sea. A few tribes were strictly agricultural before the arrival of Europeans, but a much greater number have become so since. Many tribes regularly resort to all these modes of subsistence, according to the seasons; employing the spring in fishing, the summer in agriculture and the autumn and winter in hunting.

The intellectual faculties of this great family appear to be decidedly inferior, when compared with those of the Caucasian or Mongolian race. The Americans are not only averse to the restraints of education, but are for the most part incapable of a continued process of reasoning on abstract subjects. Their minds seize with avidity on simple truths, but reject whatever requires investigation and analysis. Their proximity for more than two centuries to European institutions has made scarcely any perceptible change in their mode of thinking or their manner of life; and, as to their own social condition, they are probably in most respects exactly as they were at the earliest period of their national existence. They have made few or no improvements in constructing their houses or their boats; their inventive and imitative faculties appear to be of very humble capacity, nor have they the smallest taste for the arts and sciences. One of the most remarkable of their intellectual defects is the great difficulty they find in comprehending the relations of numbers; and Mr. Schoolcraft, the United States Indian agent, assured Dr. Morton that this deficiency was one cause of most of the misunderstanding in respect to treaties entered into between the United States Government and the native tribes. The natives sell their lands for a sum of money, without having any conception of the amount; and it is only when the proceeds come to be divided, that each man becomes acquainted with his own interest in the transaction. Then disappointment and murmurs invariably ensue.

The Toltecan family embraces the civilized nations of Mexico, Peru, and Bogota, extending from the Rio Gila in 33° N. lat. along the western shore of the continent to the frontiers of Chili; and on the eastern coast, along the Gulf of Mexico, in North America. In South America, on the contrary, this family chiefly occupied a narrow strip of land between the Andes and the Pacific Ocean, bounded on the south by the great desert of Atacama. Farther north, however, in New Granada, were the Bogotese, a people whose civilization, like their geographical position, was intermediate between that of the Peruvians and the Mexicans. But, even before the Spanish conquest the Toltecan family were not the exclusive possessors of the regions which we have assigned to them; they were only the dominant race or caste, while other tribes of the American race always constituted a large mass of the population. The arrival of the Spaniards reduced both classes alike to vassalage; and three centuries of slavery and oppression have left few traces of Mexican and Peruvian civilization, except what may be gleaned from their history and antiquities. These nations can no longer be identified in existing communities; and the mixed and motley races which now respectively bear the name, are as unlike their predecessors, in moral and intellectual character, as the degraded Copts are unlike the ancient Egyptians. It is in the intellectual faculties that the great difference between the Toltecan and the American families consists. In the arts and sciences of the former we see the evidences of an advanced civilization; their architectural remains every where surprise the traveller and confound the antiquary. Among these are pyramids, temples, grottoes, bas-reliefs, and arabesques; while their roads, aqueducts, and fortifications, and the traces of their mining operations, sufficiently attest their attainments in the practical arts of life.

With respect to the American languages, it may be sufficient to state, that they exhibit resemblances not less remarkable than those which we have noticed in the physical and moral characteristics of the people. From Cape Horn to the Arctic Sea, all the nations have languages which possess a common distinctive character, but still apparently differing from all those of the old world with which we are acquainted. This resemblance is not of an indefinite kind, but consists generally in the peculiar modes of conjugating the verbs by the insertion of syllables; which gave rise to the remark of Vater, that this wonderful uniformity "favours in a singular manner the supposition of a primitive people, which formed the common stock of the American indigenous nations."—(*Crania Americana*, &c. by Samuel George Morton

M.D. 1 vol. 4to., Philadelphia 1839: p. 62 to 86.) History and physical science have hitherto completely failed to throw any light on the origin of the indigenous Americans; and it is needless to repeat the numerous hypotheses and conjectures which have been hazarded on the subject.

According to M. Balbi the American nations employ more than 438 different languages, embracing upwards of 2000 dialects; but all the people, he says, may be divided into two great classes, namely, the indigenous or aboriginal Americans, and those of foreign origin; the latter being the most numerous, and, with the exception of the negroes, now forming the dominant people of the whole continent. The numbers of all the various races he estimates thus:—

Europeans and their descendants, all of the white race,	14,600,000
Indians, or native Americans, of the brown race, - -	10,000,000
Unmixed Africans, of the black race, - - - - -	7,400,000
Races produced by the intermixture of the pure races, -	7,000,000

Total, 39,000,000

And he then gives the following

Table of the People of America, classed by their Languages.

I. INDIGENOUS PEOPLE.

The *Pecherai*s or *Yacamac*s, a very scanty race, who inhabit Tierra del Fuego, with some adjacent portions of the continental coast. They lead a miserable life, only to be compared with that of some of the native Australians; they live on shell-fish, and squat themselves in places where these are found most abundantly, moving their habitations only when the supply is exhausted. They are low in stature, ill-looking, and ill-proportioned, with a colour resembling old mahogany or rusty iron — (See *anté*, p. 894.)

The *Tehuelhets*, a numerous people of Patagonia, divided into several tribes, which, under different names, wander in the vast solitudes of that country. Some of them are of large stature, and a few even entitled to be called giants, a circumstance which seems to explain the relations of old voyagers that all the Patagonians were gigantic.

The *Chilian Family* comprises several races, who occupy the high valleys of northern Chili, and of eastern Chili, beyond the Andes, and also extend from southern Chili into Patagonia. The most numerous of them, and the most remarkable, are: The *Auc*us or *Moloushes*, called by the Spaniards *Araucanians*; and those who live to the west of the Andes, forming the powerful *Araucanian* confederation. This warlike people, after long continued wars with the Spaniards, now live in peace with the Chilenos. Their territory extends along the coast of the Pacific, from the river Bio-bio southward, and is divided into four governments, called *uthal mapus*, each superintended by a toqui, who is independent in the administration of his territory. These four chiefs, with the subordinate governors of provinces and districts are hereditary in the male line; presenting a striking resemblance to the ancient feudal aristocracy of Europe. The Araucanians have been considered the most civilized of the native American races; they are indeed highly susceptible of mental culture, but they despise the restraints of civilization, and those of them who have been educated in the Spanish colonies have embraced the first opportunity to return to the haunts and resume the habits of their nation. They are a robust and muscular race, of a lighter complexion than the surrounding tribes, and reach old age with few infirmities. They are brave, discreet, and proverbially cunning; patient in fatigue, enthusiastic in enterprise, and fond of war. They soon discovered the value of the military discipline of the Spaniards, and especially the great importance of their cavalry, and so early as 1568, only 17 years after their first encounter, they had already several squadrons of horse in their army. They are, however, only less savage than their neighbours; their agriculture is very imperfect; they dwell in ill-built houses, and have even made attempts to establish a regular form of government. They are the most numerous race who still preserve their independence. After the Aucas come the *Futa-Huilliche*, who live to the south of the former along the west coast of Patagonia, as far as the strait of Magellan; their principal tribes being the *Cunchi*, *Chonos*, *Poyus*, and *Key-yus*. The mountaineers of this family have in general a larger stature than the tallest Europeans. Mounted on horses like the Tartars, they suddenly unite in troops, and make journeys of several hundred miles to ravage an enemy's country.

The *PUELCHES*, who are divided into several tribes, of which some are called *Pampas* by the Spaniards, formed one of the most powerful nations of South America. They were found chiefly in the southern part of the territory of Buenos Ayres, between the rivers Colorado and Negro; but have now entirely disappeared from the plains, and the remnant have taken refuge in the Andes.

The *ALCOBY-ABYRON FAMILY*, to which belong the *Mocobies*, a very tall and warlike people, established in Chaco; and the *Abipones*, equally athletic, but reduced to a small number by their wars with the Mocobies.

The *PERUVIAN* or *QUICHA* FAMILY, comprises: 1. The *Peruvians*, who form the principal part of the population of Peru, Bolivia, and Ecuador. Although the Peruvians were ignorant of alphabetic writing, and their quippos and symbolic paintings were inferior to those of the Mexicans, they were nevertheless, at the period of the arrival of the Spaniards, the most polished people of South America. 2. The *Aymaras* or *Aymares*, also a numerous race, divided into several tribes, occupy the diocese of La Paz, and part of that of La Plata or Chiquisaca, in Bolivia.

The *CHIQUITOS*, a numerous people, who wander in the vast region which bears their name, in Bolivia. A great part of them have embraced Christianity, and have become dependents on the Bolivian republic.

The *CARAPUCHOS*, who live in Peru, along the Pachitea, an affluent of the Ucayle; who are reported to be cannibals.

The *GUARANI FAMILY* comprises four principal nations, subdivided into a great number of tribes and hordes, spread over Brazil and a great part of Spanish South America. The *Guaranis*, properly so called, live along the Parana, the Uruguay, and the Ibicuy. Converted by the Jesuits in the eighteenth century, they presented the singular spectacle of a theocratic or priestly government, powerfully organized: but the seven missions in the Brazilian province of San Pedro, and the mission district to the right of the Parana, in Paraguay, are all that now remain of the Jesuitic empire. The *Brazilians*, formerly spread, under different names, over all Brazil, but are now reduced to a few tribes. The *Omoguas*, who are now few, and live along the Amazon, formerly acted a principal

part in the history of these regions. In "an enumeration of the various Indian nations, tribes, and hordes, at present found in Brazil," Dr. Von Martius specifies 250 resident in different parts of the empire, the principal consisting of the various branches of the *Tupin* or *Tupinambae* family, of which Balbi's *Guaranis* are only one. These Tupis or Tupinambae, were formerly the most powerful and most widely extended people in Brazil, but are now, through the predominance of the whites, either losing their nationality and language, or becoming extinct. Their remains, now difficult to be recognised, may be distributed into five distinct groups: 1. The Southern Tupis or Guaranis, in Paraguay, Monte Video, and Rio Grande do Sul; 2. The Eastern or proper Tupis, scattered along the shore from St. Catharine's island to the river Amazon. They speak the proper Tupi tongue, now called the *lingua geral* (general language) of Brazil; 3. The Northern Tupis, remains of whom are found in Para, and on both sides of the river Amazon, as far as Topinambarana; 4. The Central Tupis, who are now the only portion living in a state of complete independence, occupy the upper portion of the Rio Tapajós; but we possess no accurate or detailed accounts of them; 5. The Western Tupis, who speak the West-Guarani dialect, and consist of the *Chiriguano*s in the province of Santa Cruz de la Sierra, the *Ciriono*s, and the *Guarayo*s. — (*Journal R. Geog. Soc. Lond.* II. 210.)

The *BOTECUOS* or *ENGECMOUNG*, known formerly by the names of *Aymores* or *Amboures*, fierce cannibals, who occupy a space parallel to the coast of Brazil, between the Rio Pardo and the Rio Doce. Their principal residences are found along the latter river and the Rio Belmonte, in the provinces of Bahia and Espiritu Santo.

The *MUNDAUCS*, a very warlike and ferocious people, the most numerous and most powerful in the province of Para, are found between the Xingu and the Tapajós; but of late almost all their tribes have lived in friendship and alliance with the Portuguese.

The *PAYAGUA-GUAYCURU* FAMILY, which comprises five principal nations. The *Payagua*, in the vicinity of Assompcion in Paraguay; and the *Guaycuru*, along both banks of the Upper Paraguay, where they live by the chase, by fishing, and the produce of their numerous herds of beeves. The chiefs form a sort of aristocratic confederation; and the people are divided into the three classes of nobles, soldiers, and slaves. They have been sometimes called *Canalleiros*, from their making their military excursions on horse-back, which rendered them formidable to all their neighbours. But they now live at peace with both the Spaniards and the Portuguese. The *Payagua* were formerly numerous, and masters of the navigation of the Paraguay, and accompanied the *Guaycuru* in all their expeditions. They are generally tall, and it is not rare to find among them individuals of more than six feet.

The *GUANAS*, a numerous people in Chaco, in the southern part of Matto-grosso, and in Paraguay. The greater part of them have become settled agriculturists.

The *BOROROS*, a numerous people in Matto-grosso.

The *CARIA-TAMANQUE* FAMILY comprises several nations, of which the principal are: — The *Caribs*, *Carabes* or *Carina*, a very numerous people, who formerly possessed all the smaller Antilles, with an immense extent of the adjacent continent. They are still met with in different parts of Guiana, and along the Orinoco. Humboldt has remarked that, next to the Patagonians, the Caribs are the largest and most robust people in the world. They formerly dealt in slaves; but, though very cruel and ferocious, the Guiana Caribs never were cannibals like their brethren in the Antilles, among whom this horrible practice was so common, that all man-eaters have been called *cannibals* (properly *caribals*), from their name. The *Tamanques*, formerly very powerful but now reduced to a small number, live along the right bank of the Orinoco; to them may be ascribed the symbolical figure sculptured on the rocks, relating to the belief in Amalivaca, who is the chief mythological personage of equinoctial America. The *Guaraunor*, who occupy the delta of the Orinoco, are a sort of sailors, who live on trees or in boats. They are, however, of considerable political importance, since it is in their power to facilitate any military expedition, which may be directed against Colombian Guiana, by the way of the Orinoco. The *Chaymas* and the *Cummagottes*, numerous tribes established in the department of Maturin; and the *Arawaques*, in the same department, and on the banks of the rivers Berbice and Surinam. The *Warao*s live on the coast of Pome-roun, from Morocco creek near Cape Nassau to the Orinoco; they are few in number, but exhibit remarkable skill in the construction of their pragues.

The *OYAMPES*, a warlike and half nomadic people, now the most numerous race in French Guiana, where they live along the Upper Oyapock, and the Jari or Rouapiri, an affluent of the Amazon.

The *GUAHIVA* or *GUAYOVS*, a numerous, nomadic, and ferocious race, wander along the lower Meta, from the mouths of the Pauto and the Cassanara to its confluence with the Orinoco. They are a source of great terror to their settled neighbours.

The *OTTOMAKS*, a miserable, ferocious, and dirty race, established along the Orinoco, between its two affluents, the Sinaruco and the Apure, and particularly in the mission of Uruana. They are in the practice of eating with impunity a kind of earth, which during the period of the inundations, forms their principal food.

The *MANITIVITANOS*, a ferocious and warlike people in alliance with the Portuguese, and established on the banks of the Rio Negro.

The *MAREPIZANOS* are neighbours of the Manivititanos.

The *MANAS*, a people of the province of Para, are still numerous and warlike, though much less so than formerly, when they possessed the whole course of the Urarira, an affluent of the Rio Negro, and extended as far as the Rio Chiuara. Great part of them have embraced Christianity, and live intermixed with other people along the Lamalonga, Thomar, &c.

The *SALIVA* FAMILY comprises several races, of which the principal are: — The *Saliri* or *Saliva*, an agricultural people, were formerly powerful, but are now much reduced; they are, however, still numerous in different parts of Spanish Guiana. They have a great taste for music; and the Jesuits having cultivated that taste, the Salivi have become celebrated throughout the region of the Orinoco, as expert instrumental musicians. The *Mucos*, or *Macus*, called *Piaros* by the Spaniards, a numerous agricultural people, of gentle manners, are found along the Upper Orinoco and its affluents.

The *CAVERE-MAYPURE* FAMILY, of which the principal nations are: — The *Cacere* or *Cabes*, formerly numerous, powerful, warlike, and addicted to cannibalism, are now reduced to a small number in the missions of the Orinoco. The *Guaypunalis*, established along the Upper Orinoco, are incontestably cannibals, though, in other respects, the most civilized of all the dwellers on the Upper Orinoco. The *Maypures*, also on the Upper Orinoco, formerly numerous and powerful, are now reduced to a small number. The *Mozor*, a numerous race, occupy a large portion of the province of Moxos in Bolivia; but a great part of them are subjects of the Missions.

The *GOANIKOS* occupy the north-western part of the peninsula formed by the Gulf of Maracaybo and the Caribbean Sea. They maintain commercial relations with Jamaica, and several of them speak English. They hold in subjection the *Cocinas*, another barbarous race who occupy the eastern coast of the same peninsula.

The *CUNACUNAS*, a warlike people, who occupy the eastern part of the Isthmus of Panama.

The *MAYNAS* or *MAINAS*, a numerous and warlike nation long established in the country to which they give their name, along the Morona and the Lower Pastaza.

The *CHANGUENES*, a numerous, warlike, and cruel people, established in the eastern part of Costa-rica, in Central America, who are the terror of all their neighbours.

The **TAUKAS**, **TOWKAS** or **XICAQUES**, to the south, the **MOSCOS** or **MOSQUITOS**, in the middle, and the **POYAIS**, to the north-west, are the three principal nations, who live along the coast of that part of Central America, between Honduras and the Isthmus of Panama.

The **CHOLS** or **CHOLEs**, a numerous race, who dwell on the confines of Yucatan and Vera Paz.

The **LACANDONES**, a numerous people of Yucatan, where they occupy the banks of the river Pasion, and possess a great many canoes.

The **MAYA QUICHE FAMILY**. The *Mayas* or *Yucatan*s, form the great majority of the people of Yucatan, and of a part of Tabasco; their ancestors were nearly as far advanced in civilization as the Mexicans. The *Mames* or *Pocomams*, a numerous people of Guatemala and San Salvador. The *Quiches*, *Kachiques*, and *Kachis*, are numerous tribes in Guatemala, where they were formerly dominant.

The **CHAPANEQUES**, in Chiapa, who, at the period of the arrival of the Spaniards, formed a powerful republic, and had subjected several neighbouring tribes. Their traditions speak of Vodan, grandson of an illustrious old man, who was saved from the great inundation in which the greater part of mankind perished, by means of a raft. Vodan took a part in the erection of a great building by which men undertook to reach the skies; but the work was interrupted; each family received thenceforth a different language, and the great spirit, Teoth, ordered Vodan to go and people the country of Anahuac. It is impossible, says the author of Views of the Cordilleras, not to be struck with the resemblance between these ancient traditions of the Americans and those of the Hebrews.

The **MIXTEQUES**, a numerous people of Oaxaca.

The **ZAPOTEQUES**, a numerous people of the same state, whose ancestors were distinguished by their progress in civilization, even before they were subjected by the Mexicans. Humboldt ascribes to them the famous palace of Mitla.

The **TOTONAQUES**, a people extended over a great part of Vera Cruz and the district of Zacatlan, in the state of Puebla.

The **MEXICAN FAMILY**. The *Mexicans* or *Aztecs* occupied the country from 37° N. lat. to the lake of Nicaragua. Their division of the year, more exact than that of the Greeks and Romans; their ideographic writing; the art of cutting large blocks of stone; their maps of their country, and of the regions which their ancestors had overrun; their cities, roads, dykes, canals; immense pyramids very exactly set to the cardinal points; their civil, military, and religious institutions; altogether entitled this people to be considered as the most civilized race found by Europeans in the New World. Their monuments long forgotten, have recently attracted the attention of the learned in Europe and America. The *Toltecs*, to whom is attributed the construction of the pyramids of Teotihuacan and other ancient monuments, have long since disappeared. They were regarded as the principal stock of this family, to which belonged also the *Mecos* and the *Pipils*, the former of whom wander in the vast solitudes of Durango, and disturb and harass their peaceful neighbours. The *Pipils*, descended from a Mexican colony, live in San Salvador near Sonsonata, San Salvador, and San Miguel.

The **OTHOMS**, a numerous race, spread over the dioceses of Mexico, Puebla, Mechoacan, and Guadalajara.

The **TARASQUES**, a numerous people in Mechoacan, distinguished for the mildness of their manners and their industry in the mechanic arts.

The **TARAHUMARA FAMILY**, a numerous people who are found in the missions of Tarahumara, in the diocese of Curango, extending through a part of the valleys of the Sierra Madre, from the 24° to the 30° N. lat.

The **YAQUI** or **IAKIS**, a numerous people of Sonora, who live along the Yaqui or Hiaki river.

The **MOQUI**, a peaceable, agricultural, and somewhat civilized people, who live along the northern bank of the river Yaquesila.

The **APACHES**, a numerous nation divided into several tribes, spread over the country from San Louis de Potosi to the northern extremity of the Gulf of California. With few exceptions, these tribes are nomadic; they are very troublesome to their Spanish neighbours, whom they alarm with frequent and terrible attacks. Their warriors are mounted on horseback, and armed with long lances.

The **PANIS-ARRAPAHOS FAMILY** comprises several nations. The *Panis* or *Pawnees*, a numerous and warlike people, who occupy three large villages on the banks of the Wolf river, an affluent of the Platte. They are engaged in constant war with the Sioux, the Osages, the Konzas, the Corneilles, and others. One of their most powerful tribes, the *Skeye* (Wolf-Pawnees), has abolished the human sacrifices which they used to make every year to the planet Venus, before commencing their rural labours, in order to obtain a rich harvest. The *Arrapahoes* or *Arrapahays*, a numerous tribe who live along the Platte, between the Pawnees and the Canenawish. These, and other kindred tribes, who are warlike and excellent riders, form a sort of confederation, not only formidable to the natives, but also troublesome to the Spaniards, particularly to those who are established along the eastern and northern frontiers of Mexico. The *Ietans*, *Teutans*, or *Tetans*, a nomadic, powerful, and still numerous people, named *Camanches* or *Cumanches* by the Spaniards, and *Paducas* by the Pawnees and Osages, wander in the extensive countries comprised between the sources of the Missouri, the Upper Arkansas, the rivers of Trinidad, Brazos de Dios, Colorado, and Rio Bravo del Norte, and the Sierra Madre, and Sierra dos Mimbres. Like other Americans they have learned to ride on horseback; they pass with great rapidity over immense distances, carrying desolation and death into the Spanish settlements, whose inhabitants are thus obliged to travel only in armed bodies.

The **COLUMBIAN FAMILY** comprises a great number of independent tribes spread over the basin of the Columbia River, and the upper part of the basin of the Missouri. The principal tribes are: The *Tushpaws*, who live near the sources of both rivers, and extend for some distance down the Columbia. The *Multnomah*, whose principal tribe occupies the island of Wappatoo, at the confluence of the Multnomah with the Columbia. The *Shahala*, who live to the right of the Columbia, below the confluence of the Canoe river. The *Snake Indians*, also named *Alitans* and *Shoshonees*, wander along the southern affluents of the Columbia, and particularly the Lewis and the Multnomah. It may be said generally of all the members of this family, that they have mild manners, live in well-built cabins, and subsist almost exclusively on roots and fish. Nearly the whole of them flatten artificially the heads of their children; on which account they have received the general English name of *Flatheads*. The *Shoshonees*, the *Chopunish*, the *Sokulks*, the *Escheloots*, the *Eneshurs*, and the *Chilluckittequaws*, are good horsemen, and the first three tribes possess a great number of horses.

The **SIoux-OSAGE FAMILY** comprehends a great number of independent tribes. The principal are the *Sioux* or *Dacotas*, called also *Ochenti-shakung*, *Narcotah*, and *Nadoessies*, who are the most numerous, and most powerful of all the remaining North American races. They are subdivided into a great number of tribes, of which the *Dacotas* and the *Assiniboin*s are the most powerful. The *Dacotas* properly so called occupy the vast region which extends along the Middle Missouri, the St. Peter's River, the upper Mississippi, the upper Red River, Lake Winnipeg, and their affluents, from the 42° to the 47° N. lat. The *Assiniboin*s, named *Hoha* (the Revolted) by the *Dacotas*, also *Stone-Sioux* and *Assinipotuc*, live in alliance with the Chippeways, to the north of the *Dacotas*, and to the west of Lake Winnipeg, to the north of the Pembina; and along the *Assiniboin*, *Saskatchewan* and *Mouse* rivers. They have a feud with the *Blackfeet*, and extend their excursions to the Rocky Mountains; and with their kindred the *Dacotas*, they have carried on an exterminating warfare since the commencement of the 17th century. All the *Sioux* form a confederation of independent tribes, who unite

in a general council on matters of common interest. To this council each tribe sends a deputy. The Sioux begin their year at the vernal equinox, while their neighbours the Chippeways begin theirs at the summer solstice. They have no division by weeks, and reckon their time by sleeps or nights. The *Omauha* or *Maha*, whose principal residence is at a great village on the Elk-horn, an affluent of the Platte, are divided into several tribes. The *Mandanes*, a scanty race, live along the banks of the upper Missouri, in two villages. They are remarkable for the singularity of their religious faith, and for the great whiteness of complexion of some of their members. The *Wausash*, generally called *Osages*, a brave and warlike nation, live in large villages, and carry on implacable hostilities with their western neighbours; but live in friendship with the Sakis and the Konzas. They are chiefly agricultural, and occupy the district which bears their name, in the state of Missouri. They are divided into three principal branches, several of which have embraced Christianity, and have made considerable progress in civilization.

The **MOBILE-NATCHES** or **FLORIDIAN FAMILY** comprises six principal independent nations, each subdivided into several tribes. The *Natches*, now almost extinct, were formerly very powerful; the existing remnant is dispersed among the Creeks, Chickesaws, and others. They were particularly remarkable for their monarchical government, their great civilization, and for the worship which they rendered to the sun, in a temple where they maintained a perpetual fire. The *Muskohges* or *Creeks* occupy several fertile valleys comprehended within the States of Alabama and Georgia, where they live in towns and villages. They have made great progress in civilization, and have instituted schools for the instruction of their children. They are divided into two principal branches. The *Upper Creeks*, or Creeks properly so called, occupy the higher parts of Alabama, where they form a powerful confederation, with a president styled Myco. The Lower Creeks, called also *Seminoles*, occupy the plains traversed by the river Flint; they are much less civilized than the Creeks; but are very warlike, and have for several years maintained an obstinate and destructive warfare with the military force of the United States, who are endeavouring to subdue or remove them. The *Chickasaws*, a numerous people, now united with the *Yazous*, live in the northern part of the State of Mississippi. They have made rapid progress in civilization, and have already collected themselves into large villages, where they live by cultivating the ground: at the beginning of the 18th century they were the dominant people of this region. The *Chactaus* or *Choctaus*, called also *Flatheads*, are a numerous agricultural people, who live in the States of Mississippi, Louisiana, Arkansas, and Alabama. The *Cherokees*, a numerous race, whose territory comprises the north-west angle of Georgia, the north-east of Alabama, and the south-east of Tennessee; but by a treaty made with the United States they have agreed to transport themselves to the west of the Mississippi, where a tract of country has been allotted to them. In 1818, about a fourth part of the nation, preferring the wild life of their fathers, removed to the banks of the Arkansas, while the rest abandoned the savage state, and adopted the religion and the usages of their civilized neighbours. They now occupy commodious houses, and possess 70 villages. Some of them have well-cultivated farms, and large stocks of cattle; while others, devoting themselves to mechanical arts, manufacture stuffs, and possess flour and saw mills. The most of them can read, write, and cypher; and almost all speak English. They have established a library, a museum, and a weekly journal, called the *Cherokee Phoenix*, which is published by a Cherokee, in the national language, with an English translation; and in 1827 they formed and promulgated a constitution, under which their government is composed of three distinct powers, legislative, executive, and judicial, in imitation of that of the United States.

The **MOHAWK, HURON, or IROQUOIS FAMILY**, consists of a great number of tribes, comprising the remaining descendants of much more numerous and powerful races. The *Mohawks*, now reduced to a small number, dwell partly near Niagara, and partly on the bay of Kenty. They formed part of the confederation called the Five Nations. The other members were the *Senecas*, *Onondagoes*, *Oneidas*, *Cayugas*, *Tuscaroras*, *Canogs*, *Mohicans*, and *Nauticokes*. The first five are named *Maquas* by the early Dutch voyagers, and Iroquois by the French. At the period of the French settlement of Canada, the Five Nations occupied the country between Montreal and lake Champlain; at the time of their greatest power they subjugated the Chippewyan family, and were always the allies of the English. In 1794 most of them began to devote themselves to agriculture and the breeding of cattle. The Mohawks of Canada have adopted the European costume. The *Senecas*, who are now the most numerous of these races, though they do not exceed 1600 individuals, live in the states of New York and Ohio, and make the nearest approach to the whites in their dress and manners. The *Hurons*, formerly a powerful nation, to the east of the Huron, are now reduced to a small tribe, who live on the western shore of lake St. Clair; while a small part of them occupy the village of Loretto, nine miles from Quebec, where they have become catholics, and devoted themselves to agriculture.

The **LENNAPE** or **LENAPE FAMILY**. The *Shawanos*, once a numerous and wide-spread people, have only a few small remnants on the Upper Wabash in Indiana, near the sources of the great Miami in Ohio, and in Illinois. The *Mequachagues*, one of their tribes, like the Levites of old, have the exclusive charge of their sacrifices and religious services; while the *Kickapoos* are noted for their warlike propensity. The *Sakis*, *Sarkees*, and *Ottogamies*, called also *Foxes*, are two other fragments of the same great nation; who live along the Upper Mississippi and its affluent the *Ayooa*. They are the allies of the Sioux, are stationary, and cultivate maize. The *Miamis* and the *Illinois* are the best known of all the tribes of this nation, to which seem also to belong the *Pottawatamies*. The most of them live in Indiana, Illinois, and Michigan. The *Pottawatamies* and *Winnabagoes* have sold to the United States all their lands south of the Wisconsin, with the exception of a few lots. The *Lenni-Lenape* or *Lenape*, named *Delawares* by the English, and *Loups* by the French, were formerly very numerous, and spread over a great part of the east coast of the United States. The remains of them now live in Indiana and Ohio. The *Mahicanni* or *Mohicans*, and the *Algonquians* are the two principal branches of a numerous nation, who formerly lived in New England and New York. The most of them, now called the *Stockbridge Indians*, have united with the Five Nations; but a small number are still found at the east end of Long Island. The *Algonquians* or *Gaspeians*, formerly very numerous, and spread over all the east coast of Canada, New Brunswick, Nova Scotia, and Newfoundland, are now found only on the south-west coast of Nova Scotia, and in the interior of Newfoundland, where they are still savage idolaters, while the others have all become Christians, and made rapid progress in civilization. The *Algonquians* and the *Chippeways* are the two principal and best known branches of a nation spread over Canada, in Michigan, Huron territory, and the district of Mandanes in the United States. They are always at war with the Sioux, and use fire-arms. The *Kristians*, a numerous people, scattered over all Lower Canada, part of Labrador, and New South Wales, and still farther west. The *Nenuech* live along the Severn, and the *Abbitibes*, along the river and lake which bear their name. The *Chippewyans* or *Chepuyans*, whose numerous tribes are spread over the basin of the Mackenzie, the Coppermine river, and part of that of the Taconche-Tesse. The *Carriers*, in New Caledonia. The *Indians*, who dwell in the neighbourhood of Santa Barbara in California, belonging to this family, are few in number, but remarkable for their civilization.

The **WAKASH** or **NOOTKA**, a very warlike nation, live in large towns on Quadra's and Vancouver's Island, which from them would be much more appropriately and less awkwardly named *Nootka Island*.

The **KOLICHE** or **KALOCHE FAMILY**, to which belong the people who live along the coast from Jakutat to Queen Charlotte's Islands, are all remarkable for their courage, their industry, and their ingenuity and practical skill in the construction of their houses, canoes, and implements of war and

fishing. They also construct drinking vessels, pipes, and other articles of a soft argillaceous stone; and these objects are at once symmetrical in form, and elaborately decorated with figures.

The **ESQUIMAUX** consist of five principal nations, of which one belongs to Asia. Those of the new world are divided into three principal branches, namely, the *Karalits* or *Kabalits*, who inhabit Greenland; the *Esquimaux* properly so called, who live on the north-east coast of Labrador; and the *Western Esquimaux*, who wander near the mouths of the Mackenzie and the Coppermine rivers, and other places along the Polar Basin. To this family belong also the *Aleutians*, who inhabit the long chain of the Aleutian Islands, and the western extremity of Alaska. The *Aglenouters* or *American Chuckchee*, live under the protection of Russia, along the Nussegak. Other tribes of the same nation are found in the islands of Nuniwok and Stuart, and along a part of the adjacent coast. Others, under the name of *Kitegnas*, occupy the American coast from Behring's Strait to Kotzebue's Gulf. Some live in the Isle of Chuakak, known also by the names of Chibono, St. Lawrence, Sindow, and Clerk Island. Some writers suppose the Esquimaux to be a part of the same original stock with the other Americans, partly because there is some resemblance between them in features, partly from partial analogy of language, and partly from a determination to merge the American in the Mongolian. It is obvious nevertheless, says Dr. Morton, that the continent of America was originally peopled, as it is yet, by a very distinct race, and that the Esquimaux arriving in small and straggling parties from Asia, necessarily adopted more or less of the language and customs of the people among whom they settled, or with whom they came in contact. Hence the Esquimaux, and especially the Greenlanders, are to be regarded as a partially mixed race, among whom the Mongolian physical character predominates, while their language presents obvious analogies to that of the Chippewyans, who are their neighbours to the south.—(*Crania Americana*, p. 63.)

The Caucasian or White races who have settled in America belong chiefly to the nations of Western Europe. The Spaniards colonized Mexico, the northern, western, and central portions of South America, and part of the West Indies; the Portuguese colonized Brazil; and the English colonized the eastern part of North America. French settlements were also widely extended along the St. Lawrence and Mississippi; and in Canada the French still form two-fifths of the population unmixed. Numerous Dutch colonists settled in New York and in New Jersey. To these have been added Swedes, Germans, Swiss, Scots both Celtic and Saxon, and Irish, in great numbers; and out of all these has been formed the great Anglo-American family, which is now rapidly spreading over all the habitable portion of North America.

African negroes, in large numbers, have been, during the last three centuries, imported into America, as slaves. Pure negroes still form nearly a fifth of the total population; while the races sprung from their intermixture with the white and brown races are also very numerous. The slave-holding states are the southern portion of the American Union, Texas, the Spanish, Danish, Dutch, and French colonies, and Brazil; in the last of which the slaves are particularly numerous, and of the most ferocious character. All the negroes in the British possessions are now free, and have shewn themselves, since they acquired their freedom, to be a peaceable and well-disposed people. The negroes and mixed races of Hayti recovered their freedom, and established their national independence during the period of the French Revolution; but as yet they have made no very great or rapid progress in civilization.

RELIGION.—All the European colonists, and many of the aborigines profess Christianity, but several of the independent tribes are still addicted to fetichism, or to what may be called sabeism or dualism. It is very remarkable, that among all the tribes, however savage, we find an idea, more or less clear, of a Supreme Being, who governs the heaven and the earth; of an evil spirit who shares with him the dominion of nature; and of the immortality of the soul, or rather, of a future state of existence. Several of the tribes have priests or conjurers; some have neither; but all believe in the existence of invisible beings and of a future life. Some represent God under the form of a star; some as an animal; some, on the contrary, see him only in the phenomena of nature. A great number of religious creeds, based on supposed revelations, as well as the religions of the ancient Mexicans, Peruvians, and Muyscas, have disappeared with the conversion to Christianity of those who professed them; but some part of the creed and religious practices of the three last-mentioned nations, seem still to be preserved among their descendants. It is even curious to observe, in the ancient worship of Peru, traces of the Hindoo trimurti; to meet with the doctrine of transmigration in the creed of the Tlascalteks; to see the Pastoux, in the centre of South America, living on vegetables, and abstaining from flesh; and to find among the Mexicans, traditions of the mother of mankind having fallen from her estate of innocence and happiness; of a great flood, in which a single family escaped on a raft; and of a pyramidal edifice raised by the pride of mankind, and destroyed by the wrath of the gods; ceremonies of purification at the birth of children; images made of maize flour, and distributed in portions to the people assembled in the temples; confession of sins made by penitents; and religious associations resembling those of the monks and nuns of Europe. At the arrival of the Spaniards human blood flowed in the *teocallis* or temples of the Mexicans and the Mayas; and the Peruvians offered at Cuzco, before the appearance of Manco-Capac, all the cruel sacrifices of the Hindoos. Even the worship of the sun, introduced by the Incas, though a milder form of religion, was not free from human sacrifices; thousands of human victims were immolated on the tomb of the monarch. The cannibals of Brazil had a less sanguinary worship, and their creed bore a very distinct impress of dualism, which is still met with among the people of this vast continent. The Cahetes, however, are said to have had neither creed nor religious ceremonies.

The people of the Upper Orinoco, Atapapo, and Inirinda, have no other objects of worship than the powers of nature. They give the name of Cachimana, or the

Manitou, to the Great Spirit who rules the seasons, and provides the harvests. Besides Cachimana there is an evil spirit, named Jolokiano, who is less powerful, but more cunning and more active. Along the banks of the Orinoco, says Humboldt, there is no idol; but the *botuto*, or sacred trumpet, is an object of veneration. As a qualification for a person to be initiated into the mysteries of the botuto, and become a *piache* or conjurer, he must be of pure morals, and remain in celibacy. The initiated submit to flagellations, fasts, and painful exercises. There is only a small number of the sacred trumpets; the most celebrated of which is placed on a hill near the confluence of the Tano and Río Negro. Women are not allowed to see this marvellous instrument; and are even excluded from all the ceremonies of worship. If one of them should happen to see the trumpet, she is put to death without pity.

The Sioux, the Chippeways, the Sakis, the Foxes, the Winebagoes, the Menomenes, and other tribes of North America, all believe, perhaps, in a Great Spirit; but there is no individual among them who has not a favourite object of reverence, in some animal, tree, herb, or root. Every chief of a family, every old woman, and almost every individual, has a collection of herbs and medicinal roots, which they call the medicine bag, and regard as the sanctuary of so many divinities. They keep it carefully in their tents, and never separate from it when they are at war, or on a journey. Among several of these tribes, when they are settled for a portion of the year, there are huts, where girls are placed to watch over the fire which is kept burning in the centre, like the Roman vestals, the Peruvian virgins of the sun, the guardians of the prytaneum at Athens, and the Guebres of Persia and India. It seems to be considered as an emblem of the sun, or at least is consecrated to that vivifying luminary.

The religion of the Araucanians, Natches, Choctaws, and some other tribes, is a kind of Sabeism. The Cahans make the most extravagant gestures in addressing their prayers to the Supreme Being, whom they implore every morning. The Knistenaux regard as spirits the fogs which cover the marshes of their country. The Chippewyans believe themselves to be descended from a dog, and consequently regard that animal as sacred; they represent the Creator of the world under the figure of a bird, whose eyes flash lightning, and whose voice produces thunder. They have also traditions of a great flood, and of the long life of the primitive human race.

Among several of the North American tribes, and even among some of those in the South, fanaticism occasions scenes not less cruel than those with which the Hindoos celebrate their Currack pûja; but our space does not allow us to enumerate ceremonies which are almost as various as the tribes that practise them.

Christianity is professed by all the European colonists, and by many Indian converts. The Catholic Church is dominant and exclusive in Brazil and all Spanish America; but in some of the more remote regions, the natives preserve their ancient idols along with the images of the saints; crown them with flowers, and address them in secret prayers. There are also a great many Catholics in the United States and in Canada. In English America, or the United States and British territories, all the various sects of Protestants are found, and also a few Jews.

DIVISIONS. — America is naturally divided into three great portions, namely, *North America*, *South America*, and *West Indies*; but, politically, it is divided into a number of independent states and territories, with the foreign possessions of European powers. These we shall describe in the following order: 1. Russian America; 2. British Continental Territory in North America; 3. United States of North America; 4. Republic of Texas; 5. Mexico; 6. California; 7. Yucatan; 8. United States of Guatemala, or Central America; 9. New Granada; 10. Venezuela; 11. Equador; 12. Peru; 13. Bolivia; 14. Chili; 15. United States of the Rio de la Plata; 16. Paraguay; 17. Uruguay, or Banda Oriental; 18. Empire of Brazil; 19. British, French, and Dutch Guiana; 20. Patagonia; 21. The Islands. 22. To these we shall add the *Arctic Regions*, or *Greenland and Spitzbergen*.

1. RUSSIAN AMERICA.

This territory comprehends the north-western portion of the continent, extending from Behring's Strait eastward to the meridian of Mount St. Elias, along both the Arctic and the Pacific Oceans; and from that mountain southwards, along the maritime chain of hills, till it touch the coast, about 51° 40' N. lat., forming an area of about 390,000 square miles. It is in the immediate possession of the Russian American Company; and the settlement originated with a company or association of merchants formed at Irkutsk, who obtained from the Emperor Paul the exclusive privilege of trading for peltry in the Aleutian Islands and the adjacent coasts. This privilege was extended by the Emperor Alexander over all Russian America. The capital and principal factory was first established at Kodiak; but the increasing scarcity of sea-otters in the Aleutian Islands, and the necessity of pursuing them farther south, led the then governor to lay the foundation of New Arkhangel, which has now become the capital. The Russian dominion, however, over the vast solitudes of this region is merely nominal.

Some of the tribes who live along the coasts, sell or barter furs with the Russians, and acknowledge the sovereignty of the empire; but most of them, as well as those in the interior, are quite independent. We may even say that the greater part of the interior is quite unknown to the Russians, who possess merely some small establishments on the coast, and some posts surrounded with ditches and palisades, which are dignified with the title of forts. *New Arkhangel*, the capital, situate on the west coast of Sitka Island, in N. lat. $57^{\circ} 3'$, and W. long. $135^{\circ} 13'$, is a town with about 1000 inhabitants, and contains the boards and warehouses of the Company. The thermometer falls below 28° Fahrenheit in January and February, which are the coldest months; the mean temperature of these months is about 34° ; in August it is $57^{\circ} 7'$. The Russians have also a settlement at *Bodega*, on the coast of California, $38^{\circ} 30'$ N. lat., where they cultivate a fertile tract which extends several miles inland. The islands along the coasts, within the Russian limits, are:—*Queen Charlotte's Island*, *Prince of Wales' Island*, *Sitka*, *Admiralty*, *Kaye*, *Montague*, *Kodiak*, and the long chain of the *Aleutian Islands*, which extend from Alashka to Kamtschatka, a distance of about 600 miles, and consist apparently of the summits of a range of submarine volcanic mountains, several of which are in constant activity. *Behring's Island*, *Attoo*, *Oonimack*, and *Oonalashka*, are the principal. Oonimack contains enormous volcanoes, one of which, *Chichaldinsk*, is about 8083 feet above the level of the sea. The volcano of *Makouchinsk*, in Oonalashka, rises to 5491 feet. All the islands present a barren aspect, with high and conical surfaces, which are covered with snow during great part of the year. Vegetation is scanty, and there are no trees or plants larger than shrubs and bushes. The inhabitants are of a middle size, of a dark brown complexion, and apparently intermediate between the Mongolian and the American races. Their chief occupation used to be hunting sea-otters, sea-lions, and seals; but the unsparing massacre of these animals has now made them very scarce.

II. BRITISH CONTINENTAL TERRITORY IN NORTH AMERICA.

This region comprises the *Hudson's Bay Company's Territories*, *Canada*, *New Brunswick*, *Nova Scotia*, and *Honduras*.

The *Territory of the Hudson's Bay Company* includes *Labrador* and *East Main*, on the east side, and *New North Wales* and *New South Wales*, on the west side of Hudson's Bay, with the interior countries farther west as far as the Arctic and Pacific Oceans, and the Russian frontier. The western portion of this dreary country is intersected by numerous rivers, lakes, and marshes; the ground is every where barren and desolate; the sea is open only from the beginning of July till the end of September; and, such is the severity of the climate, that even in 57° N. lat. the lakes freeze eight feet thick; brandy congeals; rocks split with a noise resembling that of the loudest artillery, and the shattered fragments fly to an amazing distance. The weather is capricious, and the changes sudden. The aurora borealis sometimes sheds a light equal to that of the full moon. There is great abundance of berry-bearing shrubs, and culinary herbs. In some places terebinthines are common, and other trees attain a considerable size. On Red River different kinds of culture succeed well. Animals are somewhat numerous, as the buffalo, rein-deer, musk ox, fallow-deer, beaver, wolf, fox, catamount, wild cat, white, black, and brown bears, wolverine, otter, racoon, musk rat, mink, pine-martin, ermine, porcupine, hare, various squirrels, and mice. The northern and eastern coasts are inhabited by Mongolian tribes of the Esquimaux family; the interior and southern portions, by aboriginal Americans, who all live by hunting and fishing, and by exchanging the produce with the European traders. The fur trade of the region is carried on by the Hudson's Bay Company, whose head-quarters and principal depot is *York Factory*, 5 miles above the mouth of Hayes River, in N. lat. 57° and W. long. $92^{\circ} 26'$. The Company has nearly 1000 persons in its employment; and has formed a settlement on Red River, for the retired officers and servants.

Labrador is a triangular peninsula, bounded on the east by Davis' Straits; on the south, by Canada and the gulf of St. Lawrence; and on the west, by Hudson's Bay. But it is as cold and barren as the countries above described; and is, besides, constantly enveloped in fogs. The interior, however, is somewhat milder than the coasts, and produces various trees, with celery, and other plants. The surface is a mass of mountains and rocks, interspersed with innumerable lakes and rivers, which abound with the best species of fish. The country swarms with beavers and rein-deer, and bears abound. The eider-duck and innumerable other birds frequent the eastern coasts. The Moravian brethren have established three settlements, at *Nain*, *Okkak*, and *Hoffenthal*; and, besides preaching the gospel, have taught the Esquimaux many of the useful arts of life, and thereby partially civilized all within their influence.

§ 1. Canada.

SITUATION AND EXTENT.—This extensive region is situate between 42° and 51° N. lat. and 61° and 81° W. long.; being about 1400 miles in length from east to west, and varying in breadth from 200 to 400. In 1791 it was divided into the two provinces of Lower and Upper Canada, which have been again united, for legislative purposes, in the present year (1841). Canada forms a long narrow tract of country, extending south-westward from the sea, along both sides of the river St. Lawrence, as far as the 45° N. lat., and from the point where that parallel crosses the river, it stretches westward along the northern bank of the Cataraqui, and the northern shores of the lakes Ontario, Erie, Huron and Superior, including the peninsula formed by Lake Huron on the west, and Erie and Ontario on the south and south-east. The river Ottawa forms the common boundary between the two provinces through the greater part of its course.

GENERAL ASPECT.—Canada is intersected by mountainous ridges, which extend from the coast far into the interior, and between these lie extensive valleys, which are generally fertile. On the northern shore of the St. Lawrence a ridge of heights rises near the eastern extremity of Lower Canada, which stretches close to the river for upwards of 100 miles, and forms its rugged banks as far as Cape Tourment, about thirty miles below Quebec. Here the ridge, taking a direction west-south-west, terminates on the river Ottawa, about thirty-eight leagues above its confluence with

the St. Lawrence, after extending from Cape Tourment along the course of the river about 300 miles. The tract of country lying between it and the St. Lawrence, which may be estimated at from fifteen to thirty miles in breadth, is beautifully picturesque, well watered, and level. Towards the west, more especially, it may be considered, in respect of population, soil, and skilful cultivation, as the choicest part of the province.

That part of Canada which lies on the north side of this ridge is comprehended within the Ottawa river on the north-west, the 81st parallel of west longitude, and the 52d of north latitude. It is intersected by another and higher range of mountains, which runs into the interior in a north-west direction, at the distance of about 200 miles from the former ridge, and which forms the watershed by which the tributary streams of the St. Lawrence are divided from those that fall into Hudson's Bay. Of this extensive wilderness, which has been but imperfectly explored, we know only that it is covered with immense forests, whose dreary solitudes are interrupted merely by hunting parties of wandering savages.

On the south side of the St. Lawrence, a ridge commences nearly 100 miles below Quebec, which takes a south-west direction; and opposite to this city, is about ten leagues distant from the river. The intervening country is a fertile and well-cultivated level, with several insulated hills, or rather rocks, of a singular form, and thinly covered with small trees near their summits. The same chain, continuing in a south-west direction, crosses the boundary line between Canada and the United States to the west of Lake Memphremagog, and proceeds in the same course until it meets with the Hudson river. The tract between this ridge and the St. Lawrence, with the exception of some occasional ridges, is nearly level, and, from the richness of its soil, is covered with populous and flourishing settlements.

Beyond this ridge, at the distance of about fifty miles, is another and a higher range, generally denominated the Land's Height, because it divides the tributary streams of the St. Lawrence from those which flow towards the Atlantic Ocean; and its summit is also supposed to constitute the boundary line between the territories of Great Britain and the United States. This range of mountains commences near Cape Rosier, in the Gulf of St. Lawrence, and, stretching into the interior in a direction nearly parallel with the course of the river, and with the former chain, terminates on the eastern branch of the Connecticut river, being in length nearly 400 miles. The country lying between these two ridges varies in its quality and fertility, according to its peculiar situation. From the 45th degree of north latitude, which is the boundary line between Canada and the United States, to the river Chaudiere, within a few miles of Quebec, there is a tract of excellent and fertile land, divided mostly into townships, many of which are occupied and under cultivation. This part of the country, from its luxuriant soil, and from the great advantage of being contiguous to the United States, and also from containing the main roads and principal points of communication between the two territories, will probably become the most flourishing portion of the province. From the river Chaudiere eastward to Lake Temiscouata the land is broken, irregular, and of an indifferent quality, interspersed, however, with some good and productive tracts, of which the returns would amply repay the expenses of cultivation. From Lake Temiscouata eastward to Cape Rosier, in the Gulf of St. Lawrence, the country has been but partially explored. But it appears generally to be of a rugged and mountainous character; and such parts of it as are known present an appearance of sterility which holds out no encouragement to the labours of the farmer. On the banks of the St. Lawrence, however, some fertile spots are to be found, on which settlements might be established with advantage. On the south side of the ridge, down to the shores of Gaspé and Chaleurs Bay, the country is generally barren and mountainous, interspersed with occasional spots of excellent land, some of which, especially those on the shores of Chaleurs Bay, are well inhabited. They contain about 3000 inhabitants, most of whom, being employed in the fisheries, bestow comparatively little attention on agriculture.

That portion of Upper Canada which has been laid out into townships extends from the eastern frontier along the northern shore of the river St. Lawrence, Lake Ontario, Lake Erie, Lake St. Clair, and the communication between it and Lake Huron, in length about 570 miles; and its breadth towards the north varies from 40 to 50 miles. Throughout the whole of this tract the soil is excellent, and is not exceeded in fertility by any other part of the American continent. It generally consists of a fine dark loam, mixed with a rich vegetable mould; but it is so happily varied as to present situations adapted to every species of produce. For about 170 miles from

the eastern frontier of the province, to the head of the Bay of Quinté, on Lake Ontario, the land is spread out into an almost uniform level of great beauty, which rises only a few feet from the bank of the St. Lawrence. It is well watered in almost every direction by numerous streams, which are generally navigable for boats and canoes, and which, at the same time, present the most desirable situations for the erection of machinery. From the Bay of Quinté, at the distance of about 40 miles from the eastern shores of Lake Ontario, to its western extremity, runs a longitudinal ridge of no great elevation, and of inconsiderable breadth. Another ridge, called the Queenstown Heights, extends from this point eastward along the southern shores of Lake Ontario, between these and Lake Erie, into the State of New York. This range never rises in any part more than 160 yards above the level of the lake. The country which lies between the two lakes of Ontario and Erie, and which extends round the western extremity of Lake Ontario to the Bay of Quinté, comprehending the Newcastle, the Home, and the Niagara districts, is watered by a number of large and small streams. The land throughout is uncommonly rich and fertile, and already contains a number of flourishing settlements. A road leads from Toronto, near the western extremity of Lake Ontario, and the capital of Upper Canada, to Lake Simcoe, which is 40 miles long and 12 broad; and along this road a great number of emigrants have been settled.

The remaining part of the tract we have been describing, which extends along the northern shores of Lake Erie, from the river Ouse to the lake and river of St. Clair, is an uninterrupted level, abounding in the most advantageous situations for settlements; and those portions of it which are already occupied and under tillage equal any part of either province in the plentiful crops and thriving farms with which they abound. That portion of the country which lies between Lake Erie and Lake St. Clair is perhaps the most delightful in the whole province. The fertility of the soil, the diversified and luxuriant scene which everywhere opens to the view, the excellent fish which abound in the rivers, and the profusion of game to be found in the woods, combine to attract a continual supply of new settlers to this highly favoured tract.

CLIMATE.—In Canada, the opposite extremes of heat and cold are felt in all their excess. The greatest heat experienced during the summer is from 96° to 102° of Fahrenheit in the shade; but the usual summer heat is about 80° or 82° . In winter the thermometer is sometimes 60° of Fahrenheit below the freezing point, although it never continues above one or two days so low; and it is not above once or twice in a season that this excessive cold is felt. In the winter of 1790 the mercury was frozen at Quebec. The medium temperature of winter may be estimated in general to be from 20° above to 25° below zero. The pure atmosphere and cloudless sky which always accompany this intense frost make it both pleasant and healthy, and render its effects on the human body much less severe than when the atmosphere is loaded with vapours. In the vicinity of the sea, towards the eastern coast of Lower Canada, fogs are frequently brought from the Gulf of St. Lawrence by the easterly wind; but to the westward they seldom prevail, and even at Quebec they are almost unknown. In Canada, the spring, summer, and autumn are comprehended in five months, from May till September; the rest of the year may be said to consist wholly of winter. In October frost begins to be felt, although during the day the rays of the sun still keep the weather tolerably warm. In the succeeding month of November the frost increases in rigour, and one snow-storm succeeds another until the whole face of the country is covered, and the eye looks in vain for one solitary spot of verdure whereon to rest. These storms are generally accompanied by a violent wind, which, driving along the snow with immense velocity, renders them much more gloomy and terrific. The most severe snow-storms occur in November, and generally come from the north-east, from the frozen regions of Hudson's Bay and Labrador. This gloomy and disagreeable weather frequently continues till the middle or latter end of December, when the atmosphere clears; an intense frost then succeeds, the sky becomes serene, pure, and frosty, and of a bright azure hue, and this cold and clear weather generally lasts till May. The snow covers the ground to the depth of several feet, so that wheel-carriages can no longer be used. Their place is supplied by *carioles*, a sort of sledges, which, being placed on iron-runners, resembling in form the irons of a pair of skais, pass over the hardened snow without sinking deep. These carriages are generally light open vehicles, drawn by one horse, to which the snow, after it is trodden for some time, and hardened by the frost, offers very little resistance; and in them the Canadians travel in the most agreeable manner, and with inconceivable rapidity. So light is the draught, that the same horse will go in one day eighty, and sometimes ninety miles; and the inhabitants of this cold

climate always take advantage of the winter, when they can travel so easily and expeditiously, to visit their friends who live at a distance. Covered *carioles* are sometimes used to protect the travellers from the weather; but, in general, open carriages are preferred.

About the beginning of December all the small rivers are completely frozen over and covered with snow. Even the great river St. Lawrence is arrested in its course, and from the beginning of December till the middle of April the navigable communication is interrupted by the frost. During this period the river from Quebec to Kingston, and between the great lakes, except the Niagara falls and rapids, is wholly frozen over. The great lakes are never entirely covered with ice; but the ice usually shuts up all the bays and inlets, and extends many miles towards the centre of these inland seas. In Lake Superior, which is farthest to the north, the ice extends 70 miles from the shore. The river is seldom frozen over below Quebec; but the force of the tides is continually detaching the ice from its shores, and these immense masses are kept in such constant agitation that navigation is rendered quite impracticable. In some seasons, though rarely, the river is frozen completely over below Quebec; an event which happens when large masses of ice come in contact, and fill the whole space between the opposite banks, in consequence of which the whole becomes stationary. If this takes place at neap tides, and in calm weather, the intense frost gives it solidity before it can be deranged by the rising tides; and when it has stood for some days, it remains firm and immovable, till it is dissolved and broken up by the warmth of the April sun. When the river is frozen over, it is of great advantage both to the inhabitants of Quebec and to those of the adjacent country, as it affords an easy mode of transporting into the town all sorts of bulky commodities, such as fire-wood and other produce. It thus reduces the price of these necessary articles in Quebec, while, by diminishing the price of carriage, it opens to the produce of the most distant parts of the country a quick and easy access to all the most eligible markets.

The snow begins to melt in April, and the thaw is so rapid that it generally disappears by the end of the second or third week. Vegetation then resumes its suspended powers; the fields are clothed with verdure, and spring can scarcely be said to exist before summer arrives. In Upper Canada the winters are much shorter than in Lower Canada, and the cold is not so intense. The spring opens, and the labours of the farmer commence six weeks or two months earlier than in the neighbourhood of Quebec. The climate is not liable to the same extremes either of heat or cold, and the weather in autumn is usually favourable for securing all the late crops.

NATURAL PRODUCTIONS. — The greater portion of Canada is still covered with forests. The pine family and various species of evergreens are the predominant species; but there are also various other kinds, as the silver and American firs, Weymouth and Canadian pines, white cedar, maple, birch, ash, bass-wood, hickory, wild cherry, and numerous species of oak. From the sap of the maple, as it rises in spring, sugar is made in considerable quantity; the districts that produce it are called *sugarics*, and are considered a valuable kind of property. Most of the oaks are unfit for ship-building; but the species called the live-oak, which grows in the warmer part of the country, is said to be well adapted for this purpose. The various kinds of wood, which are available for no other purpose, serve to supply the pot and pearl ash manufactories. Tobacco, hemp, and flax, the different kinds of grain and pulse, are successfully cultivated; and likewise all the common fruits and vegetables of England. Melons of various kinds abound, and are probably native; also the strawberry and raspberry, the latter of which grows luxuriantly in the woods. Pears and apples succeed well, both at Quebec and Montreal; and, on the shores of Lake Erie, the grape, the peach, and the nectarine, as well as all the hardier kinds of fruit, arrive at the greatest perfection. Among the wild animals are the American elk, fallow-deer, bear, wolf, fox, wild cat, racoon, martin, otter, various species of the ferret and weazel, the beaver, hare, grey and red squirrel; and in the more southern parts, the buffalo and the roebuck. Bears usually hybernate, if the season has enabled them to acquire sufficient fat; if not, they travel southward. Beeves, sheep, swine, and other domestic animals, multiply with astonishing rapidity, and seem to improve by transportation to America. Among the birds may be noticed the wild pigeon, quail, partridge, grouse of various kinds, and numerous aquatic birds. One kind of humming-bird is indigenous, and may be seen in the Quebec gardens. Fish in great variety and abundance are found in the lakes and rivers; the sturgeon is common, and the salmon and herring fisheries are considerable; seals are also met with occasionally in large shoals, in the lower part of the St. Lawrence. Fish-oil is becoming an extensive article of export,

as well as hides and horns. The rattlesnake is also occasionally met with. Canada does not seem to be rich in minerals; but iron abounds in some districts; veins of argentiferous lead have been met with at St. Paul's bay, 50 miles below Quebec; and coals, salt, and sulphur, are known to exist in the country.

PEOPLE.—The greater part of the population of Lower Canada is of French origin; in 1831 the French inhabitants exceeded 400,000. They are frugal, honest, industrious, and hospitable; but cling tenaciously to old customs and prejudices. They retain indeed all the characteristics of the old French, and present the spectacle of an old, uneducated, stationary society, in the midst of a new and rapidly-advancing country. A few families possess large properties; but among the great mass of the *habitans*, as they are called, there is an almost uniform equality of condition, property, and ignorance. They are a hard-working people; and but very few of them can read or write. At the colleges and schools between 200 and 300 annually finish their education, and are dispersed throughout the community, chiefly as notaries and surgeons; where they possess great influence over their uneducated neighbours; and generally take the lead in all public matters. The rest of the population is chiefly of British origin, with the intermixture of a few foreigners; and to them is owing the great development of the productive resources of the colony. Their number is constantly increasing by immigration from Europe; in the year ending 1845, the number of immigrants amounted to 49,944; but of these more than a half subsequently proceeded to the United States. Native Indians still occupy portions of territory along the Lakes Huron and Superior, and along the whole extent of the northern boundary; but their number is rapidly diminishing; and little or no success has attended the various efforts made to introduce civilization among them and to improve their condition.

About 1-38th part of the area of the province is estimated to be under some sort of cultivation, and is divided into townships, or signories. The latter were created by the French Government in favour of certain leading persons, who were bound to grant or 'concede' a portion to any applicant; the seigneur's profit being derived from payment of a small rent, or from astricted services of the tenant; from one-twelfth of the corn ground at the seigniorial mill; and from a fine on the transference of the property otherwise than by inheritance. To this system it is owing that the French population has been confined to a comparatively small extent of territory, and has never amalgamated with the British; for by its enabling every person to obtain a portion of land without any immediate outlay, young men were tempted to remain at home; and being subject to feudal regulations and services, the occupiers were bound to a routine system of cultivation. Hence, the French Canadians exhibit a singular want of activity and enterprise; and their portion of the province has a dense and poor population, strongly attached to ancient habits. Under British rule various methods of granting land have been practised; but it is now all disposed of by auction sales, at which the price is instantly payable.

With respect to religion, the French colonists are all Catholics; their clergy are numerous, and are under the spiritual jurisdiction of the Bishop of Quebec, who is paid by Government. The Catholics have also a few female monastic establishments, and several public schools and colleges, where not only their clergy, but also considerable numbers of the *habitans* are educated. There is likewise an English Bishop of Quebec, appointed by the Crown, with an archdeacon and clergymen in Lower Canada, and two archdeacons and forty clergymen in Upper Canada. Episcopacy, however, is not the prevalent form of church government; there are a great many Protestant Dissenters, who have places of worship and ministers in various parts of the province. The ministers of the Church of Scotland are paid partly by Government, and partly by their congregations; the other sects support their own clergy. The system, and the means of elementary education throughout the colony are still very imperfect. The Roman Catholics have several endowed academic seminaries; but there exists no means of college education for Protestants in Lower Canada, so that many young men are annually drawn, for that purpose, into the United States; but in Upper Canada there is a college and royal grammar school at Toronto, with upwards of 100 pupils. A college also for the education of ministers of the Church of Scotland is in the course of being established at Kingston, under the patronage, and with the assistance, of the General Assembly of the Church of Scotland; and, no doubt, the literary classes of the institution will be made available for lay pupils.

GOVERNMENT.—The government of both provinces is vested in a governor-general appointed by the Crown, and assisted by a council. Formerly there was a legislative assembly for each province; but, by an act of the British parliament, these have been united into one assembly, which meets at Kingston in Upper Canada. For ad-

ministrative purposes the country is divided into districts, which are subdivided into counties, parishes, and townships. Each district has its own judges, subject to the general court of appeal; a sheriff, and a grand voyer, or inspector of the roads, whose duty it is to open new roads, and to see the established roads kept in repair. The legislative assembly has the exclusive right of raising money for the internal expenses of the colony.

COMMERCE.—The trade of Canada, from the period of its conquest by Great Britain, was regulated by the strict maxims of colonial monopoly. The St. Lawrence was rigidly closed against the entrance of all foreign vessels, nor was any Canadian vessel allowed to enter a foreign port. But the prosperity of the colony during its infancy was not materially obstructed by these restrictions, as the mother country offered at all times an ample and advantageous outlet for its surplus produce. After the United States achieved their independence, their vessels were excluded from the ports of the British colonies; and Canada was rewarded for its loyalty by the exclusive privilege of supplying the West India islands with lumber, and provisions, namely wheat, flour, biscuits, beef, pork, &c. In this manner, as the colony was originally injured for the supposed advantage of the mother country, one colony was by this enactment injured in order to benefit another. The neighbouring country of America is the natural resort of the West Indies for lumber and provisions. The voyage from New York or New Orleans to Jamaica is not more than 1000 or 600 miles, while from Quebec or Montreal the distance must be above 2000 miles; the freight of lumber and provisions, which forms a great part of the expense, must be greatly enhanced by the length of the voyage from Quebec, and still more if the articles are shipped from the United States to Canada, and thence re-shipped for the West Indies. The effect of this regulation therefore is greatly to raise the price of these necessary articles to the West India planter, to increase the expenses of sugar cultivation, and to lay the proprietors of Jamaica under contribution for the profit of the Canadian husbandman or wood-cutter. The annual expense of these restrictions to the West India planters is estimated by themselves at £1,392,353, which is, according to the same estimate, 5s. 6 $\frac{3}{4}$ d. of additional cost on every hundredweight of sugar; and thus the wisdom of monopoly cannot compass, nor does it indeed aim at, any higher end than to benefit one part of the empire by injuring another. By 3 and 6 Geo. IV., these regulations were so far relaxed that the wheat and lumber of the United States were allowed to be imported directly into the West India islands on payment of certain duties; and an act which was passed in 1831 repealed all the import duties on provisions and lumber imported from the United States into the Canadas, and gave to these colonies all the advantages of a free trade. It does not appear, however, that the Canadas ever possessed a sufficient supply of lumber and provisions for the demands of the West India islands. The natural intercourse between the West Indies and the United States was indeed greatly interrupted by these restrictions, and the countervailing restrictions of the United States. Still considerable supplies have always been imported from the latter country. Of late years, indeed, owing partly to the retaliation of America, the trade was occasionally obstructed, and large supplies of lumber and provisions were received from Canada, to the benefit of the wood-cutters and husbandmen of that country, and to the proportional injury of the West India planter.

With a view also to the improvement of her colonies, the mother country consented to sacrifice an important branch of her own trade with the north of Europe. Her commerce with those countries, namely, Russia, Norway, Sweden, and Denmark, consisted in the exchange of her manufactures for their rude produce; and among her imports from Norway, Sweden, and the countries contiguous to the Baltic, timber was a staple article. The exchange was conducted on fair and liberal principles; it was mutually advantageous to both countries, and gave rise to an extensive and flourishing trade, which employed about 428,000 tons of British shipping. In 1809 the duties on timber imported from our North American colonies were entirely repealed; while the duties on timber imported from the north of Europe were largely increased, and, by successive additions, were raised to £3:5s. per load. The repeal of this duty greatly augmented the importation of Canadian timber, and the general trade of the colony with great Britain.

But this extension of the colonial trade was purchased by the sacrifice of the timber trade with the north of Europe, which now almost entirely ceased, under the withering influence of prohibitory duties. Canada profited exactly in proportion as Great Britain was injured. For the supposed benefit of the colony, the mother country was compelled to buy the inferior timber of a distant province at a high price,

in place of the timber of Norway, of a better quality and at a lower price; and thus, here as everywhere else, we recognise the evil genius of monopoly stunting the natural progress of trade, by swelling out certain branches of it to an unnatural growth, and rooting up others. It may be also in this case doubted whether monopoly has been even subservient to its own immediate ends, and whether the undue encouragement given to the wood trade of the Canadas did not tend to obstruct rather than to promote the progress of the colony. In all newly settled countries the great and the natural employment is agriculture, which generally absorbs all the capital, and occupies all the superfluous hands which can be procured. The consequence is an ample and continually increasing supply of the means of subsistence; a great demand for labour, and high wages; and a constant and rapid increase of inhabitants. Thus the colony advances in population and in wealth; cultivation is spread over its desert wastes; there is a great demand for labour, and ample means for its support; and all classes of the community enjoy ease and comfort. But there would be no demand for labour, nor any high wages, unless the fund for paying these wages were previously procured; for no one would seek to purchase if he had not the means of paying the price; and hence it is evident that agriculture, by providing the fund for the support of labour, namely, a surplus supply of subsistence, is the spring of all this prosperity; and that, the more abundantly its produce increases, the greater will be the increase of inhabitants, and the more rapidly will the colony advance in wealth and greatness. In this view, then, the undue encouragement given by the British legislature to the wood trade of the Canadas, by diverting the industry of the country from agriculture to less beneficial objects, is calculated to retard the growth of the colony, and to render it less rich and populous than it would have been under a more free and liberal policy. The clearing of the country is not aided, as might at first be supposed, by the efforts of the Canadian wood-cutter or lumberer. It is only the tallest and the finest trees which he selects, and not one in a thousand is esteemed suitable to his purpose; while it is the practice of the farmer who clears the land for cultivation to consume all the trees on the spot. The author of the *Statistical Sketches of Upper Canada* (the Backwoodsman), though he argues strongly in favour of the existing monopoly, states, among the other pernicious effects of the trade, that "it draws the cultivators from their legitimate occupations, and makes them neglect the certainty of earning a competence by a steady perseverance in their agricultural pursuits, for a vision of wealth never to be realised." Mr. Macgregor, in his late valuable work on the British colonies, though he is decidedly in favour of the forced exportation of timber from Canada, observes that "the trees cut down for the timber of commerce are not of the smallest importance in respect to clearing the lands, although I have heard it urged in England as an argument in favour of the timber trade." In another part of his work, which treats of Prince Edward's Island, he observes: "The timber trade has been for many years of some importance, by employing a number of ships and men; but as regards the prosperity of the colony, it must be considered rather as an impediment to its improvement than an advantage, by diverting the inhabitants from agriculture, demoralizing their habits, and from its enabling them to procure ardent spirits with little difficulty, which in too many instances has led to drunkenness, poverty, and loss of health." It is a general remark, that in all cases where the new settlers have been diverted from agriculture by the timber trade, the fisheries, or any other object, the progress of the colony has been retarded, just as the Portuguese and Spanish colonies in Brazil and Peru were impoverished by the mining speculations of the early settlers. Agriculture is the true mine of wealth all over the world; and it cannot be neglected for other objects, however plausible, without impairing the national prosperity.

The timber trade is attended with other disadvantages. The wood-cutters are generally men of dissolute habits, and in every respect an inferior class to the quiet, industrious cultivators of the soil. Macgregor gives a very unfavourable account of their morality and mode of life. "After selling and delivering up their rafts," he observes, "they pass some weeks in idle indulgence, drinking, smoking, and dashing off in a long coat, flashy waistcoat and trousers, Wellington or Hessian boots, a handkerchief of many colours round the neck, a watch with a gold tinsel chain and numberless brass seals, and an umbrella." After squandering their money, they return to the woods before winter to resume their laborious pursuits. The life of a lumberer thus alternates between dissipation and extreme hardship. He spends the winter in the depth of the forest, under the imperfect shelter of his wooden habitation; and in spring when the rivers are enlarged by the melting of the snows, he is engaged in floating the timber which he has collected down the swelling stream. The water

at this season is extremely cold, yet he is day after day wet up to the middle, from the time that the floating commences till the timber is delivered to the merchants, which seldom occupies less than a month or six weeks. This constant immersion of the body in snow-water undermines the constitution, occasions severe rheumatism and other disorders, and at last brings on general debility and premature old age. In no view, therefore, in which it can be considered is this trade deserving of any special favour.

Furs have been a staple article of the Canadian trade from the first settlement of the colony. These were originally procured from the Indians by the *coureurs des bois*, who penetrated into the remote wilds of the interior, in exchange for shot, brandy, red cloths, knives, hatchets, trinkets, and a few other articles of European manufacture, and were brought to Three Rivers and Montreal. The French afterwards carried on the trade by means of licences granted to a limited number of gentlemen and old officers, any interference with whose privileges was forbidden on pain of death. From twenty to thirty canoes, each carrying from six to seven men, were employed in procuring supplies; and they were usually accompanied in their return by fifty or more canoes of Hurons and Ottawais, who descended to Montreal, for the purpose of selling their cargoes to more advantage than at Michilimackinac. The fur traders are exposed to many perils and hardships. It is only in bleak, wild, and snowy deserts, which abound in animals requiring a thick covering to protect them from the inclemency of the seasons, that furs of any value are to be found; and the trader has to brave the dangers of savage tribes, inland seas, deep and trackless forests, cataracts, and rapids. He has to make his way through the ice and the snows of winter, and amid every species of annoyance in summer from the attacks of mosquitoes and other varieties of tormenting insects. All these hardships, however, are voluntarily endured by private adventurers, by whom, after the conquest of Canada, the fur trade was carried on, aided by the *coureurs des bois*. Among these rude adventurers in the interior of the desert, and beyond the reach of legal authority, jealousies and quarrels, followed by scenes of violence, frequently took place, till they were at length associated, by the exertions of the late Sir Alexander Mackenzie, and formed into the famous North West Fur Company of Montreal. By this company the fur trade has been prosecuted with extraordinary vigour; and a spirit of enterprise has been infused into its numerous servants, under the influence of which they have surmounted fatigue and danger, and penetrated into the remotest extremities of the continent. The American expedition of Captains Lewis and Clerk, who ascended the Mississippi, and, crossing the Rocky Mountains, penetrated to the Pacific Ocean, has been already fully detailed by these enterprising travellers. Since this period the bold adventurers of the North West Company, eagerly embracing every opportunity to extend their trade, have established a line of stations or forts from Canada to the mouth of the Columbia river on the Pacific Ocean. There is from Canada, in a north-west direction, an imperfect water communication for about 1590 miles into the American wilderness to Cumberland House, a fort and storehouse of the North West Company. This communication is carried on from the St. Lawrence, through the great Lakes Erie, Huron, Superior, the Lake of the Woods, Winnipeg Lake, and by intermediate rivers, occasionally interrupted by rapids, through which the light craft employed in the service are pushed by the unrivalled skill and courage of the Canadian boatmen, and by cataracts, past which the boats must be carried for several miles. At Cumberland House the river Athabascow, descending from the Rocky Mountains, runs into one of this series of lakes. This river is ascended to its source in small boats; and a land journey across the great mountain barrier which separates the streams that flow westward into the Pacific from those that flow eastward into the Atlantic Ocean, brings the travellers to the sources of the Columbia, on which they embark, and descend the stream to its mouth in the Pacific Ocean. In this perilous journey, of from 4000 to 5000 miles, they are exposed to many accidents in travelling between the distant stations of the company, and frequently encounter the hostility of the savage tribes scattered over the desert. Courage, calmness, and presence of mind, are qualities which are greatly in request among the traders. They always carry with them the formidable rifle, with which they take a certain and deadly aim, depending on it as they do both for safety and for food. They are thus equally prepared to trade or to fight with their savage customers, and to pay them for their furs either in gold or lead. After Lord Selkirk established his colony on Red River, to which, from the beginning, the North West Company showed an inveterate hostility, long, obstinate, and bloody contests took place between these rival traders. Regular hostilities were carried on, lives were lost and prisoners taken; and

in one encounter in the desert, far beyond the limits of legal authority, about twenty or thirty of Lord Selkirk's men lost their lives. This violent opposition was terminated in 1821, by the coalition of the rival companies, namely, the Hudson's Bay and the North West Company.

The foreign trade of Canada is carried on through the ports of Quebec, Montreal, St. John's, Coteau-du-lac, and Stanfield. The principal articles of export consist of timber and ashes; the imports are coal, metals, cordage, East India produce, and various kinds of British manufacture from Europe; sugar, molasses, rum, coffee, and hardwoods from the British West Indies; with beef, pork, biscuit, rice, and tobacco, from the United States. The total value of the imports for the year 1844, was £2,385,196; and that of the exports, £1,758,199. There are small manufactories of different articles at Montreal and Quebec; and soap and candles are now exported. A cloth manufactory has been established in the township of Ascot; the number of looms in Lower Canada is supposed to be about 13,500, which produce annually 1,500,000 yards of coarse cloth, 990,000 yards of flannel, and 1,370,000 yards of linen. Iron-works are carried on to a very great extent at St. Maurice, in the district of Three Rivers; there is one iron-foundry in the district of Quebec, and six in that of Montreal.

INTERNAL COMMUNICATIONS.—The roads are generally very bad, and the lines of communication very incomplete. The St. Lawrence, however, and the lakes afford the most ample means of transport during summer, when they are clear of ice; and in winter, travelling is performed in sledges, which pass with great expedition over the frozen snow. The falls and rapids of the St. Lawrence have been avoided by short cuts (See *anté*, RIVERS); but, to make the communication more complete and secure, two extensive lines of inland navigation have been executed. The *Rideau Canal* extends from Bytown, on the Ottawa, to Kingston, on Lake Erie, a distance of 135 miles, of which, however, only 20 consist of excavation, the rest being natural channels or slack water produced by dams. It has been executed at the expense of the British Government, and cost little less than £1,000,000 sterling. The *Welland Canal* extends from the south-western part of Lake Ontario to Port Maitland, on Lake Erie, a distance of 42 miles. By means of the latter the insuperable falls of Niagara are avoided. The communication is large enough for vessels of 125 tons; and has been executed by a public company, at the cost of more than £500,000.

DIVISIONS.—As already mentioned, Canada is divided into two provinces, named Upper and Lower. Lower Canada is divided into the four districts of *Quebec, Montreal, Three Rivers, and Gaspé*; Upper Canada is divided into eleven districts, named *Home, Gore, Niagara, London, Western, Eastern, Johnston, Ottawa, Bathurst, Newcastle, Midland*. These are subdivided into counties, the areas and population of which, as in 1840, are stated in the following tables:—

I. UPPER CANADA.

<i>Counties.</i>	<i>Area in Square Miles.</i>	<i>Population.</i>	<i>Countries.</i>	<i>Area in Square Miles.</i>	<i>Population.</i>
York,	1904	60,056	Hastings,	1314	11,352
Halton,	1623	35,216	Stormont,	392	10,839
Lincoln,	658	25,544	Simcoe,	3034	9,829
Middlesex,	1898	23,741	Lanark,	964	8,550
Northumberland,	1721	20,059	Norfolk,	600	8,469
Leeds,	918	18,383	Essex,	665	8,467
Durham,	1380	15,636	Kent,	1940	8,434
Westworth,	310	15,106	Dundas,	377	6,565
Carleton,	859	14,886	Prescott,	442	5,431
Grenville,	678	13,593	Haldimand,	467	4,625
Lennox & Addington,	722	13,579	Huron,	1281	2,626
Prince Edward,	334	13,212	Russell,	641	2,585
Oxford,	897	12,537			
Frontenac,	1363	12,451	Total,	27,832	393,945
Glengarry,	450	12,094	Unsettled,	120,000	

II. LOWER CANADA.

<i>Counties.</i>	<i>Area in Square Miles.</i>	<i>Population.</i>	<i>Counties.</i>	<i>Area in Square Miles.</i>	<i>Population.</i>
Saguenay, (a)	72,000	8,385	Missisquoi,	363	8,801
Montmorency, (a)	7,396	3,743	Stanstead,	632	10,306
Orleans,	69	4,349	Shefford,	749	5,087
Quebec, (a)	13,200	10,257	Sherbrooke,	2,786	7,104
Portneuf, (a)	8,640	12,350	Drummond,	1,674	3,566
Champlain, (a)	783	6,991	Yamaska,	283	9,496
St. Maurice, (a)	9,810	12,909	Nicolet,	475	12,504
Berthier, (a)	5,760	20,255	Lothiniere,	735	9,191
L'Assomption,	208	12,767	Megantic,	1,465	2,283
La Chesnaye,	299	9,461	Dorchester,	342	11,928
Terrebonne,	3,100	16,623	Beauce,	1,987	11,900
Two Mountains,	979	20,903	Bellechasse,	581	13,529
Ottawa, (a)	34,669	4,786	L'Islet,	3,034	13,518
Vaudreuil,	316	13,111	Kamouraska,	4,328	14,557
Beauharnois,	710	16,857	Remouski,	8,840	10,061
L'Acadie,	242	11,419	Gaspé,	3,188	5,003
La Prairie,	239	18,497	Bonaventure,	4,108	8,109
Montreal,	194	4,486	Town of Montreal, .....	..	27,297
Chambly,	211	15,483	" " Quebec, .....	..	25,916
Vercheres,	192	12,319	" " Three Rivers, .....	..	4,000
Richelieu,	367	14,149	" " Wm. Henry, .....	..	2,000
St. Hyacinthe,	477	15,366			
Rouville,	384	18,115			
				194,815	499,739

The counties marked *a* extend indefinitely north, but, except near the river, are almost unfit for settlement.

In Upper Canada, the unsettled territory consists of about 120,000 square miles, and in Lower Canada, of 7174; the total area of both provinces is about 355,000 square English miles.

Cities and Towns.

QUEBEC, the capital of Lower Canada, is situate partly on a bold headland rising 350 feet above the left bank of the St. Lawrence, between it and the River St. Charles, and partly on the narrow margin of the river, below the rock. The principal part of the upper town is inclosed with fortifications which are considered to be impregnable, and the summit of Cape Diamond is crowned by the citadel, a very strong fortress. Population in 1840, 25,916. The Hotel Dieu, or General Hospital, the Roman Catholic and Protestant Episcopal Cathedrals, the Jesuits Barracks, the Parliament House, and the obelisk erected to the memory of Wolf and Montcalm, are the principal objects of interest. Quebec is situate in N. lat. $46^{\circ} 48'$, and W. long. $70^{\circ} 72'$, 420 miles from the Gulf of St. Lawrence; and is accessible to the largest ships. Montreal, situate on an island of the same name, at the mouth of the Ottawa, is prettily placed at the foot of a hill which commands a delightful prospect. Population in 1840, 27,297. It is accessible for large ships, though 600 miles from the Gulf, and its trade is very extensive. The Roman Catholic Cathedral is a very fine building, capable of containing 12,000 people; and some of the convents and hospitals are striking objects. The island is a beautiful oval-shaped tract, 32 miles long, by 10 broad, with an almost level surface, there being only one hill of considerable elevation, and one or two of smaller dimensions. It forms one seignory belonging to the Catholic clergy. Lachine, a village nine miles above Montreal, owes its prosperity to the rapids below, which have made it the landing and shipping place for goods passing between Montreal and the upper country; some part of the trade, however, is carried past it by boats through the Lachine Canal. Coteau-du-lac, at the foot of Lake St. Francis, and above the Cedar rapids, owes its rise to similar circumstances. La Prairie, on the south side of the St. Lawrence, a few miles above Montreal, is the great thoroughfare of traffic between that city and the United States. A railroad, 15 miles in length, connects it with St. John, on the Richelieu, at the foot of the navigation for lake vessels. At Chambly, below St. John, there is a strong British military post. Sorel or William-Henry, at the mouth of the Richelieu, is a less considerable town than might be expected in such a situation. Its population is only 2000. There are a military post and garrison on *Ile aux Noix*, above St. John. The banks of the river between Montreal and Quebec, are lined with numerous pretty villages, which are rendered conspicuous by their large stone churches, with shining tin-covered roofs and spires. But there is no place of much importance except the town of *Three Rivers*, at the mouth of the St. Maurice, on its left bank, which is a place of some trade and mechanical industry, and has a population of 4000. Below Quebec the settlements are few, and consist generally of fishing villages. In the Saguenay country, and the Domain, the only white occupants are found at the trading stations of the King's Posts Company, which possesses the exclusive privilege of taking furs and fish in this quarter. Stanstead, with 1200 inhabitants, and Sherbrooke, with 800, are the principal towns of the *Eastern Townships*, a tract of 6,000,000 acres, behind the French seigniorial settlements, on the borders of New Hampshire and Vermont; and which, during the last few years, have been colonized by upwards of 50,000 British and American immigrants. There are also some thriving little towns on the left bank of the Ottawa, in Lower Canada, where the lumber trade is actively carried on. Hull, opposite Bytown, with which it is connected by a chain of remarkable bridges across the falls, is the principal; its population is about 1500.

TORONTO (late YORK) the capital of Upper Canada, contains about 12,000 inhabitants, and occupies a good situation on a fine bay of Lake Ontario, which affords access to vessels drawing 15 feet water, and is sheltered by a low, circular, sandy, peninsula opposite the town. Kingston, with 5000 inhabitants, is very advantageously situate at the head of the Cataraqui river, and of the Rideau canal, on the site of the old French fort *Frontenac*. The harbour is well sheltered, convenient, and accessible to ships of 18 feet draught, and contains the royal naval station on the lake. The entrance is strongly fortified. Fort Hope and Cobourg are thriving towns between Toronto and Kingston, but occupy exposed situations on the shore of the lake. Brockville, Prescott, and Cornwall, are considerable towns on the St. Lawrence, with populations of from 1200 to 1500. Prescott is situate at the foot of the navigation for large vessels and steamers; but small steamers ply in the river between it and Coteau-du-lac, passing the Long-Sault rapids above Cornwall by means of a canal. Bytown, at the mouth of the Rideau river, on the right bank of the Ottawa, is a thriving town with 1500 inhabitants.

Perth is an increasing town, about midway between the *Ottawa* and *Lake Ontario*, and is connected with the *Rideau* canal by a lateral cut of 11 miles. *Hamilton*, at the head of *Lake Ontario*, has lately risen into importance, in consequence of the rapid occupation of the fertile country to the westward. At the mouth of the *Niagara* is the town of *Niagara*, formerly called *Newark*, which has a good harbour and an active trade, though the *Welland* canal diverts some of its business. *Queenstown* stands on the *Niagara*, at the foot of the ridge through which the river has cut its deep channel. Here a battle was fought in 1812, and a monumental pillar subsequently erected to the memory of the British general Brock, who fell in the action; but some miscreant has lately almost destroyed it by blowing out its inside with gunpowder. The other principal places worthy of notice in Upper Canada, are: *Chippeway*, a village above the falls; *Fort Erie*, opposite *Buffalo*; *Sherbrooke*, at the mouth of the *Ouse*, on *lake Erie*; *Victoria*, *Charlottesville*, and *Fort Norfolk*, on or near the bay formed by the *Long Point* in *Lake Erie*; *Amherstburg*, at the mouth of the *Detroit*, with a good harbour and a military post; *Sandwich*, opposite the city of *Detroit*; *Goderich*, on the eastern coast of *Lake Huron*; *Chatham* and *London*, on the river *Thames*, which flows through a very fertile country into *Lake St. Clair*; and *Guelph*, 45 miles W. of *Toronto*. There is also a fort, garrison, and naval station, at *Penetanguishene*, on *Gloster bay*, at the south-east extremity of the *Georgian bay* of *Lake Huron*.

§ 2. *New Brunswick.*

This province consists of a compact territory of 27,700 square miles; bounded on the north by the *Bay of Chaleurs* and the river *Restigouche*; on the south by the *Bay of Fundy*; on the east by the *Gulf of St. Lawrence*; and on the west by *Lower Canada* and the *State of Maine*. The face of the country is in general pretty level, or moderately undulating, but it is diversified by several isolated groups of hills, particularly in the northern part. It is profusely watered by rivers, which in general form fine navigable streams. The province is divided into ten counties, which are subdivided into townships. The population, amounting to about 130,000, is chiefly concentrated on the *Bay of Fundy*, the lower part of *St. John's river*, and the section between it and the *St. Croix*. Timber and fish are the staple articles of export; to which may be added some ashes and agricultural produce. The total value of the exports is about £400,000; that of the imports, £600,000. *Frederickton*, the capital, is situated at the head of sloop navigation on the *St. John's*, 85 miles from the sea. Population 3000. *St. Andrews*, on *Passamaquoddy bay*, is favourably situated for trade, and contains about 5000 inhabitants. The city of *St. John's*, at the mouth of the river, contains about 8000 inhabitants. *Newcastle* and *Chatham*, on the *Miramichi* river, will probably become important centres of trade, when the country in the interior is more fully occupied. *Dalhousie*, a rising town at the western extremity of the fine *Bay of Chaleurs*. *Bathurst*, on a bay of the same name, on the south side of the *Bay of Chaleurs*. *Liverpool*, on *Richibucto harbour*, on the east coast.

§ 3. *Nova Scotia and Cape Breton.*

This province comprises the peninsula of *Nova Scotia* and the island of *Cape Breton*, which is separated from the north-east coast of the mainland by the narrow *Gut of Canso*. The isthmus which connects *Nova Scotia* with *New Brunswick* between *Chignecto Bay* and *Bay Verte* is only 10 miles across. Including both portions, the area of the province is about 17,500 square miles, of which about a fourth belongs to the island. The surface is in general moderately undulating, and contains no considerable elevation. The southern shore of the *Bay of Fundy* from *Cape Blomidon* to *Briar's Island*, is lined by a lofty mural precipice of trap rocks, from 300 to 600 feet high, against which the impetuous tides and waves of the bay dash with great violence. This dyke is broken through in several places, which afford by the *Annapolis Gut* access into the interior. The Highlands of the south-west part of the peninsula have not been explored. *Nova Scotia* has been unfavourably represented as a bleak and foggy region; but the summer fogs which prevail on the southern and south-western shores do not extend far inland. Although the winters are long and cold, yet they are not more so than in the adjacent parts of *New England*, and the climate is remarkably healthy. The soil is well adapted to agriculture; and the cultivated portion chiefly on the southern shore, which contains about a fifth part of the surface. The mineral wealth of the province is uncommonly great; but hitherto it has been turned to little account. The *Cumberland*, *Pictou*, and *Sydney* coal beds, the magnetic iron ores of *Annapolis county*, and the bog iron ore of various places, granite and freestone of excellent quality for building materials, the latter affording the blue grits so much esteemed in the *United States* for grindstones, and the former, excellent millstones; writing and roofing slates, gypsum and lime, lead and copper, copperas ore, alum earth; pipe clay; red and yellow ochres; and salt, are enumerated among its minerals. About 100,000 tons of gypsum are annually exported for the *United States*; and also large quantities of coal from the *Pictou* and *Sydney* beds. The population of the province is about 200,000, and is composed of a small number of *Acadian French*, the descendants of *American loyalists* and *German emigrants*, and of *British emigrants*. The principal trade of *Nova Scotia* is with the *West Indies*, *Britain*, and the *United States*. Lumber, fish oil, furs, &c. are exported to *Britain*; lumber, dried and pickled fish, flour, salt provisions, cattle, &c. to the *West Indies* and the *southern States*; coal and gypsum to the *northern* and *middle States*. *Halifax*, the capital, is a large town with 15,000 inhabitants, pleasantly situated on an inlet of the sea, which forms one of the finest harbours in the world. It is easily accessible, and large enough to accommodate any number of vessels. *Halifax* is the principal *British naval station* in *North America*, and contains a royal dockyard on an extensive scale. On the coast south-west of *Halifax* are *Lunenburg* and *Lieperpool*, important from their fine harbours, fishery, and flourishing trade. They have each a population of 2000. *Shelburne*, still farther south, once contained about 12,000 inhabitants, but is now almost deserted, though situated on one of the best harbours in the world. *Yarmouth*, on the south-west coast, is noted for the enterprise of its inhabitants, who carry on an active coasting trade, and a thriving traffic with *England* and the *West Indies*. *Windsor*, on the *Mines basin*, is the seat of *King's College*. *Pictou*, on the fine harbour of that name, is the principal town on the north-east coast; its population is about 2000, and its fishery and lumber trade are considerable. The village of *New Glasgow*, on *East river*, has risen with the coal trade, and small vessels are loaded there; but larger ships receive their cargoes at the mouth of the river, to which the coal is carried down in lighters. Eight miles off the mouth of the harbour, is the small island of *Pictou*. *Guysboro*, on *Milford haven*, at the head of the noble expanse called *Chedabucto Bay*; *Wilmot on Canso Harbour*; and *Sherbrooke* at the head of the navigation on *St. Mary's River*, are small towns north-east of *Halifax*.

Cape Breton Island comprehends an area of about 2,000,000 acres, and is almost divided into two parts by a deep gulf named the *Bras d'or*, which has two very narrow entrances from the *Gulf of St. Lawrence* on the north-east, and approaches at the south-west to within a mile of the *Gut of Canso*. It affords several deep and capacious harbours, and is valuable for its fisheries. Coal, salt, and gypsum are found here. The principal coal field lies between *Miray Bay* and *Sydney harbour*, and contains the *Sydney* and *Bridgeport* mines, from which increasing quantities are annually shipped. *Sydney*, on *Spanish River* or *Sydney harbour*, on the north-east side of the island, is the principal town and the only military post. Its population is about 1000, and its trade and fisheries are extensive. The har-

bour is one of the most secure and capacious in North America. *Louisbourg*, on the southern shore, so famous in colonial history, is now occupied by a few fishermen. *Arichat*, on Isle Madame, at the southern extremity of Cape Breton, is a large fishing village, with a pretty extensive trade. To the north of Cape Breton is the little island of *St. Paul*, directly in the track of vessels entering the Gulf of St. Lawrence. It has long been dreaded by seamen, on account of the dense fogs which prevail there, and the deep water almost close to its shores; but a lighthouse has recently been erected on it, which tends to diminish its dangers and terrors.

§ 4. Honduras.

Honduras is situate on the eastern coast of Central America, between 16° and 18° N. lat. and 88° and 90° W. long, and contains an area of 62,740 square miles. The coast is flat, and is bordered with reefs and low green islands called *keys*, which are divided by intricate and dangerous channels. From the coast the ground rises gradually into an elevated region covered with forests and marshes, and interspersed with rivers and lagoons. The climate is moist, but is said to be less unhealthy than that of the West Indies, especially during the wet season. The average annual temperature is 80° ; but, during the greater part of the year, the heat is moderated by sea breezes. The rains are very heavy, and are accompanied by violent thunder storms; and during the wet season, which lasts five months, the thermometer sinks to 60° . The shores and river banks are covered with a deep and rich alluvial soil, capable of yielding most European as well as tropical products. The forests abound with some of the finest timber trees, including mahogany and logwood, which are the staple productions of the settlement, and the cutting of which is the principal employment of the settlers. The profits, however, of the Mahogany trade are very precarious. Logwood cutting is much less expensive; but the price fluctuates even more than that of mahogany, varying from £7 to £14 a ton. Cassava, yams, arrow-root, and maize are grown, but only for home consumption; the sugar-cane, cotton, and coffee, succeed well, but are little cultivated; cocoa and an inferior kind of indigo are indigenous. Oranges, and many other fine fruits are very abundant. European cattle and other domestic animals thrive greatly. The jaguar, tapir, armadillo, racoon, grey fox, deer of various kinds, and a vast number of monkeys abound in the settlement; birds and fish are in great variety, and shell-fish are particularly plentiful. Many turtles are also taken on the coasts and sent even to London. Honduras is governed by a superintendent nominated by the Crown, and by seven magistrates elected annually by the people, who together form a council. The only town is *Balise* (the Spanish form of *Wallis*, the name of a noted buccaneer), at the mouth of the river of the same name, which consists of about 500 houses, chiefly wooden, and elevated only ten feet from the ground. The total population of the settlement scarcely exceeds 4000, of whom only 300 are whites.

STATISTICAL TABLE OF THE SETTLED BRITISH PROVINCES IN NORTH AMERICA.

Name.	Date of Settlement or Acquisition.	Area in Square Miles.	Population.	Capitals.
Lower Canada,.....	1759	194,815	499,739 }	Kingston.
Upper Canada,	1760	147,000	393,925 }	Frederickton.
New Brunswick,.....	1630	27,700	130,000	Halifax.
Nova Scotia,.....	1623 }	17,500	199,870	Charlotte-town.
Cape Breton,.....	1758 }	2,134	34,666	St. John's.
Prince Edward's Island,...	1758	35,913	81,517	Balise.
Newfoundland,.....	1583	62,740	3,958	
Honduras,.....	1670			
		557,802	1,343,675	

III. THE UNITED STATES OF NORTH AMERICA.

SITUATION, EXTENT, BOUNDARIES.—The United States of North America are bounded on the north by the British provinces of New Brunswick and Canada, the Great Lakes, and the territory of the Hudson's Bay Company, from which last they are divided by a line drawn under the parallel of 49° north latitude from the Lake of the Woods westward to the Strait of Juan de Fuca, and along the middle of that strait to the Pacific Ocean; on the east by New Brunswick and the Atlantic Ocean; on the south by the Gulf of Mexico, and a line drawn along the Rio Grande, or Rio Bravo del Norte, from its mouth upwards to the southern limit of New Mexico, then along the south-western limits of New Mexico northerly to the first branch of the Rio Gila, then along that river to its junction with the Rio Colorado, and a straight line from that junction to a point on the Pacific Ocean one league south of the southernmost point of the Port of San Diego; and on the west by the Pacific Ocean.

By the treaty of 1783, with Great Britain, the eastern boundary was fixed at the river St. Croix, from its mouth to its source, and a line drawn thence due north to the highlands which divide the waters of the Atlantic from those of the St. Lawrence. The position of the dividing ridge, which was to form the northern boundary in this quarter, was long a subject of dispute; but was at last settled by compromise in 1842. Following that ridge, to the north-western head of the river Connecticut, the boundary line then passes down the middle of that river to lat. 45° , westward on that parallel to the St. Lawrence, and then through that river and the great lakes to the north-western corner of the Lake of the Woods. From this point it was stipulated that the line should run due west to the Mississippi; but as it was afterwards discovered that the Mississippi did not reach so far north, and, as the acquisition of Louisiana by the United States had left unsettled the northern boundary west of that point, it was stipulated, that from the north-western corner of the Lake of the Woods, it should run due north to the parallel of 49° , and thence westward along that parallel to the Rocky Mountains. Beyond these the boundary likewise remained unsettled till 1846, when it was fixed, as above stated, at the 49^{th} parallel of north latitude and the Strait of Juan de Fuca; both Governments previously claiming the whole Oregon territory along the Pacific between 42° and $54^{\circ} 40'$ N. lat.

The whole of the vast region included within the boundaries above specified, contains an area of nearly 3,000,000 square miles, with a frontier line of 10,000 miles, of which about 5000 are sea-coast, and 1200 lake-coast. A line drawn across the continent from the Pacific Ocean to the Atlantic, near the middle of the States, is about 2500 miles in length; and the greatest breadth, from north to south, is nearly 1400 miles. But the portion of country comprised within the limits of the actually organized States and territories, is bounded by a line running north from the Sabine to the Missouri, and following the latter to the mouth of the White earth-river, and may be estimated to contain about 1,300,000 square miles. An almost straight line, however, drawn from the river Des Moines to Green Bay, but curving a little to the north-west, would mark the actual limits of occupancy, thus excluding about 270,000 square miles, still owned and inhabited by Indian tribes east of the Missouri.

GENERAL ASPECT.—Three great systems of mountains (See *ante*, p. 875) divide the country into three distinctly marked sections, the Atlantic table-land and slope, the Mississippi valley, and the Pacific section. The Alleghany or Appalachian mountains, which separate the first two sections, are more remarkable for their length than for their height. The mean elevation of the chain is not more than 2000 or 3000 feet, of which one half consists of the elevation of the country which forms their basis. Between the sources of the principal rivers of Alabama and Mississippi, and the great lakes, and the St. Lawrence, and about midway between the Atlantic and the Mississippi lies a vast table-land, which occupies the western part of the Atlantic States and the eastern part of the adjoining States of the Mississippi valley. On this table-land, which carries a somewhat tempered northern climate into the region south of the river Tennessee, rise five or six parallel mountain chains, of which the most remarkable are the *Blue Ridge* in Virginia, the *Kittatinny* mountains, and the *Alleghany* ridge, both in Pennsylvania. The highest range of the Alleghanies is found in New Hampshire,

under the name of the *White Mountains*, so called from the greyish-white colour of the bare rocks that form their summits. *Mount Washington*, the highest point, rises to the elevation of 6234 feet, and there are several others, which exceed 4000 and 5000 feet (See *ante*, p. 875). In Vermont, the ranges take the name of the *Green Mountains*, from their summits being covered with a spongy green moss and their sides with forests; their elevation, however, does not exceed 3500 feet.

The second mountain system, which forms the western boundary of the Mississippi valley, and is known under the various names of *Rocky*, *Stony*, *Oregon*, and *Chippewyan* mountains, is a prolongation of the cordilleras of Mexico; but it has been only partially examined. The average elevation of the summits above the base is estimated at 5000 feet; but some of them probably reach 8000 or 10,000. The elevation of the base itself is about 3000 feet above the level of the sea. The *Black Hills*, which stretch between the Upper Platte and the Missouri, below the mouth of the Yellowstone, are probably an outlying chain of this system; but little is known of their course and elevation. The *Ozark* mountains extend from the Rio del Norte to the vicinity of the Missouri, below the Osage river, attaining in some places an elevation of 3000 feet. Farther west is the prolongation of the snowy range of the mountains on the Pacific coast, which stretches northward from California to Alaska.

Along the whole Atlantic coast of the United States, from the river Hudson to the Florida channel, and gradually widening from a few miles broad in the north, to upwards of 150 in the south, is an extensive level tract very little elevated above the surface of the sea, and which has been appropriately termed the Atlantic Plain. The western limit of the plain is very distinctly marked by a rocky ledge over which the rivers fall, and to the foot of which, in the northern section, the tide penetrates. Extensive morasses and swamps, sluggish streams, and wide arms of the sea stretching far inland, are among the features of this plain, which slopes gently eastward, and may be considered as continued under the sea from the soundings which are given by all this part of the coast. The irregularities of its surface have been caused rather by the excavations which have been made below the general level by the action of running water than by any considerable elevations above it. The table-land which rises along the western border of this plain, has a general elevation of from 800 to 1200 feet, but is in some places considerably higher. A similar, but more elevated table-land lies between the heads of the Platte, Arkansas, and Missouri, and the western littoral chain of mountains; and between these two table-lands, and the mountains which rise above them, lies the great Mississippi valley, which presents the appearance of having once been the bed of a sea, or of a series of fresh-water lakes, and to have emerged from the waters at a comparatively recent period. It is in general characterized by uncommon fertility, though it contains great diversities of soil, from the richest alluvium to the most sterile flint knobs; and from the most entangled cane brakes to the poorest pine hills. There are, besides, near the Rocky Mountains, wide sandy belts, either completely barren, or only covered with a scanty vegetation of weeds and coarse grass. In some parts indeed there are wastes of moving sand, like those of the African Sahara. The eastern portions of the valley, where it is yet uncultivated, are covered with forests; but to the westward and northward extend vast *prairies*, or undulating tracts of country clear of trees, and rising to a considerable elevation in the centre. The surface of prairie, for 100 leagues west of the Mississippi, is probably, in comparison with the wooded country, in the proportion of twenty to one; the little timber which is seen occurs only on the skirts of the water-courses; and as the traveller recedes from the margins of the rivers, the prairies become more dry, sterile, and destitute not only of wood and water, but of all vegetation. The middle part of this great valley forms a plain, the elevation of which throughout its whole extent, leaving out of view a few unimportant local inequalities, varies only a few feet. There is, however, a gradual declination from the north-east towards the south-west. From Pittsburg the Ohio river has a descent of only 700 feet to its mouth, a distance of 1100 miles. The plains of Kentucky and West Tennessee are nearly on the same level as the country around Pittsburg, and proceeding westward, up the Missouri or Arkansas, we reach similar elevations, which form the exterior limits of the plain. The numerous rivers that run through it, instead of forming separate valleys, only indent narrow lines or grooves in its surface, which are barely sufficient to contain their floods. These river channels, as the current rolls on, must form a declivity; and towards the lower parts they therefore sink deep into the plain. Hence the large rivers, Ohio, Missouri, and others, seem to be bordered with abrupt hills of several hundred feet in elevation; but the tops of these hills are on the level of the great plain, and are formed by smaller streams which fall into the large rivers, where their channels are thus worn down. The plain rests on an

almost horizontal bed of limestone, of such thickness that it has never been pierced through, although, in many places, the auger has penetrated from 400 to 600 feet, in search of salt water. The rock lies but a few feet below the surface, and supports throughout its whole extent strata of bituminous coal, and saline impregnations. To the decomposition of this limestone may be attributed, in part, the fertility of the soil; while its absorbent and cavernous character prevents the accumulation of swamps and standing pools, and renders the whole plain dry and salubrious in a remarkable degree.

CLIMATE. — The climate of the United States embraces every variety of temperature, from the cold sea air of Passamaquoddy to the dry, elastic, and severe temperature of the White and the Green Mountains; rising through all the degrees of the thermometer to the climate congenial to the olive, the sugar cane, and the orange. It is, however, excessive, and subject to great and rapid changes. Captain Smith, in his account of the Chesapeake Bay, presented to Queen Anne, says, that in this country the summer is as hot as in Spain, while the winter is as cold as in France or England; and Mr. Jefferson, in his "Notes on Virginia," says, "The extremes of heat and cold, of 6° below zero, and 98° above it, are distressing." He adds, that in 1780 the Chesapeake Bay was frozen from its head to the mouth of the Potomac; and at Annapolis, where it is $5\frac{1}{4}$ miles between the nearest points of land, the ice was from five to seven inches thick, so that loaded waggons crossed over. Severe colds, rheumatisms, intermittent fevers, and agues are the natural consequences of such extremes as these. On this account the climate will not allow the inhabitants to take the exercise necessary for health, without running great risks, and very often contracting colds and chills, which end in consumption. The climate on the sea-coasts of the Eastern States, from Maine to Baltimore, is the worst of all, because, in addition to the sudden changes, cold and damp easterly winds prevail, and occasion a great deal of disease. The Americans, however, are fond of their climate, and consider it the best in the world. But, if the climate is not healthy, it is certainly beautiful to the eye; the sky is so clear, the atmosphere so dry, the tints of the foliage so inexpressibly lovely in autumn and the early winter months; and at night the stars are so brilliant, that it is not surprising the Americans should praise it, and feel proud of its apparent superiority. The climate of Britain, though unprepossessing to the eye, and depressing to the spirits, is nevertheless much more healthy than the exciting and changeable, though beautiful, atmosphere of the United States. But though in the eastern states consumption is very prevalent, in the western regions the disease is scarcely known. The American diseases generally are neuralgic, or those that affect the nerves, and are common to almost all the Union. Ophthalmia, and particularly the disease of the optic nerve, is very common in the eastern states, and there are annually more diseases of the eye in New York city alone than are perhaps found all over Europe. The *tic doloreux* is another common complaint over all America, indeed so common, that one out of ten suffers from it more or less, the majority being women. In short the climate is one of extreme excitement, and the American people are in consequence more excitable, and more rapid in muscular movement than the European stocks from which they are descended. The winters of Wisconsin, Iowa, Missouri, and Upper Canada, are dry and healthy, enabling the people to take any proportion of exercise. Michigan, Indiana, Illinois, and part of Ohio, are very unhealthy in autumn, from the want of drainage; the bilious congestive fever, ague, and dysentery, carry off large numbers of people. Virginia, Kentucky, North Carolina, and the eastern parts of Tennessee, are comparatively healthy. South Carolina and the other southern states are subject to visitations of the yellow fever, and many of the inhabitants consequently migrate at the end of each season to the northward, not only to avoid the contagion, but also to renovate their general health, which suffers from the continual demands made by the climate on their physical energies; the atmosphere of the western and southern country being even more exciting than that of the east. Vermont, New Hampshire, the inner part of New York, and all the other States that border on the great lakes, are healthy, owing to the dryness of the atmosphere being modified by the proximity of so large bodies of water. The excitement which prevails throughout the Union, and forms so remarkable a feature in the American character, is occasioned much more by climate than by any other cause; though, unquestionably, the peculiarity of the national institutions affords constant aliment for this excitement to feed on, and therefore seldom allows it to repose. The climate seems also to be, in some degree at least, the cause of two bad habits to which the Americans are much addicted, namely, the use of tobacco, and of spirituous liquors. The effect of tobacco is narcotic and anti-nervous; it allays irritation and

enables the American to indulge in stimulating habits, without the accompaniment of their immediate evil consequences. To the rapid changes of the climate, and to the extreme heat of summer, must also in a great degree be ascribed the excessive use of spirituous liquors. The system, depressed or disordered by the sudden changes, requires stimulants to equalize the pulse. The variableness, however, of the climate, says Mr. Flint, has been generally overcharged. The range of the thermometer is indeed great and sudden, sometimes amounting to 25° or 30° in a day; but, in his opinion, the corresponding flexibility of constitution which it produces, is beneficial. The country and climate, he adds, in configuration, character, and productions, correspond more nearly to those of China than to any other; and are probably as favourable to population, comfortable occupation in the open air, and longevity, as those of countries much more celebrated in these respects.

VEGETABLE PRODUCTIONS.—The United States have already made astonishing progress in industry and wealth. Agriculture has ever been the staple pursuit of the North Americans; and agricultural products have always constituted their principal articles of export. The first exports of the early colonists were the natural products of the forest: furs, lumber, pitch and tar, pot and pearl ashes, with some cattle and provisions, constituted the chief articles of trade from the northern provinces in the early part of the eighteenth century; but rice and tobacco had even then become important items of exportation from the southern colonies. At a later period wheat became the great staple of the middle and western states, and cotton that of the more tropical sections of the country. Flax and hemp thrive particularly in the rich soil of Kentucky. Maize, being suited to a great variety of soils and situations, is so universally cultivated as to have received the name of corn, as a distinctive appellation. Oats for horses, and rye for distillation, are the prevalent species of grain in the northern states; while, in the extreme south, the sugar-cane is found to flourish, and to supply about one-half of the American consumpt of sugar. Grapes for wine, and beet for sugar, are articles of prospective culture, regarding the value of which sanguine expectations are entertained. Cotton, the great staple of the United States, is raised in small quantities in Virginia and Kentucky, and is chiefly produced in the country farther south. It is the produce of the herbaceous or annual cotton-plant, and is of two kinds, the sea-island or long staple, and the upland or short-staple. The former, which is of a superior quality, is grown only along the sea-coasts of South Carolina and Georgia. Cotton was first sown in the United States in or about 1787, and was first exported in small packages in 1790; in 1836 the cotton crop produced 480,000,000 lbs., of which 386,000,000 lbs. were exported. It is estimated that good lands yield on an average from 250 to 300 lbs. of clean cotton per acre, and inferior lands from 125 to 150; and that the capital invested in the cultivation is nearly 800,000,000 dollars, or about £180,000,000 sterling. Of late a valuable oil has been obtained from the seeds. A new species, called Nan-king cotton, of a rich, yellowish colour, and fine quality, is also beginning to be cultivated. Tobacco has been the staple of Virginia and Maryland from their first settlement, and is also extensively grown in Kentucky, Ohio, Missouri, and other states. It is decidedly superior in quality to the tobacco of most other countries; and, besides the large quantity made into cigars, snuff, and twist for chewing, there is an annual exportation of from 80,000 to 90,000 hogsheads of leaf tobacco, of the value of about £1,200,000. The sugar-cane is cultivated with success in Louisiana, where several varieties are reared. The cane does not produce seed any where in Louisiana, but it blooms on the sea-coast. The annual crop is about 100,000 hhd. of sugar, with 63,000 hhd. of molasses. Rice was first cultivated in South Carolina in 1694, since which time its culture has been so successful, that, in addition to supplying the home consumption, it affords an annual surplus of from 130,000 to 150,000 tierces, of the value of £400,000 or £500,000, for exportation. We have no means of estimating the value of the grain, sheep, and cattle, raised in the United States. Indigo was formerly produced in large quantities in Carolina and Georgia, but, since the introduction of cotton, the cultivation of this plant has almost entirely ceased.

MINERAL PRODUCTIONS.—The United States are richly supplied with valuable minerals; but it is only of late that the mines have begun to be a source of wealth; nor are they yet worked in a manner or to an extent worthy of their great importance. Gold, iron, and lead, are extensively diffused; coal and salt exist in abundance; while beautiful and durable building materials are furnished by the marble, freestone, and granite quarries of different sections of the Union. The gold region, so far as the mining operations have yet been attempted, may be considered as extending along the

eastern foot of the Blue ridge, from the Rappahannock in Virginia, to the river Coosa in Alabama; but indications of gold ores have been met with as far north as Vermont, and as far south as the Gulf of Mexico; and it is asserted that there are richer ores and more valuable diluvial deposits of gold in the United States than are to be met with at Gongo-Soco in Brazil, or in the Ural mountains. The gold has hitherto been procured mostly from North Carolina, Virginia, and Georgia, and chiefly from washings; but several mining companies have lately introduced the powerful instruments of scientific mining, and are pushing their operations with great activity and success. Iron is abundantly distributed; and many new branches of iron manufacture have been introduced within the last few years; but still about one-half of the hardware and cutlery consumed is imported from Britain. Steam-engines, and all kinds of machinery, nails, fire-grates, and stoves, chain cables, agricultural and mechanical tools of all sorts, fire-arms, &c., are among the articles manufactured in the country. The process of smelting iron by means of coke has been applied with success, and will afford new facilities in the prosecution of this important branch of industry. The lead mines of the United States are extremely productive, but hitherto they have been worked but very imperfectly. They are situated in Missouri, between the Gasconade, the head waters of the White river, and the Mississippi; and in Wisconsin territory and Illinois, between the Wisconsin and Mississippi rivers, and on the opposite side of the latter. A very rich and extensive deposit of lead also occurs in St. Lawrence County, New York; and there is another in the south-western part of Virginia. The annual produce of the Missouri mines is about 3,000,000 lbs., that of the mines on the Upper Mississippi amounts to 8,000,000 lbs. The American manufactures of shot, and of red and white lead, now nearly supply the domestic consumption. Salt is chiefly made from the brine of springs, which are plentifully distributed throughout the country, and particularly in the Mississippi valley. In 1835, 2,000,000 bushels of salt were made at the Onondaga springs in New York; 1,000,000, in the western part of Pennsylvania; 2,000,000, at the Kanhawa springs in Virginia; 500,000, in Ohio; about the same quantity in Massachusetts from sea-water; forming altogether, with the quantities made in the other states, an aggregate of about 7,000,000 bushels. Coal of excellent quality is very widely and copiously distributed, and is daily becoming of greater importance, as it is more extensively used in the manufacture of iron, glass, and salt, in driving steam-engines, and for domestic purposes. There are two sorts of coal, the anthracite and the bituminous. The former is found and largely worked in Pennsylvania, from three distinct beds; two of which lie between the Lehigh and the Susquehanna, and the head waters of the Schuylkill and the northern branch of the Susquehanna, the third lies on both sides of the Lackawanna river, and of the northern branch of the Susquehanna, above and below the mouth of that tributary. This coal is largely consumed in the middle states and New England, nearly 900,000 tons being brought to market annually. The bituminous coal is found all over the valley of the Mississippi, on the head waters of the Potomac, and on the James river in Virginia. We have no data for determining the total consumption, but it is estimated that about 250,000 tons are annually consumed in and about Pittsburg; 150,000 in the salt manufacture of Western Pennsylvania; and 300,000 in the salt-works of the Kanhawa; to which, if we add the consumption of the towns in the valley for domestic purposes and manufactures, it will not be doubted that coal mining is already an important branch of the natural productions of the country.

PEOPLE.—The great mass of the citizens of the United States are the descendants of emigrants from Great Britain and Ireland; but many are also sprung from French, German, and Dutch colonists, particularly in Louisiana, Pennsylvania, and New York; and daily accessions are making to their numbers by immigration from Great Britain and Ireland, Switzerland, Germany, and other countries of western Europe. But the English language and literature are universally diffused; the children of immigrants from other nations soon lose their national peculiarities, language, and character by intermarriages, and a common education; and the Anglo-Saxon spirit completely preponderates throughout the heterogeneous mass, except in the eastern parts of Pennsylvania, where a large community of German settlers have long clung with great tenacity to their paternal language and habits. They have, however, of late begun to yield a little to the spirit of the times, and to the feelings and habits of their fellow-citizens. The total population of all the States amounted in 1840, to 17,120,527; and, when we consider that this civilized and industrious multitude exists in a region which, two centuries ago, supported only a few hundred thousands of half-clad and half-fed

savages, and look at the rapid and steady increase which has marked its progress, we see a new and most striking phenomenon in the history of the human race. Though there has been a great accession of numbers by immigration from Europe, ever since the first settlement of the country, yet there is no reason to doubt that the growth of the population is chiefly owing to the natural increase of a community multiplying itself without any check from difficulty of subsistence, or want of unoccupied lands. Nor is it a less interesting consideration, that this same facility of self-multiplication will continue to exist for an indefinite period; and that, should no external or accidental cause interfere, the United States will, before the end of the present century, form the most numerous Christian community, speaking one language, in the world. The first official census was taken in 1790, since which period there have been six decennial enumerations; their results are stated in the following table:—

<i>Year.</i>	<i>Whites.</i>	<i>Slaves.</i>	<i>Free Coloured.</i>	<i>Total Coloured.</i>	<i>Total Population.</i>
1790	3,172,464	687,897	59,466	757,363	3,929,827
1800	4,304,502	893,041	108,398	1,001,439	5,305,941
1810	5,862,004	1,191,364	186,446	1,377,810	7,239,814
1820	7,872,711	1,543,688	238,197	1,781,885	9,654,596
1830	10,537,378	2,009,043	319,599	2,328,642	12,866,020
1840	14,189,705	2,487,355	386,293	2,873,648	17,069,463

The black population of the United States, in which are included not only the negroes, but also the mulatto and mixed races, forms somewhat more than one-sixth of the total population. The free blacks are not generally admitted to political privileges; in some States their testimony is not admissible against a white man, and they are subject to some other civil disabilities. Slavery has been abolished in the eastern states and in New York, and prospectively in Pennsylvania and New Jersey, and has never existed in the north-western States to the north of Kentucky. The maritime slave-trade has been declared piracy; but a great and active inland trade is carried on from the Atlantic slave states to the new settlements in the south-west; and it is believed that the number clandestinely introduced into the country from the other side of the Atlantic has been considerable, even since the trade was declared illegal. Slavery may be said to exist in thirteen states, namely, Delaware, Maryland, Missouri, Arkansas, and all the states south of the Potomac and the Ohio. The slaves form rather more than one-third of the population of the slave-holding states; but they are unequally distributed, and the whites generally preponderate.

The aboriginal races, or Indians resident within the territory of the United States, are not included in any of the enumerations. Their total number within the constituted states and territories is estimated at about 96,000; between the states and the Rocky Mountains, 150,000; west of the mountains, 50,000; total, 296,000.

EDUCATION.—Various provisions have been made in all the states for the literary and scientific education of their citizens; in most of them common and free schools are widely distributed; and high schools, gymnasiums, and colleges, are numerous. The necessary expense is provided for either by means of “school funds,” accumulated from various sources, or by taxation; and, in the new states and territories, a thirty-sixth part of the public lands is reserved for the purposes of education. But in several of the latter, no general system of instruction has yet been introduced; and indeed, throughout the Union, there is neither any general system, nor is education carried to that extent and degree of efficiency which seem necessary, under so democratic a government, to render the people capable of beneficially exercising and performing their important political duties and privileges. “One of the most common errors, in my opinion,” says Mr. Combe, “committed by foreigners who write about America, as well as by the Americans themselves, is greatly to over-estimate the educational attainments of the people. The provision in money made by law for the education of all classes is large, compared with such countries as Britain or Austria; but, contrasted with what is necessary to bestow a really good education, it is still very deficient.” And, owing to various causes, which he specifies, the education received by probably nineteen-twentieths of the children in the agricultural districts is extremely defective.—(*Notes*, III. 103.) The Secretary of the American Common School Society estimates the total number of children in the United States between the ages of four and sixteen years, at 3,500,000; and of this number 600,000 do not enjoy the benefits of a common school education.—(*Ib.* III.) Lecturing to the people in lyceums is extensively practised, and as a mode of public instruction

it is well calculated to advance their intelligence ; but hitherto, in consequence of the defects of their education, in the primary schools, it has not yielded half its advantages. Education, however, in the higher branches of science, literature, and professional knowledge, is amply provided by a great number of universities and colleges, whose names, situations, &c. will be found in the following lists :—

COLLEGES IN THE UNITED STATES.

	Name.	Place	Founded.	In- struc- tors.	No. of Alumni.	Volumes in Libraries.
1	Bowdoin,	Brunswick, Me.	1794	8	971	25,450
2	Waterville,*	Waterville, do.	1820	6	237	7,000
3	Dartmouth,	Hanover, N. H.	1769	9	2,517	16,500
4	University of Vermont,	Burlington, Vt.	1791	6	463	10,000
5	Middlebury,	Middlebury, do.	1800	7	852	7,654
6	Norwich University,	Norwich, do.	1834	7	107	1,000
7	Harvard University,	Cambridge, Mass.	1638	20	6,131	82,000
8	Williams,	Williamstown, do.	1793	9	1,581	8,500
9	Amherst,	Amherst, do.	1821	11	858	20,000
10	Holy Cross, §	Worcester, do.	1843	9		4,300
11	Brown University,*	Providence, R. I.	1764	7	1,613	26,000
12	Yale,	New Haven, Conn.	1700	17	5,762	46,000
13	Trinity, †	Hartford, do.	1824	9	257	9,000
14	Wesleyan University, ‡	Middletown, do.	1831	7	306	12,000
15	Columbia, †.	New York, N. Y.	1754	13	1,384	14,000
16	Union,	Schenectady, do.	1795	12	2,762	16,000
17	Hamilton,	Clinton, do.	1812	10	551	10,000
18	Madison University,*	Hamilton, do.	1819	9	200	7,000
19	Geneva, †	Geneva, do.	1823	8		5,400
20	University of New York,	New York, do.	1831	11	320	4,000
21	St. John's, §	Fordham, do.	1841	16	10	10,000
22	St. Paul's, †	College Point, do.	1837	11	380	2,800
23	College of New Jersey,	Princeton, N. J.	1746	13	2,867	14,500
24	Rutgers,	New Brunswick, do.	1770	9	513	1,500
25	Burlington, †	Burlington, do.	1846	15		
26	University of Pennsylvania,	Philadelphia, Penn.	1755	7	531	5,000
27	Dickinson, †	Carlisle, do.	1783	12	579	12,000
28	Jefferson,	Canonsburg, do.	1802	8	1,000	10,000
29	Washington,	Washington, do.	1806	8	441	3,300
30	Alleghany, †	Meadville, do.	1815	5	82	8,000
31	Pennsylvania,	Gettysburg, do.	1832	11	121	2,300
32	Lafayette,	Easton, do.	1832	7	101	5,000
33	Marshall,	Mercersburg, do.	1836	11	94	1,500
34	West. University of Penn.,	Pittsburg, do.	1819	9	11	
35	St. Thomas of Villanova, §	Near Philadelphia, do.				
36	Delaware,	Newark, Del.	1833	5	71	3,600
37	St. John's,	Annapolis, Md.	1784	5	143	4,000
38	St. Mary's, §	Baltimore, do.	1799	9	187	12,000
39	Mount St. Mary's, §	Emmetsburg, do.	1830	24	137	4,000
40	St. James's, †	Near Hagerstown, do.	1842	10	3	8,750
41	Washington,	Chestertown, do.	1783	5		1,200
42	Georgetown, §,	Georgetown, D. C.	1789	12	180	25,000
43	Columbian,*	Washington, do.	1821	10	200	6,000
44	William and Mary, †	Williamsburg, Va.	1693	5		5,000
45	Hamden-Sidney,	Prince Ed. Co., do.	1783	6	1,500	8,000
46	Washington,	Lexington, do.	1812	6	600	5,000
47	University of Virginia,	Charlottesville, do.	1819	10	1,236	1,700
48	Randolph-Macon, †	Boydton, do.	1832	11	124	6,000
49	Emory and Henry, †	Glade Spring, do.	1839	3		6,540
50	Rector,*	Taylor Co., do.	1839	3		2,500
51	Bethany College,	Bethany, do.	1840	6		
52	Richmond,*	Richmond, do.	1832	3	16	
53	University of N. Carolina,	Chapel Hill, N. C.	1789	9	906	1,200
54	Davidson,	Mecklenburg Co., do.	1838	3		10,000
55	Wake Forest,*	Wake Forest, do.	1838	3	31	4,150
56	Charleston,	Charleston, S. C.	1795	6	11	3,000
57	South Carolina,	Columbia, do.	1804	8	124	1,700
58	Ersine,	Abeville Dist. do.				
59	Franklin,	Athens, G.	1785	9	558	13,000
60	Oglethorpe,	Milledgeville, do.	1836	5	53	3,000
61	Emory, †	Oxford, do.	1837	6	78	3,000
62	Mercer University,*	Pemfield, do.	1838	5	16	3,000
63	Christ Coll. and Epis. Inst., †	Montpelier, do.	1839	4		
64	University of Alabama,	Tuscaloosa, Ala.	1828	9	149	4,440
65	La Grange, †	La Grange, do.	1831	6	139	3,000
66	Spring Hill, §	Spring Hill, do.	1830	12		4,000
67	Howard,*	Marion, do.	1811	6		1,500
68	Oakland,	Oakland, Miss.	1830	5	69	7,000
69	Centenary, †	Jackson, La.	1841	5	18	4,000
70	St. Charles, §	Grand Coteau, do.	1838	21	2	4,000
71	Baton Rouge,	Baton Rouge, do.	1858	4		300
72	Franklin,	Opelousas, do.	1839	4		
73	Greenville,	Greenville, Tenn.	1794	2	110	3,000
74	Washington,	Washington Co., do.	1794	2	110	1,000
75	University of Nashville,	Nashville, do.	1806	6	398	10,000
76	Franklin,	Near Nashville, do.	1844	6	6	1,000
77	East Tennessee,	Knoxville, do.	1807	6	112	3,980
78	Cumberland University,	Lebanon, do.	1844	7	4	2,500
79	Jackson,	Columbia, do.	1830	4	43	2,000
80	Union,*	Murfreesboro', do.	1842	4		300
81	Transylvania,	Lexington, Ky.	1798	5	610	14,000
82	St. Joseph's, §	Bardstown, do.	1819	17	150	7,000
83	Centre,	Danville, do.	1819	5	237	4,500
84	Augusta, †	Augusta, do.	1825	4	60	2,500
85	Georgetown,*	Georgetown, do.	1830	7	65	5,200
86	Bacon,	Harrodsburg, do.	1836	4		1,800

COLLEGES IN THE UNITED STATES—(CONTINUED).

	Name.	Place.	Founded.	In-structors.	No. of Alumni.	Volumes in Libraries.
87	Western Military Institute,	Georgetown, Ky.	1846	6		
88	University of Ohio,	Athens, Ohio,	1821	5	151	3,500
89	Miami University,	Oxford, do.	1809	6	343	8,000
90	Franklin,	New Athens, do.	1825	4	90	2,200
91	Western Reserve,	Hudson, do.	1826	10	138	6,247
92	Keyon,†	Gambler, do.	1826	6	146	8,800
93	Granville,*	Granville, do.	1832	5	30	4,000
94	Marietta,	Marietta, do.	1832	6	91	6,250
95	Oberlin Institute,	Oberlin, do.	1834	7	147	4,000
96	Cincinnati,	Cincinnati, do.	1819	4		
97	St. Xavier,§	Cincinnati, do.	1840	14		6,000
98	Woodward,	Cincinnati, do.	1831	5	17	1,100
99	Ohio Wesleyan University,‡	Delaware, do.	1844	5	4	2,000
100	Indiana State University,	Bloomington, Ind.	1827	4	231	2,300
101	Hanover College,	South Hanover, do.	1829	7	100	2,200
102	Wabash,	Crawfordsville, do.	1833	5	49	4,200
103	Indiana Asbury University,‡	Greencastle, do.	1839	6	60	2,700
104	St. Gabriel's,§	Vincennes, do.	1843	7		
105	Franklin,	Franklin, do.	1837	5	1	200
106	Illinois,	Jacksonville, Ill.	1829	6	81	3,000
107	Shurtleff,*	Upper Alton, do.	1835	6	3	1,600
108	McKendree,‡	Lebanon, do.	1835	5	27	700
109	Knox,	Galesburg, do.	1837	6	16	3,000
110	University of St Louis,§	St Louis, Mo.	1832	17	25	12,000
111	St. Vincent's,	Cape Girardeau, do.	1843	12		5,000
112	Masonic,	Marion Co., do.	1831	5	13	
113	Missouri University,	Columbia, do.	1840	12	26	
114	St. Charles,‡	St Charles, do.	1839	5	19	
115	Fayette,	Fayette, do.		2		
116	Michigan University,	Ann Arbor, Mich.	1837	7		4,500
117	St. Philip's,§	Near Detroit, do.	1839	4		3,000
118	Iowa University,	Iowa City, Iowa,	1846			

Remarks.

The Colleges marked thus (‡) are under the direction of the *Baptists*; thus (§), *Episcopalians*; thus, (†) *Methodists*; thus (§), *Catholics*. With respect to the Colleges which are unmarked, the prevailing religious influence of those that are in the New England States is *Congregationalism*; of most of the others, *Presbyterianism*.

By instructors in the above table is meant those connected with the undergraduates; and by students, except the Roman Catholic Institutions and a few of the Colleges in the Southern and Western States, is meant *undergraduates*, or members of the four collegiate classes, not including such as are pursuing a professional education, or such as are members of a preparatory department. Some of the Colleges above enumerated are not in full operation, and scarcely deserve a place in the table. The column of *Libraries* includes the number of volumes in the *College Libraries* and in the *Students' Libraries*.

MEDICAL SCHOOLS.

Name	Place.	Founded.	Prof.	Students.	Graduates.
Maine Medical School,	Brunswick, Me.	1820	4	81	581
N. H. Medical School,	Hanover, N. H.,	1797	6	50	735
Castleton Medical College,	Castleton, Vt.,	1818	7	104	535
Vermont Medical College,	Woodstock, Vt.,	1835	7	96	332
Medical School, Harv. Univ.	Cambridge, Ms.,	1782	6	165	517
Berkshire Medical School,	Pittsfield, "	1823	5	103	473
Medical Inst. Yale College,	N. Haven, Ct.,	1810	6	85	830
Coll. Phys. & Surg. N. Y.,	N. York, N. Y.,	1807	6	219	852
Med. Inst. Geneva Coll.,	Geneva, "	1835	6	138	98
Med. Faculty Univ. N. Y.,	New York, "	1837	6	421	597
Albany Medical College,	Albany, "	1839	8	114	58
Med. Dep. Univ. Penn.,	Philadelphia Pa.,	1765	8	508	4,562
Jefferson Medical College,	" "	1824	8	480	1,410
Med. Dep. Penn. College,	" "	1809	8	99	
Franklin Medical College,	" "	1816	8	41	15
Philadelphia College of Med.	" "		7	69	
Med. School, Univ. Md.,	Baltimore, Md.,	1807	6	100	909
Washington Med. College,	" "	1827	6	25	
Med. School, Columb. Coll.,	Washington,	1825	6	50	81
Med. School, Univ. Va.,	Charlottesville,	1825	3	45	
Richmond Med. College,	Richmond Va.,	1838	6	75	14
Winchester Med. College,	Winchester, "		5		
Med. Coll. State of S. C.,	Charleston, S. C.,	1833	8	158	
Med. College of Georgia,	Augusta, Ga.,	1830	7	115	124
Med. College of Louisiana,	N. Orleans, La.,	1835	7	30	
Memphis Medical College,	Memphis, Ten.,		7		
Med. Dep. Transylv. Univ.,	Lexington, Ky.,	1838	7	214	1,351
Louisville Medical Instit.,	Louisville, "	1837	6	242	51
Western Reserve Med. Coll.	Cleveland, Oh.,	1844	7	240	26
Medical College of Ohio,	Cincinnati, "	1819	8	130	331
Indiana Medical College,	Laporte Ind.,		7	104	19
Rush Medical College,	Chicago, Ill.,	1842	6	70	16
Med. Dep. of Kemp. Coll.,	St. Louis, Mo.,	1841	9	75	19
Med. Coll. St. Louis Univ.	" "	1836	8	50	14
Willoughby Med. College,	Willoughby, "	1831	6	126	57
Med. Coll. Missouri Univ.,	Columbia, "	1840	7	92	

THEOLOGICAL SCHOOLS.

Name.	Place.	Denomination.	Commenced Operation.	No. Professors.	Students in 1878.	No. educated.	Volumes in Library.
Bangor Theological Seminary,	Bangor, Me.	Congregational,	1816	3	37	202	7,000
Theological Seminary,	Concord, N. H.	Methodist,				69	
Gilmanton Theol. Seminary,	Gilmanton, do.	Congregational,	1835	3	23		4,300
N. Hampton Theol. Seminary,	New Hampton, do.	Baptist,	1825	2	36		2,000
Theological Seminary,	Andover, Mass.	Congregational,	1807	5	93	1,006	21,250
Divinity School, Harv. Univ.,	Cambridge, do.	Cong. Univ.,	1816	2	23	238	3,000
Theological Institution,	Newton, do.	Baptist,	1825	3	33	201	5,500
Theol. Dep. Yale College,	New Haven, Conn.	Congregational,	1822	4	35	515	900
Theol. Inst. of Connecticut,	East Windsor, do.	do.	1834	3	17	151	5,000
Theol. Inst. Episc. Church,	New York, N.Y.	Prot. Episcop.,	1817	5	64	336	10,000
Union Theological Seminary,	do.	Presbyterian,	1836	5	106	211	18,000
Theol. Seminary of Auburn,	Auburn, do.	do.	1821	4	30	680	6,000
Hamilton Lit. and Theol. Inst.,	Hamilton, do.	Baptist,	1820	4	41	133	4,000
Hartwick Seminary,	Hartwick, do.	Lutheran,	1816	2	5	52	1,250
Theol. Sem. Ass. Ref. Church,	Newburg, do.	Dutch Ref.,	1836	1	11	143	3,200
Th. Sem. Dutch Ref. Church,	N. Brunswick, N. J.	do.	1784	3	36	179	
Theol. Sem. Presbyt. Church,	Princeton, do.	Presbyterian,	1812	5	153	1,626	11,000
Seminary, Lutheran Church,	Gettesburg, Pa.	Evang. Luth.,	1826	3	30	195	7,500
German Reformed,	Mercersburg, do.	Germ. Ref. Ch.	1825	2	18	121	6,000
Western Theol. Seminary,	Alleghany T., do.	Presbyterian,	1828	2	48	252	6,000
Theological School,	Canonsburg, do.	Asso. Church,	1792	2	33	147	2,000
Southern Theological Seminary,	Pittsburg, do.	Asso. Ref.,	1828	3	35	85	1,500
Western Theological School,	Meadville, do.	Cong. Univ.,	1844	4	40	9	8,000
Theological Seminary,	Philadelphia, do.	Ref. Presbyter.,		3	13		
Episcopal Theol. School of Va.,	Prince Ed. Co., Va.	Prot. Episcop.,	1822	4	38	228	5,000
Union Theological Seminary,	Richmond, do.	Presbyterian,	1824	3	20	175	4,000
Virginia Baptist Seminary,	Columbia, S. C.	Baptist,	1832	3	67		1,000
Theological Seminary,	Lexington, do.	Presbyterian,	1831	2	16	82	4,000
Furman Theological Seminary,	Fairfield Dist., do.	Lutheran,	1835	2	10	20	1,800
Mercer Theological Seminary,	Penfield, Ga.	Baptist,	1826	2	30	30	1,000
Howard Theological Institution,	Marion, Ala.	do.	1843	3	4		1,000
Western Bap. Theol. Institution,	Covington, Ky.	do.	1840	4	18	9	2,000
Southwest Theol. Seminary,	Maryville, Tenn.	Presbyterian,	1821	2	24	90	6,000
Lane Seminary,	Cincinnati, Ohio.	do.	1829	3	36	257	10,500
Theol. Dep. Keynon College,	Gambier, do.	Prot. Episcop.,	1818	5	4		4,500
Theol. Dep. Wes. Res. College,	Hudson, do.	Presbyterian,	1830	3	23	41	80
Granville Theol. Department,	Granville, do.	Baptist,	1832	2	8		500
Oberlin Theol. Department,	Oberlin, do.	Presbyterian,	1834	4	27	97	400
Theol. Sem. Ass. Ref. Church,	Oxford, do.	Asso. Ref.,	1839	1	12		
Indiana Theological Seminary,	S. Hanover, Ind.	Presbyterian,			10		
Alton Theological Seminary,	Upper Alton, Ill.	Baptist,	1835				

LAW SCHOOLS.

Place.	Name.	Professors.	Students.
Cambridge, Mass.,	Harvard University,	3	95
New Haven, Conn.,	Yale College,	3	41
Princeton, N. J.,	College of New Jersey,	1	5
Carlisle, Pa.,	Dickinson College,	1	32
Williamsburgh, Va.,	William and Mary College,	1	72
Charlottesville, Va.,	University of Virginia,		
Chapel Hill, N. C.,	North Carolina University		
Tuscaloosa, Ala.,	Alabama University,	1	
Lexington, Ky.,	Transylvania University,	3	75
Lebanon, Tenn.,	Cumberland University,	1	25
Cincinnati, Ohio.,	Cincinnati College,	3	25
Bloomington, Ind.,	Indiana State University,	1	15

Schools for the study of law are much less frequented than schools for the study of the other professions. The first institution of this nature, of much note, that was established in the United States, was the Law School at Litchfield, in Connecticut, which had from 1798 to 1827, 730 students; but it is now discontinued.

RELIGION.—There is, in the United States, no national religion or established church: every citizen is left to choose for himself; but the great bulk of the people profess Christianity according to some one or other of its numerous forms and creeds; and the churches and the clergy of all sects are supported entirely by the voluntary contributions of their members. In the newer States the supply of ministers and churches is rather deficient; but in the older and more densely-peopled States both are provided for in a manner not surpassed by the establishments of any country, with respect to the number of active ministers of religion, their comfortable subsistence, and the respectability of their character and attainments. The following table contains an approximative statement or summary of the principal religious denominations, with the number of their churches or congregations, ministers, members or communicants, and the amount of population belonging to each denomination:—

SUMMARY OF THE RELIGIOUS DENOMINATIONS.

<i>Names.</i>	<i>Churches.</i>	<i>Ministers.</i>	<i>Communicants.</i>
Roman Catholics,.....	907	717	1,190,700
Protestant Episcopalians,.....	1,232	1,404	67,550
Presbyterians, Old School,.....	3,376	1,713	179,453
Presbyterians, New School,.....	1,651	1,551	155,000
Cumberland Presbyterians,.....	570	300	60,000
Other classes of Presbyterians,.....	530	293	40,500
Dutch Reformed,.....	276	289	32,840
German Reformed,.....	261	803	75,000
Evangelical Lutherans,.....	1,452	598	150,000
Moravians,.....	22	24	6,000
Methodist Episcopal,.....		3,042	1,112,756
Methodist Protestant Church, ..		740	64,313
Reformed Methodists,.....		75	3,000
Wesleyan Methodists,.....		600	20,000
German Methodists (United Brethren),...	1,800	500	15,000
Allbright Methodists (Evangel. Associ'an),	600	250	15,000
Mennonites,.....	400	250	58,000
Orthodox Congregationalists,.....	1,727	1,584	179,176
Unitarian Congregationalists,.....	300	250	30,000
Universalists,.....	1,194	700	60,000
Swedenborgians,.....	42	30	5,000
Regular Baptists,.....	7,883	4,651	655,536
Six-Principle Baptists,.....	20	22	3,400
Seventh-Day Baptists,.....	63	58	6,943
Free-Will Baptists,.....	1,165	771	63,000
Church-of-God Baptists,.....	130	90	8,000
Reformed Baptists, (Campbellites),	1,800	1,000	160,000
Christian Baptists (Unitarians),.....	650	782	35,600

The Presbyterians are the prevailing sect throughout New England, New York, New Jersey, Pennsylvania, and the western parts of Maryland and Virginia; they are also numerous in the north-western States. The Methodists are more generally diffused throughout the States than any other sect. They are least numerous in New England and Louisiana, and most numerous in the middle States. The Baptists predominate in Rhode Island, Virginia, Kentucky, and most of the States farther south. The Catholics are numerous in the cities of the middle States, in which there are many French and Irish; they are spread over Maryland, have many congregations in Missouri, Illinois, and part of Kentucky, and predominate in Louisiana. They have one archbishop, who resides at Baltimore, and ten bishops. The Episcopalians have congregations in all the Atlantic and in most of the western States; they are most numerous in Connecticut, the middle States, Virginia and South Carolina; but in none do they hold more than the third or fourth rank in respect of numbers. They have twelve bishops in the Atlantic States, one in Ohio, and one in Kentucky. The Unitarians have churches in all the large cities of the eastern and middle States; but, except in Massachusetts, they have made little progress among the country population. The Quakers are most numerous in Pennsylvania; they have also congregations in New York, Virginia, North Carolina, and New England. Besides the distinct sects mentioned in the table, schisms occasionally arise, by which congregations become separated into two parts, each following its favourite pastor, without any change of denomination, discipline, or mode of worship.

GOVERNMENT.—The Government, as established by the constitution of 1787, is in form a federal representative democracy. The executive power is vested in the President, who holds his office for the term of four years. He is chosen by the electoral colleges of the several States, each of which consists of a number of electors equal to the whole number of the senators and representatives of the State in Congress. These electors are themselves appointed in the manner prescribed by the State legislatures; being in some cases chosen directly by the people, and in others by the legislatures. A majority of the aggregate number of votes given is necessary to the President's election; but if none of the candidates has such a majority, the House of Representatives of the General Congress chooses one of the three candidates who have the greatest number of votes; and, in doing so, the vote is taken by States, the representatives of each State having only one vote, which must of course be

determined by the majority of their number. The Vice-President is chosen in the same manner, and for the same term; but, in the case of there being no choice by the electors, the vacancy is supplied by the Senate choosing one of the two persons who have the highest number of votes. No person can be President, or Vice-President, unless he is a natural born citizen of the age of thirty-five years at least, and has been fourteen years a resident in the United States. The President is commander-in-chief of the army and navy of the United States, and of the militia of the several States when in the service of the Union. With the concurrence of two-thirds of the Senate he has power to make treaties; and, subject to the same restriction, he appoints the principal civil and military officers. He has also a qualified veto on the bills presented to him by Congress; but, notwithstanding his disapproval, any bill becomes a law if passed by a vote of two-thirds in each House. He receives ambassadors and other public ministers; takes care that the laws are faithfully executed; and grants commissions to all the officers of the United States. He has a salary of 25,000 dollars, and "the white house" at Washington for his official residence. The Vice-President is president of the Senate; and, in case of the death, resignation, or removal of the President, the powers and duties of that office devolve upon him for the remainder of the term. This provision came into operation for the first time in the year 1841, in consequence of the death of General Harrison, the ninth president, after he had held the office only one month.

The legislative power is vested in a Congress, consisting of a Senate and a House of Representatives. The Senators are chosen by the legislatures of the several States, for the term of six years, each State sending two Senators; and no other qualification is required than that the person so chosen shall have attained the age of thirty years, and shall have been nine years a citizen of the United States. The Senate, in addition to its legislative powers, has a concurrent voice with the President in the ratification of treaties, and on executive nominations, and has the sole power of trying persons impeached by the House of Representatives. The Representatives are chosen for the term of two years by the people of the several States, the electors being those qualified to vote for the most numerous branch of the State legislature. The number of the representatives of each State is regulated by the amount of its population, three-fifths of the slaves being included in the population of the slaveholding states (that is to say, five slaves being counted as three persons); and there is one representative for each 47,700 inhabitants. The House of Representatives choose their own speaker and other officers; they have the sole power of impeaching public delinquents; and all bills for raising revenue must originate with them. No person who has not attained the age of twenty-five years, and been seven years a citizen of the United States, is eligible as a representative. The Congress must assemble at least once a-year. It has the power to impose and collect taxes, duties, imposts, and excises, except on articles exported; to borrow money on the credit of the United States; to regulate commerce; to coin money, and regulate the standard of weights and measures for all the Union; to establish post-offices and post-roads; to make laws for the punishment of piracies and felonies committed on the high seas, and of offences against the law of nations; to declare war and grant letters of marque and reprisal; to raise and support an army and navy; to provide for calling out the militia to execute the laws of the Union, suppress insurrections, and repel invasions; to provide for arming, organizing, and disciplining the militia; and to make all laws necessary to carry into execution the powers vested by the constitution in the government of the United States. Congress also holds the same direct authority over the district of Columbia, as is held by the State legislatures over their respective territories. Congress meets on the first Monday of December each year, and continues to sit till the business is disposed of; but an extraordinary meeting may be called by the President. Every member is paid for his attendance, and has his travelling expenses defrayed to and from Washington. The allowance to each member is eight dollars a-day during the period of his attendance in Congress; and eight dollars for every twenty miles travel in the usual road, in going to and returning from the seat of government.

The Department of State was established in 1789. The Secretary of State conducts the negotiations with foreign powers, and conducts the correspondence with the public ministers abroad, and with those of foreign powers to the United States. He has the charge of the federal seal; preserves the originals of laws and treaties; has the control of the patent office; and keeps the evidence of copyrights. To his

department are attached a diplomatic bureau, a consular bureau, a home bureau, the archives, and the patent office.

The Secretary of the Treasury superintends the financial concerns of the government; he is required to report annually to Congress the state of the finances, and to recommend measures for improving the condition of the revenue. To this department are attached, besides the secretary, two controllers, five auditors, the register, the treasurer, the solicitor of the treasury, the mint, and the land office. The principal mint was established, in 1792, at Philadelphia, and still remains there; but branch mints have been established at Charlotte, in North Carolina; Dahlonega, in Georgia; and New Orleans.

The War Department is charged with the direction and government of the army; the constructing of fortifications; the execution of topographical surveys; and the direction of Indian affairs. Attached to, and under the direction of the Secretary at War, are the engineer department, ordnance department, topographical bureau, office of Indian affairs, requisition bureau, bounty-land bureau, pension office, paymaster-general's office, adjutant-general's office; quartermaster-general's office, commissary-general's office, &c.

The Secretary of the Navy has the management and control of the navy in general. This department was instituted in 1798: and, in 1815, the Board of Commissioners for the Navy, three in number, was instituted. The board, under the superintendence of the secretary, execute the ministerial duties of the department relative to the construction and employment of ships, &c.

The post-office is under the charge of the postmaster-general, who has the appointment of the postmasters throughout the country, and the power of making contracts for carrying the mail. To this department belong the contract office, the appointment office, and the inspection office. The number of post-offices in the United States, in 1847, were 15,146; the length of mail routes in the same year was 153,818 miles. The revenue for the same year was 3,955,893 dollars, and the expenditure 3,979,570 dollars. The amount paid to Postmaster 1,060,223, and for the transportation of the mails 2,476,455 dollars.

The army is under the command of the major-general, who is styled the General-in-Chief, and who resides at Washington. There are two divisions of the army, at the head of each of which is a brigadier-general. The western division comprehends all the country west of the Mississippi, with head-quarters at New Orleans, Louisiana; the eastern comprises the country east of the Mississippi, with head-quarters at New York. Motives of economy and political jealousy have combined to keep the force of the army exceedingly low. It consists at present of 57 officers of the general staff, 83 of the medical department, 19 of the pay department, 3 of the purchasing department, 43 of the corps of engineers, 36 topographical engineers, 323 of the ordnance department; two regiments of dragoons, mustering 1498; four regiments of artillery, 3020; eight regiments of infantry, 7496; total, 12,539. The ranks of the army are chiefly filled up by foreign immigrants, the necessary discipline being quite uncongenial to the feelings and habits of free citizens, and the pay being much less than good tradesmen or labourers can earn by any other employment. The militia of the States is very formidable in point of numbers, amounting in 1848 to 1,888,538 men; but this vast body is imperfectly armed and organized, and either extremely deficient in, or utterly destitute of, discipline and subordination.

The navy acquired much reputation in the last war with Britain; but principles of economy have here also interfered, and kept it below the state which the exigencies of the country require. In August 1848 it consisted of 11 ships of the line, of from 74 to 120 guns; 1 razee of 54 guns; 12 frigates of the first class; 2 of the second class; 22 sloops of war; 4 gun-brigs; 10 schooners; a few steam-ships; 6 store-ships and brigs; and 5 bomb-vessels.

The federal judiciary establishment consists of a supreme court, nine circuit-courts, and thirty district courts. The judges are appointed by the Senate, on the nomination of the President, and hold office during good behaviour. The supreme court is composed of a chief justice and eight associate justices, who hold a court annually at Washington; each justice also attends a certain circuit, which comprises several districts, and, with the district judge, forms a circuit-court, which is held in each district of the circuit. The district courts are held by the respective district judges alone. There is a district attorney in each district, whose duty it is to prosecute all offences cognizable by the law of the United States, and to manage all civil actions in which the Executive are concerned as parties. The marshal of each district attends the district and circuit courts, and executes the precepts directed to him

under the authority of the United States. This supreme court has an extensive jurisdiction, and performs a most important part in preserving the integrity of the union. Its judicial power comprehends all cases, in law and equity, arising under the constitution itself, or under the laws of the United States; all controversies to which the United States are a party; controversies between two or more States, or between citizens of different States, and many others. The judges are men of great talent and erudition, and their decisions are highly respected.

Such is the general government of the United States; that of each of the separate States is formed very nearly, if not entirely, on the same model; the legislative power in all matters within the territorial limits of the State, being vested in an elective body, styled the Legislature, the General Court, or the General Assembly, and consisting generally, though not in all cases, of a Senate and a House of Representatives; the executive being vested in a governor, secretary of state, and other officers; and the judiciary, in courts of law and equity, which have authority over all the citizens of the State, in matters not falling under the jurisdiction of the supreme Court of the United States. The mode of electing and appointing the members of the legislative bodies, and the executive and judiciary officers, is regulated by the constitution of each State, and is a matter with which the general government has no right to interfere. The constitutions of all the States are subject to periodical revisals by the citizens; that of Rhode Island is the only one which has suffered no change since its origin; it is still regulated by the charter granted by King Charles II.

FINANCES. — The revenue and taxation of the United States are moderate in proportion to the wealth and extent of the republic. The customs, or duties of imports and tonnage, form the most productive branch of revenue. In 1816 the receipts of the customs amounted to 36,306,874 dollars; from that period till 1825, they fluctuated between 13,000,000 and 20,000,000; from 1825 till 1834, from 20,000,000 to 30,000,000; in 1846, they amounted to 26,712,667; and in 1847 to 23,737,864 dollars. The second great source of revenue is the public domain, or public lands, which consists of tracts of territory ceded to the general government by the several States: of the lands in the territory of Louisiana purchased from France, and of those in Florida purchased from Spain. The sale of these lands in 1846 came to 2,694,452; and in 1847 to 2,498,355. After thus acquiring a claim to unoccupied lands from the individual States, or from individual powers, the Indian title to the soil is next extinguished by purchasing it from the native tribes by whom it is occupied. The lands are then accurately surveyed, according to a general system, so that the whole country is divided into townships of six miles square. Each township is subdivided into thirty-six sections, and these are still further subdivided into quarter, half-quarter, and quarter sections. The lands thus surveyed are offered for sale by proclamation of the President; and by law must be sold by public auction, the minimum upset price being one dollar and twenty-five cents (about five shillings) an acre, ready money. One section in each township is reserved for the support of schools; and all salt springs and lead mines are reserved from sale, unless by special order of the President.

The amount of revenue derived from these and other minor sources, is stated in the following table:—

STATEMENT OF DUTIES, REVENUES, AND PUBLIC EXPENDITURES IN THE FISCAL YEARS ENDING JUNE 30, 1846, AND JUNE 30, 1847.

(From a Report of the Secretary of the Treasury, December 8, 1847.)

The Receipts into the Treasury were as follows:—	1846.	1847.	Miscellaneous—continued.	1846.	1847.
	Dollars.	Dollars.		Dollars.	Dollars.
From customs, viz:—			Payment of horses, &c., lost, . . .	34,330.46	18,424.71
During the first quarter, . . .	8,861,932.14	6,153,826.58	Duties refunded under protest, . . .	859,974.77	560,483.37
During the second quarter, . . .	4,192,790.77	3,641,192.22	Repayt. for lands erroneously sold, . . .	24,734.18	23,335.12
During the third quarter, . . .	7,357,192.51	6,319,041.48	Refunding purchase-money for land sold in the Greensburg district, Louisiana, . . .	19,877.95	6,576.54
During the fourth quarter, . . .	6,300,752.45	7,633,704.38	Testing the electro-magnetic telegraphs, . . .	7,617.30	....
Total customs, . . .	26,712,667.87	23,747,864.66	Results and acct. of the Exploring Expedition, . . .	21,747.26	25,252.40
From sales of public lands, . . .	2,694,452.48	2,498,355.20	Preparing indices to the manuscript papers of Washington, . . .	1,252.00	2,000.00
From miscellaneous sources, . . .	92,126.71	100,570.51	Clerk to commissioners on goods destroyed by fire in New York, . . .	1,000.00	....
Total Receipts, exclusive of loans, &c. Bal. in the Treas., July 1, 1845 and 1846, . . .	29,499,247.06	26,346,790.37	Payt. of books ordered by Congress, . . .	9,338.55	107,871.27
	37,137,553.28	35,473,229.45	Expenses in relation to insolvent debtors of the United States, . . .	92.91	....
Total, exclusive of loans, . . .	....	....	Manual for custom-houses in relation to sugar, . . .	3,290.00	....
Avails of Treasury-notes, under act of July 22, 1846, less D. 1,391,000 funded, . . .	....	5,506,500.00	Purchase of lots in rear of P. O. Department, . . .	22,150.00	....
Avails of Treasury-notes under act of Jan. 28, 1847, less D. 1,221,850, funded, . . .	....	11,149,300.00	Deficiency in revenue from postage, Postage of departments, and (in 1846-47) of Congress, . . .	630,000.00	225,000.00
Avails of loan, act of July 22, 1846, . . .	....	4,388,149.45	Additional compensation to judges in Missouri, . . .	160,231.62	311,298.99
Avails of loan under act of Jan. 28, 1847, less D. 40,350, funded, . . .	....	4,134,950.00	Proposed edition of the Laws and Treaties of the United States, . . .	5,206.79	4,000.00
Total means, . . .	....	25,679,199.45	Building light-houses, . . .	17,500.00	10,500.00
The Expenditures, exclusive of trust funds, were as follows:—		61,152,428.90	Statutes for east front of Capitol, . . .	....	7,099.37
Civil List, . . .	944,270.84	974,324.14	Santhausen Institution, . . .	....	7,500.00
Legislature, . . .	856,909.44	875,718.40	Payments of sundry certificates, . . .	....	257,540.07
Executive, . . .	544,732.30	571,377.88	Documentary history of the U. S., . . .	....	4,250.28
Judiciary, . . .	64,485.42	36,987.98	Discriminating tonnage duties, . . .	....	25,245.00
Governments in the Territories, . . .	67,320.42	56,380.75	Certain duties refunded, . . .	....	2,801.29
Surveyors and their clerks, . . .	42,307.88	43,725.00	Expenses of mineral land service, . . .	....	128,855.20
Officers of the Mint and branches, . . .	2,000.00	1,694.44	Boundary line between united United States and British provinces, . . .	....	7,500.00
Commissioner of the Public Buildings, . . .	1,297.00	1,500.00	Salaries of Assistant treasurers and clerks, act of Aug. 6, 1846, . . .	....	11,102.61
Secy. to sign patents for public lands, . . .	2,523,624.20	2,562,008.99	Contingences under said Act, . . .	....	5,000.00
Foreign Intercourse, . . .	63,016.48	62,914.26	Compensation of special agents to examine accounts, &c., . . .	....	1,900.00
Salaries of Ministers, . . .	13,580.51	14,046.90	Plans and drawings made by topographical officers, . . .	....	4,900.00
Salaries of Secretaries of Legation, . . .	69,034.32	68,713.29	All other items of a miscel. nature, . . .	2,926.73	5,563.49
Salaries of Chargés des Affaires, . . .	8,000.00	8,500.00	Total miscellaneous, . . .	3,861,442.35	3,762,732.04
Salary of Minister resident to Turkey, . . .	89,809.00	56,750.00	Under the direction of the War Department, . . .		
Outfits of Ministers and Chargés des Affaires, . . .	3,600.00	2,000.00	Army proper, . . .	4,049,929.05	17,880,842.91
Salary of Dragoman to Turkey, . . .	38,426.53	35,365.95	Military Academy, . . .	140,852.36	124,339.21
Contingent expenses of all the missions abroad, . . .	....	4,500.00	Fortifications, and other works of defence, . . .	1,031,327.60	932,962.08
Renewal of diplomatic intercourse with Mexico, . . .	21,941.69	17,409.80	Armories, arsenals, and munitions of war, . . .	1,112,613.18	1,617,216.28
Contingencies of foreign intercourse, . . .	....	1,597.27	Harbours, roads, rivers, &c., . . .	239,625.49	36,117.67
Salary of Consul at Syria & Palestine, . . .	2,000.00	2,000.00	Surveys, . . .	74,783.64	38,121.41
Salary of the Consul at London, . . .	67,126.52	67,370.99	Indian Department, . . .	1,784,988.30	1,726,785.74
Relief of American seamen, . . .	....	2,800.00	Claims of the State of Virginia, . . .	94,434.26	1,228,200.40
Clerk-hire, office-rent, &c., to American Consul, London, . . .	....	2,800.00	Arming and equipping the militia, . . .	26,731.45	23,160.08
Interference with Barbary powers, . . .	5,248.24	6,300.00	Payments to militia and volunteers, . . .	193,011.44	162,597.55
French seamen killed or wounded in Tonkin, . . .	....	500.00	Mexican hostilities, . . .	544,246.33	1,368,758.40
Interpreters, guards, &c., at the Consulates in Turkish dominions, . . .	1,900.00	2,329.20	Individual and miscellaneous Relief, . . .	3,404,648.04	16,001,626.42
Payments under the ninth article of treaty with Spain, . . .	1,900.00	440.00	Total under direction of War Dep., . . .	32,117.21	141,247.50
Compensation for certain diplomatic services, . . .	....	3,000.00	Under the direction of the Navy Department, . . .		
To Commissr. to Sandwich Islands, . . .	2,450.00	6,417.12	Pay & subsist. Includ. medicines, &c., . . .	3,252,50.29	2,516,573.97
Outstanding claims of missions to China, . . .	....	6,079.47	Increase, repairs, armament, and equipment, . . .	1,481,534.35	1,298,503.33
Commissioner and Secretary to reside in China, . . .	5,000.00	11,250.00	Contingent Expenses, . . .	4,442,928.69	4,672,993.00
Total foreign intercourse, . . .	397,933.29	391,113.95	Navy yards, . . .	806,224.39	691,844.18
Miscellaneous, . . .	153,837.66	145,013.45	Navy hospitals and asylum, . . .	48,567.02	82,871.14
Surveys of public lands, . . .	400,777.29	501,018.49	Magazines, . . .	472.14	1,447.33
Maintenance of lighthouses, . . .	68,678.70	123,257.42	Individual and miscellaneous Relief, . . .	184,238.55	169,607.83
Marine hospitals, . . .	42,807.49	7,088.72	Marine corps, . . .	214,653.12	277,884.60
Building marine hospitals, . . .	36,656.95	38,067.57	Pensions to invalids, widows, &c., . . .	129,774.84	115,008.69
Public buildings in Washington, . . .	11,388.28	1,622.96	Mexican hostilities, . . .	147,619.40	4,264,291.61
Furnitures of the President's house, . . .	....	....	Total under direction of Navy Dep., . . .	6,450,862.70	7,931,633.64
Support of the penitentiary in Dist. Columbia, . . .	17,400.87	12,719.02	Public Debt, . . .		
Patent Fund, . . .	42,124.70	44,280.91	Paying the old public debt, . . .	32,568.07	8,081.69
Distribution of the sales of lands, . . .	25,125.23	11,181.36	Interest on the public debt, . . .	833,353.75	1,059,691.82
Payment of Maine & Massachusetts, for expenses incurred in protecting the heretofore disputed territory, . . .	56,754.63	19,805.32	Redemption of the loan of 1841, . . .	46,828.17	3,080.00
Building custom-houses, &c., . . .	115,940.00	64,062.36	Redemption of Treasury-notes, . . .	296,419.07	2,361,397.07
Survey of the coast of the U. States, . . .	106,000.00	111,000.00	Interest on Treasury-notes, . . .	8,769.52	5,007.70
Mint establishment, . . .	92,771.50	89,972.57	Interest on Mexican indemnity, . . .	....	17,427.20
Relief of sundry individuals, . . .	58,311.94	120,070.11	Redemption of Treasury notes purchased, including interest, . . .	....	30,388.89
Survey of the n.-eastern boundary line, . . .	75,000.00	6,776.61	Total public debt, . . .	1,217,823.31	3,522,002.37
Auxiliary watch in Washington, . . .	6,176.00	....	Total expenditures, . . .	28,031,114.20	59,451,177.65
Expenses incidental to loans and Treas. notes, . . .	2,400.00	26,143.34	Balance in the Treasury, July 1, 1846 and 1847, . . .	9,126,139.08	1,791,251.26
Support of lunatics for Dist. Columbia, . . .	5,325.79	5,770.45			
Three per cent. to Illinois, . . .	25,087.45	17,280.95			
Five per cent. to Michigan, . . .	1,239.33	1,262.48			
Five per cent. to Arkansas, . . .	128.76	870.62			
Two per cent. fund to Mississippi, . . .	146,923.75	....		
Three per cent. to Ohio, . . .	....	65,749.09			
Five per cent. to Florida, . . .	....	875.80			
Relief of cities of Dist. of Columbia, . . .	122,516.49	117,471.62			
Debtures and other charges, . . .	322,084.17	430,668.00			
Additional compensation to collectors, &c., . . .	88,516.25	10,697.69			

COMPARATIVE VIEW OF THE FINANCES OF THE STATES.

States.	Absolute Debt.	Contingent Debt.	Total Debt.	Annual Interest on Absolute Debt.	Amount of School Fund.	Other Productive Property.	Other Property not now productive.	Ordinary annual expenditure, exclusive of Debts and Schools.
Maine.	D.1,008,200	....	D.1,008,200	D.66,000	D.350,000	D.598,265	....	D.125,000
New Hampshire.	None.	....	None.	....	None.	None.	....	75,000
Vermont.	None.	....	None.	....	None.	None.	....	90,000
Massachusetts.	1,152,031	D.5,059,555	6,201,586	58,888	845,888	6,862,507	D.1,500	336,000
Rhode Island.	41,000	192,719	233,719	2,460	433,645	....	....	45,000
Connecticut.	None.	33,212	33,212	....	2,077,641	....	....	90,000
New York.	22,579,390	1,567,190	24,446,580	1,262,561	6,430,342	30,987,336	....	820,000
New Jersey.	37,000	....	37,000	2,200	370,742	226,253	764,671	100,000
Pennsylvania.	40,578,949	....	40,578,949	2,002,240	....	30,721,376	520,000	350,000
Delaware.	....	....	....	....	....	....	....	....
Maryland.	10,827,062	5,348,000	16,175,062	649,623	....	4,608,970	16,526,915	180,300
Virginia.	7,880,302	1,432,876	9,313,178	462,228	1,472,971	6,644,041	4,395,381	530,000
North Carolina.	None.	977,000	977,000	....	....	....	....	....
South Carolina.	3,622,039	....	3,622,039	217,322	....	4,371,255	....	215,287
Georgia.	1,579,875	200,000	1,779,875	94,792	263,000	....	....	113,966
Florida.	....	....	....	....	....	....	....	40,000
Alabama.	12,223,033	....	12,223,033	566,000	1,015,556	....	....	86,000
Mississippi.	2,271,707	5,000,000	7,271,707	136,000	....	....	2,000,000	207,000
Louisiana.	1,380,566	14,897,565	16,238,131	78,914	....	....	2,416,938	518,207
Texas.	11,050,201	....	11,050,201	....	....	....	....	86,000
Arkansas.	2,679,336	848,891	3,618,227	164,660	....	....	....	33,830
Tennessee.	3,337,856	....	3,337,856	177,426	1,346,068	4,837,430	1,101,390	165,000
Kentucky.	4,608,735	....	4,608,735	276,524	1,221,819	2,725,500	3,000,000	250,000
Ohio.	19,233,487	....	19,233,487	1,163,509	1,519,472	17,951,194	771,674	190,000
Michigan.	2,290,768	425,000	2,715,768	137,446	496,099	698,619	....	95,000
Indiana.	6,221,778	....	6,221,778	224,228	2,195,149	....	....	90,000
Illinois.	14,042,718	....	14,042,718	700,000	279,763	....	....	125,000
Missouri.	684,997	....	684,997	73,100	....	....	....	100,000
Iowa.	55,000	....	55,000	5,500	....	....	....	14,700
Wisconsin.	None.	....	None.	....	....	....	....	....
Total.	169,776,030	35,932,008	205,708,038	8,521,671	20,338,246	111,688,746	31,498,469	5,062,310
Total Jan. 1, 1847.	163,129,900	51,781,654	216,911,554	9,072,939	17,631,533	108,643,384	30,660,945	5,435,285
Total, " 1846.	179,635,022	44,388,805	224,023,827	9,930,052	16,608,719	110,396,552	23,232,715	5,455,186

These tables are believed to be very accurate, being compiled almost exclusively from official reports made by the Treasurers and Auditors to the Legislatures of the several States, near the 1st of January 1848. The account of the State debts, in particular, is full, and may be depended upon; that of the several kinds of property owned by the States of course is more defective,—for the State archives seldom afford complete materials for accurate accounts of this sort, and the property is sometimes estimated at a nominal valuation, which is much above its market value.

So far as the general interests of the State are affected by State debts, there is no difference between bonds issued and lent to corporations, and those issued to procure money for constructing public works by the State. In both cases the stock is disposed of in the foreign market, and the specie must be sent from the United States to pay the interest; and it is material to the credit of the stocks, that all loans of credit certificates to incorporations should be at once recognised and acknowledged as State debts.

The state of New York commenced issuing stock in June 1817, thirty-one years since; and none of the States had issued stock previous to 1820, except for some small amounts to satisfy revolutionary claims. The stock issued by the several States, for each period of five years since 1820, is as follows:—

From 1820 to 1825,	D.12,790,728
From 1825 to 1830,	13,679,689
From 1830 to 1835,	40,002,769
From 1835 to 1840,	108,993,392

175,466,578

The Bank of the United States has issued its bonds, post-notes, and other evidences of debt, and put them afloat in Europe, to the amount probably of 20,000,000 dollars. There are, also, a class of moneyed incorporations, which possess, or have assumed, the right of issuing bonds, and these have been sold or hypotheated in Europe, to the amount of several millions of dollars, which form an addition to the debt against this country. Shares in the capital stock of the Bank of the United States, and other banks and loan companies, are held abroad to the amount of millions of dollars, and the dividends on these stocks are to be paid from the resources of this country. If the whole sum on which the United States are paying interest or dividends to foreign capitalists was fairly ascertained, it would greatly exceed 200,000,000 dollars, and the specie drained from the country on this account, cannot be less than 12,000,000 dollars annually. For it is fair to presume, that this sum must be paid in specie, since the enterprising character of our countrymen will induce them to import foreign goods to the full amount which can be paid for by the surplus products of the country.

From 1820 till 1830, it is shown by the table of debts, that less than twenty-six millions and a half of stocks were issued. And during the same period the imports from foreign countries exceeded the exports by about 40,000,000 dollars. The exports of specie during this period exceeded the imports by several millions of dollars.

From 1830 till 1840, the amount of stocks issued, including Florida and the city of New York, exceeded 160,600,000 dollars. During the same period, the imports exceeded the exports by about two hundred millions of dollars; and the imports of specie exceeded the exports by more than fifty millions of dollars.

PRODUCTIVE INDUSTRY.—The principal occupation of the people is agriculture. Possessing abundance of fertile land, they are able not only to supply their own wants abundantly, but also to furnish distant countries with raw produce cheaper than they can themselves grow it. In most parts of the country, too, the population is not sufficiently dense to admit of that division of labour which is essential to the successful prosecution of manufactures; and as slavery exists in one half of the States, it is generally believed that manufactures can there less easily encounter the disadvantages of

slave labour than agriculture. The principal agricultural productions of the country have been already mentioned; but no means exist of ascertaining their amount in quantity or value.

§ *Manufactures.*

During the war of the revolution some manufactures sprung up in the States; and, on the adoption of the new constitution, provision was immediately made for the support of the trades, handicrafts, and manufactures of the country, by protecting duties, which are still continued. From the endless variety of soil and climate, which produce in abundance nearly every species of the raw material, and the cheap and inexhaustible supply of moving power furnished by the torrents and rivers, combined with the improvements which are daily making in the best machinery, the United States seem destined ultimately to cope with any other nation in manufacturing industry. At present, however, but a small proportion of the labour of the country is applied to this branch of industry, and only a few of the finer fabrics are produced.

Cottons.—The first cotton mill was erected at Providence, Rhode Island, in 1790; and power-looms were introduced at Waltham in 1815; in 1840, the returns collected under that census exhibit the number of spindles as 2,284,631, employing 72,199 persons, and furnishing material for the manufacture of articles to the value of £9,600,000. The capital invested was calculated at £13,202,000; and the value of their produce about fifty millions of dollars, or £10,000,000 sterling. The American cotton stuffs are more substantial and durable than the English, and they are in consequence preferred in the foreign markets to which they have been carried. They include sheetings and shirtings, printed calicoes, jeans, carpeting, sail-cloth, &c.

Woollens.—The manufacture of woollens has been carried on in families for domestic use from an early period; but it is only recently that large establishments have been formed for the purpose; some of which are supplied with the most improved machinery. The number of sheep in the United States, by the census of 1840, amounted to 19,311,374, producing 35,802,114 pounds of wool, and from four to five millions of pounds are also imported. The woollen trade employed 21,342 individuals. The value of the goods manufactured amounted to £4,500,000, and the capital embarked to £3,153,025. Among the products are broad cloths, cassimeres, satinets, flannels, blankets, carpets, &c. Five hundred looms produce annually upwards of a million of yards, of ingrained Venetian and Brussels carpeting.

Leather, &c.—The leather manufactures, including boots, shoes, saddlery, trunks, &c. are an important branch of industry; and foreign hides to the value of nearly £500,000 are annually consumed. Not only is the home trade supplied, but there is a surplus for exportation. The value of the manufacture is estimated at £9,000,000, and that of hats and caps of wool, fur, and leather, including £200,000 worth of straw-bonnets and palm-leaf hats, is supposed to amount to £3,000,000 annually.

Linens, &c.—Hemp and flax are manufactured in considerable quantities, though the general use of cotton has in a great measure superseded linen as an article of clothing. In 1810, 23,503,590 yards of linen were made in families, and this cloth is still made in that way only. About 4,500,000 yards of bagging for cotton are manufactured annually; and the yearly value of cables and cordage, to the spinning of which very ingenious machinery has been applied in some places, is estimated at £1,000,000. Some sail-cloth is also made.

Glass and paper were early objects of manufacturing industry in the colonies. The value of the produce of the glass furnaces was estimated, in 1831, at £600,000, but is now much larger. The value of the paper made in the United States is estimated to be from £1,000,000 to £1,250,000 annually; which, considering the great consumption of the country, and the small amount imported, would appear to be rather below than above the truth. From the report of the York Convention of the Friends of Domestic Industry, it appears that, in 1831, there were thirty chemical establishments in the United States producing chemical articles used in the arts to the value of £200,000 a-year. The annual value of the cabinet-ware upwards of £1,520,000. Horn, wood, ivory, and shell combs are made, to the value of about £160,000; and buttons to nearly the same amount. Both articles are exported. The total amount of capital embarked in manufactures in 1840, was £53,545,316.

§ *Fisheries.*

The Fisheries have been pursued by the New Englanders with a rare spirit of hardy enterprise, from an early period. The whale-fishery is prosecuted in the Atlantic Ocean chiefly to the south of the line, for the black whale; and in the Southern, Indian, and Pacific Oceans, for the spermaceti whale. It is carried on chiefly from New

Bedford and Nantucket; and also, but on a smaller scale, from New London, Sag Harbour, Falmouth, Bristol, Hudson, and other places. About 10,000 men are engaged in it, and the seamen are paid, not by fixed wages, but by a certain share in the profits of the voyage. The vessels in the Indian and Pacific Oceans are often absent for two or three years. Seal oil and furs are also obtained in the Antarctic seas. The annual produce exceeds the value of £1,000,000 sterling. The cod fishery is pursued on the banks and coasts of Newfoundland and Labrador, and employs upwards of 60,000 tons of small craft, some of which make several trips a-year. Those engaged in the coast fisheries generally remain longer. The produce of this fishery may be estimated at about £300,000 sterling a-year, about one-half of which is exported. The mackerel fishery employs about 50,000 tons of shipping, and produces about £400,000 annually.

§ *Commerce.*

The commerce of the United States has attained an amazing magnitude; there is no part of the globe which is not visited by American merchantmen; and the foreign trade, the coasting trade, and the inland trade carried on over an unequalled extent of artificial and natural lines of communication, are all on an equal scale. The domestic commerce may be divided into three branches: 1. That which is carried on coastwise, up the bays and large rivers, and on the great lakes in schooners, sloops, and steam-boats. 2. That which is carried on chiefly in steam-boats, but partly in rude flat-bottomed boats, on the Mississippi and its affluents. Of the steam-boats there are said to be upwards of 500 continually plying on these streams; but most of the flat-bottomed boats make but a single voyage down the river, at the end of which they are sold, and broken up for the materials of which they are constructed. The great centre of this trade is New Orleans; which, situate at the only outlet of the great valley, is necessarily the entrepot of all the produce destined for exportation, and of all the foreign articles required to supply the wants of the people of the Western States. 3. The overland trade between the Western and Atlantic States consists principally in hogs, horses, cattle, and mules, which are driven every year to the Atlantic States to the amount of many millions of dollars. But the difficulty of conveyance has hitherto prevented any other return than money. To obviate this disadvantage several canals and railroads have been undertaken, and partly finished, which will be used for the transport of merchandise as well as passengers, across the mountains. The four maritime states of New England are those most devoted to navigation and trade; and Massachusetts, though it contains less than one-twentieth of the population of the United States, owns more than one-fourth of the shipping tonnage. Next to the New Englanders, the people of New York, Pennsylvania, and Maryland, are the most commercial. Such of the inhabitants of those States, and of the Atlantic States to the south of them, as live near the mouths of the rivers, or on the great bays and estuaries, are generally of sea-faring habits. They are extremely skilful in building and managing those fast-sailing schooners and small craft which are perpetually crossing these broad waters in every direction.

The exports consist chiefly of agricultural produce, and the naval stores, lumber, and other productions of the forests. On an average of eight years, from 1803 to 1811, the produce of agriculture constituted about three-fourths in value of all the exports; of the forests, about one-ninth; of the sea, about one-fifteenth; and of manufactures, about one-twentieth; and on the average of ten years, from 1821 to 1830, the produce of agriculture constituted a little more than three-fourths in value of the exports; of manufactures, about one-twelfth; of the forests, about one-thirteenth; and of the sea, about one-thirteenth. The imports consist chiefly of manufactured articles of all sorts, particularly the finer kinds; of tropical productions, as sugar, coffee, spices; of tea, hides, wines, spirits, fermented liquors, &c.

1. EXPORTS OF THE PRODUCE OF THE UNITED STATES.

Value of the Exports of the Growth, Produce, and Manufacture of the United States, during the two Years ending June 30, 1847.

	THE SEA.	Dollars.	Dollars.	MANUFACTURES—Continued.	Dollars.	Dollars.
<i>Fisheries.</i>				Snuff and tobacco.	695,914	658,830
Dried fish, or cod fisheries.		699,559	659,629	Lined oil and spirits of turpentine.	159,915	498,110
Pickled fish, or river fisheries (her- ring, shad, salmon, mackerel).		230,495	136,221	Cordage.	62,775	27,054
Whale and other fish oil.		946,228	1,070,659	<i>Iron.</i>		
Spermaceti oil.		607,970	738,456	Pig, bar, and nails.	122,225	168,817
Whalebone.		584,570	671,901	Castings.	107,305	68,889
Spermaceti candles.		295,606	191,467	All manufactures of.	921,652	929,779
<i>THE FOREST.</i>				Spirits from molasses.	268,652	293,668
Skins and furs.		1,063,009	747,145	Sugar, refined.	392,312	124,824
Ginseng.		237,562	64,466	Chocolate.	2,177	1,653
<i>Products of Wood.</i>				Gunpowder.	140,779	88,397
Staves, shingles, boards, hewn tim- ber.		2,319,443	1,849,911	Copper and brass.	62,008	64,900
Other lumber.		324,979	342,781	Medicinal drugs.	200,505	165,793
Masts and spars.		21,652	23,270	<i>Cotton Piece Goods.</i>		
Oak bark and other dye.		61,382	95,355	Printed and coloured.	380,549	281,320
All manufactures of wood.		957,790	1,495,924	White.	1,978,731	3,345,902
Naval stores, tar, pitch, rosin, and turpentine.		1,085,712	759,221	Nankeen.	848,989	8,794
Ashes, pot and pearl.		735,689	618,000	Tow, yarn, and thread.	81,413	108,132
<i>AGRICULTURE.</i>				All other manufactures of.	255,739	338,575
<i>Products of Animals.</i>				Flax and hemp, bags and all manu- factures of.	10,765	5,305
Beef, tallow, hides, horned cattle.		2,474,208	2,434,003	“ cloth and thread.	1,464	477
Butter and cheese.		1,063,087	1,741,770	Wearing apparel.	43,140	47,101
Pork (pickled), bacon, lard, live hogs.		3,883,884	6,630,842	Combs and buttons.	35,945	17,026
Horses and mules.		382,382	277,359	Brushes.	3,110	2,967
Sheep.		304,303	29,100	Billiard-tables and apparatus.	1,583	615
<i>Vegetable Food.</i>				Umbrellas and parasols.	2,477	2,150
Wheat.		1,681,975	6,049,350	Leather and Morocco skins not sold per pound.	26,667	29,856
Flour.		11,068,069	26,133,811	Fire-engines and apparatus.	9,002	3,443
Indian corn.		1,186,693	14,395,212	Printing presses and type.	43,792	17,431
Indian meal.		945,081	4,391,334	Musical instruments.	26,375	16,970
Rye meal.		138,110	225,802	Books and maps.	66,567	44,751
Rye, oats, and other small grain and pulse.		638,221	1,600,962	Paper and stationery.	124,597	88,731
Biscuit, or ship-bread.		366,688	556,266	Paints and varnish.	52,182	54,115
Potatoes.		69,534	109,062	Vinegar.	17,489	9,526
Apples.		69,252	92,961	Earthen and stone ware.	6,521	47,08
Rice.		2,564,391	3,605,896	<i>Manufactures of</i>		
Tobacco.		8,478,270	7,242,086	Glass.	90,860	71,155
Cotton.		42,767,341	53,415,848	Tin.	8,002	6,263
Wool.		203,996	89,460	Pewter and lead.	10,278	13,684
<i>All other Agricultural Products.</i>				Marble and stone.	14,244	11,220
Flax-seed.		165,438	1,346	Gold and silver, and gold leaf.	3,600	4,268
Hops.		41,692	150,654	Gold and silver coin.	423,851	62,920
Brown sugar.		7,235	25,483	Artificial flowers and jewellery.	24,420	3,126
Indigo.		90	10	Molasses.	1,501	26,639
<i>MANUFACTURES.</i>				Trunks.	10,613	5,270
Soap and tallow candles.		630,041	606,798	Brick and lime.	12,578	17,629
Leather boots and shoes.		346,516	243,816	Domestic salt.	39,520	42,383
Household furniture.		317,407	225,700	Lead.	614,618	124,981
Coaches and other carriages.		87,712	75,369	<i>Articles not enumerated.</i>		
Hats.		74,722	59,336	Manufactured.	1,379,566	1,108,984
Saddlery.		24,357	13,402	Other articles.	1,490,303	1,199,276
Wax.		162,790	161,527	Government stores to the army, from New York.	....	326,800
Spirits from grain.		73,716	67,781			
Beer, ale, porter, and cider.		67,735	68,114	Total.	102,141,893	150,637,464

2. VALUE OF DIFFERENT ARTICLES IMPORTED.

Value of Goods, Wares, and Merchandise imported into the United States from December 1, 1846, to July 1, 1847.

Species of Merchandise.	Value in Dollars.	Species of Merchandise.	Value in Dollars.
FREE OF DUTY.		Merino shawls of wool.	590,714
<i>Bullion.</i>		Blankets.	475,083
Gold.	128,926	Hosiery and arts. made on frames.	156,022
Silver.	34,971	Worsted stuff goods.	1,469,550
<i>Specie.</i>		Woollen and worsted yarn.	79,157
Gold.	21,024,765	Woollen and worsted, embroi- dered, &c.,	4,524
Silver.	1,568,776	Manufactures of, not specified.	391,591
Teas.	2,800,733	Flannels.	21,231
Coffee.	5,784,053	Baizes.	51,918
<i>Copper.</i>		<i>Carpeting.</i>	
In plates, for sheathing ships.	616,211	Wilton, Saxony, and Aubusson.	3,173
Cotton, unmanufactured.	3,625	Brussels, Turkey, and treble in- grained.	196,869
Adhesive felt for sheathing vessels.	2,107	Venetian and other ingrained.	4,557
Plaster, unground.	22,760	Not specified.	2,017
Produce of U. S. brought back.	186,745	<i>Manufactures of Cotton.</i>	
All other articles.	358,788	Printed, stained, or coloured.	7,543,535
Total.	32,532,160	White or uncoloured.	2,422,075
MERCHANDISE PAYING DUTIES AD VALOREM.		Tamoured, cords, gimps, &c.,	171,325
<i>Manufactures of Wool, &c.</i>		Velvets, and hatters' plush.	87,899
Cloths and cassimeres.	2,969,768	Hosiery and art. made on frames.	779,583
		Twist, yarn, and thread.	365,447

<i>Species of Merchandise.</i>	<i>Value in Dollars.</i>	<i>Species of Merchandise.</i>	<i>Value in Dollars.</i>
Manufactures of, not specified,	242,490	Wire and screws,	1,423
<i>Manufactures of Silk.</i>		Braziers' and copper bottoms,	3,341
Piece goods,	4,534,487	Manufactures of, not specified,	82,956
Hosiery and articles made on frames,	201,759	<i>Brass, and Manufactures of.</i>	
Sewing-silk,	340,196	In pigs, bars, and old,	134
Articles tamboured, hats and bonnets,	579,342	Wire and screws,	2,374
Manufactures not specified,	712,335	Manufactures of, not specified,	87,313
Floss,	12	<i>Tin.</i>	
Raw,	161,624	In pigs and bars,	263,885
Bolting cloths,	18,600	In plates and sheets,	600,951
Silk and worsted goods,	1,079,465	Foil,	10,647
Camlets of goats' hair or mohair,	7,995	Manufactures of, not specified,	8,754
<i>Manufactures of Flax.</i>		<i>Lead.</i>	
Linens, bleached and unbleached,	3,563,369	Pig, bar, shot, and pipes,	3,271
Hosiery and articles made on frames,	318	Manufactures of, not specified,	2,164
Articles tamboured or embroidered,	110	<i>Pewter, manufactures of,</i>	1,188
Manufactures not specified,	347,631	<i>Manufactures of Gold and Silver.</i>	
<i>Manufactures of Hemp.</i>		Laces, galloons, tassels, &c.,	13,262
Sheetings, ticklenburgs, osna-	224,539	Epaulettes and wings,	570
Articles not specified,	50,362	Gold and silver leaf,	88
Sail duck,	107,653	Jewellery,	47,865
Cotton bagging,	10,396	Gems, pearls, &c., set or not,	68,340
<i>Clothing.</i>		Manufactures of, not specified,	18,017
Ready made,	36,209	Glaziers' diamonds,	75
Articles of wear,	419,750	Clocks,	11,842
Laces, thread, cotton, braids, &c.,	398,514	Chronometers,	7,416
Floor-cloth, patent, painted, &c.,	4,835	Watches and parts of watches,	780,224
Oil-cloth of all kinds,	19,271	Metallic pens,	22,535
Hair-cloth and hair-seating,	68,201	Square wire for umbrellas,	4,876
Lasting and mohair cloth for shoes, &c.,	46,080	Pins in packs and otherwise,	9,686
Matting, Chinese and others of flags, &c.,	66,657	Buttons, metal and other,	172,543
<i>Hats, caps, bonnets, &c., of</i>		<i>Glass.</i>	
Leghorn, straw, grass, chip, &c.,	781,181	Silvered, paintings, &c., and manufactures of, not specified,	298,736
Palm-leaf, whalebone, &c.,	28,166	Polished plates,	110,477
<i>Manufactures of Iron and Steel.</i>		Watch-crystals and spectacle-glasses,	9,551
Muskets and rifles,	2,395	Apothecaries' vials,	933
Arms, fire and side,	102,008	Bottles,	25,014
Other articles,	2,296,589	Demi-johns,	15,716
Bonnet-wire,	3,794	Window-glass,	76,079
All other,	8,825	<i>Manufactures of Paper.</i>	
Nails,	52,803	Writing,	42,150
Spikes,	265	Bank-note and copper-plate,	18,414
Chain-cables,	207,802	Binders' boards, box & sheathing,	1,497
Mill, cross-cut, and pit-saws,	490	Papier mache,	21,384
Anchors and parts thereof,	18,665	Paper-hangings,	59,051
Anvils and parts thereof,	64,871	Fancy boxes, &c.,	18,409
Smiths' hammers and sledges,	1,356	Manufactures of, not specified,	8,646
Castings, vessels of,	4,638	Blank books,	1,351
" all others,	9,218	<i>Books printed.</i>	
Braziers' rods from 3.16 to 10.16 inches,	16,349	In Hebrew,	344
Nail-roads, slit, rolled, or hammered,	7,994	In Latin and Greek,	9,240
Band or scroll, slit, rolled, or hammered,	3,736	In English,	134,894
Sheet and hoop iron,	399,042	In other languages,	41,007
Pig iron,	472,088	Illustrated periodicals, &c.,	3,472
Old and scrap,	34,868	<i>Leather.</i>	
Bar manufactured by rolling,	1,695,173	Tanned bend and sole,	347
Bar manufactured otherwise,	266,386	Tanned and dressed upper,	12,990
<i>Steel.</i>		Skins, tanned and dressed,	95,617
Cast, shear, and German,	529,782	" tanned and not dressed,	2,637
All other,	134,198	Skivers,	18,016
<i>Copper, and Manufactures of.</i>		<i>Manufactures of Leather.</i>	
In pigs, bars, and old,	94,750	Boots and shoes,	12,099
		Gloves,	285,039
		Manufactures of, not specified,	50,857
		<i>Wares.</i>	
		China, porcelain, earthen, and stone,	1,302,792
		Plated or gilt,	90,673
		Japanned, Britannia, and Wedg-wood,	46,697

<i>Species of Merchandise.</i>	<i>Value in Dollars.</i>	<i>Species of Merchandise.</i>	<i>Value in Dollars.</i>
Silver-plated and silver or plated wire,	1,591	In bottles,	60,915
Saddlery, common tinned, plated, and brass,	153 456	Vinegar,	5,181
<i>Furs.</i>		Molasses,	2,342,917
Undressed, on the skin,	174,643	<i>Oil of Foreign Fisheries.</i>	
Hatters' furs, dressed or undressed, not on the skin,	82,449	Spermaceti, whale, and other fish,	3,539
Dressed, on the skin,	46,916	Olive in casks,	21,045
Hats, caps, and manufactures not specified,	7,290	Linseed,	349,916
<i>Wood.</i>		Castor, rapeseed, hempseed, and neat's foot, . . . . .	.....
Manufactures of,	84,643	Cocoa,	54,967
Unmanufactured,	198,543	<i>Sugar.</i>	
Dye-wood in sticks,	154,778	Brown,	8,020,318
Bark of the cork-tree,	57,788	White clayed or powdered,	416,933
Marble,	34,168	Loaf and other refined,	66,084
Quicksilver,	3,634	Fruits of all kinds,	600,049
Brushes and brooms,	68,995	Spices of all kinds,	459,922
Black-lead pencils,	10,599	Camphor, crude and refined,	19,678
Slates of all kinds,	66,811	Candles, wax, tallow, &c.,	254
Raw hides and skins,	1,529,948	Cheese,	8,217
Boots and booties of silk and prunella,	20	Beef and pork,	599
Shoes and slippers of do.,	13,662	Hams and other bacon,	1,790
Grass-cloth,	3,370	Bristles,	25,243
Gunny-bags,	49,832	Saltpetre, crude and refined,	262,300
Umbrellas, &c., of silk,	25,004	Indigo,	474,583
" " all other,	186	Wood or pastel,	1,172
Flaxseed or linseed,	106,190	Ivory or bone black,	4,210
Thibet, Angora, and other goats' hair and mohair,	1,736	Bleaching powder,	131,637
Wool,	250,473	Cigars,	562,512
<i>Wines in Casks.</i>		<i>Paints.</i>	
Madeira,	5,717	Ochre, dry and in oil,	24,203
Sherry or San Lucar,	56,061	Red and white lead,	30,776
Port,	3,791	Whiting and Paris white,	2,939
Claret,	119,844	Cordage, tarred and untarred,	44,670
Teneriffe and other Canary,	11,491	Twine and seines,	29,599
Fayal and other Azores,	3	Hemp unmanufactured,	89,447
Sicily and other Mediterranean,	24,230	Manilla, sun, hemp, &c.,	233,761
Austria and other of Germany,	4,779	Cordilla unmanufactured,	14,792
Red, not enumerated,	119,411	Rags of all kinds,	158,492
White, not enumerated,	69,831	Salt,	683,289
Burgundy in bottles,	512	Coal,	213,349
Champagne,	85,886	Wheat, barley, rye, and oats,	1,112
Madeira,	579	Potatoes,	13,717
Sherry,	7,829	Fish, dried or smoked,	16,082
Port,	1,760	" pickled,	388,805
Claret,	43,788	Merchandise not enumerated,	685,163
All other,	12,337	At 5 per cent.,	658,900
<i>Foreign Distilled Spirits.</i>		At 10 " "	503,621
Brandy,	575,631	At 15 " "	323,926
From grain,	143,549	At 20 " "	1,463,674
From other materials,	57,806	At 25 " "	47,409
Cordials,	9,128	At 30 " "	825,654
<i>Beer, Ale, and Porter.</i>		At 35 " "	58,316
In casks,	17,092	<i>Value of Merchandise paying duties ad valorem,</i>	69,049,068
<i>Year ending June 30, 1846.</i>		" <i>free of duty,</i>	32,532,460
Merchandise at specific duties,	36,263,605	<i>Total,</i>	101,581,528
" " ad valorem,	60,660,453	<i>Year ending June 30, 1844.</i>	
" " free of duty,	24,767,739	Merchandise at specific duties,	31,352,863
<i>Total,</i>	121,691,797	" " ad valorem,	52,315,291
<i>Year ending June 30, 1845.</i>		" " free of duty,	21,766,881
Merchandise at specific duties,	36,914,862	<i>Total,</i>	108,435,035
" " ad valorem,	60,191,862	<i>Nine months ending June 30, 1843.</i>	
" " free of duty,	22,147,840	Merchandise at specific duties,	12,494,340
<i>Total,</i>	117,254,564	" " ad valorem,	16,684,875
		" " free of duty,	35,574,584
		<i>Total,</i>	64,753,799

3. IMPORTS FROM, AND EXPORTS TO, FOREIGN COUNTRIES.

Table, exhibiting the Value of Imports from, and Exports to, each Foreign Country, during the Year ending 30th June 1847.

	Countries.	Value of Imports.	Value of Exports.		
			Domestic Produce.	Foreign Produce.	TOTAL.
		Dollar	Dollars.	Dollars.	Dollars.
1	Russia,	924,673	626,332	124,118	750,450
2	Prussia,	7,608	182,259	19,907	202,166
3	Sweden and Norway,	613,698	391,847	28,340	420,187
4	Swedish West Indies, . . . . .	... ..	110,062	3,659	113,721
5	Denmark,	475	198,952	4,943	203,895
6	Danish West Indies,	846,748	836,672	152,631	989,303
7	Holland,	1,247,209	1,885,398	129,936	2,015,334
8	Dutch East Indies,	894,982	91,902	108,238	200,140
9	Dutch West Indies,	279,038	217,214	16,355	233,569
10	Dutch Guiana,	59,355	43,840	388	44,228
11	Belgium,	948,325	2,874,367	348,190	3,222,557
12	Hanse Towns,	3,622,185	4,068,413	266,225	4,334,638
13	Hanover, . . . . .	.....	6,469	.....	6,469
14	England,	65,170,374	70,223,777	834,921	71,058,698
15	Scotland,	1,837,014	3,645,460	162,013	3,807,473
16	Ireland,	590,240	12,397,698	31,488	12,429,186
17	Gibraltar,	26,969	365,360	55,026	420,386
18	Malta, . . . . .	.....	25,096	22,541	47,637
19	British East Indies,	1,646,457	237,783	135,454	373,237
20	Mauritius, . . . . .	.....	36,275	1,233	37,508
21	Cape of Good Hope,	36,041	106,172	.....	106,172
22	British West Indies,	947,932	3,973,252	20,140	3,993,392
23	British Guiana,	19,125	621,903	1,816	623,719
24	British Honduras,	197,232	261,398	40,519	301,917
25	British American Colonies,	2,343,927	5,819,667	2,165,876	7,985,543
26	Other British Colonies (Australia), . . . . .	.....	33,289	.....	33,289
27	France on the Atlantic,	23,899,076	17,420,385	449,046	17,869,431
28	France on the Mediterranean,	1,001,765	1,172,146	56,041	1,228,187
29	French African Ports, . . . . .	.....	5,491	.....	5,491
30	French West Indies,	151,366	569,126,	34,038	603,164
31	French Guiana,	47,775	58,287	1,990	60,277
32	Miquelon and French Fisheries,	435	.....	.....	.....
33	Bourbon, . . . . .	.....	52,557	.....	52,557
34	Spain on the Atlantic,	274,708	770,748	10,115	780,863
35	Spain on the Mediterranean,	1,016,551	1,188,340	41,063	1,229,403
36	Teneriffe and the other Canaries,	61,864	15,148	.....	15,418
37	Manilla and Philippine Isles,	494,056	32,480	44,760	77,240
38	Cuba,	12,394,867	6,005,617	972,089	6,977,706
39	Porto Rico,	2,141,929	825,079	33,985	859,064
40	Portugal,	283,330	56,893	1,335	58,228
41	Madeira,	95,857	105,031	1,389	106,420
42	Fayal and the other Azores,	34,564	9,466	525	9,991
43	Cape de Verde Islands,	2,399	71,084	17,848	88,932
44	Italy,	1,279,936	1,056,022	93,333	1,149,355
45	Sicily,	550,988	56,899	7,218	64,117
46	Sardinia,	287	630,232	16,870	647,102
47	Trieste and other Austrian Ports,	187,341	1,175,375	73,348	1,248,723
48	Turkey,	577,710	61,570	65,672	127,242
49	Mexico,	746,818	536,641	155,787	692,428
50	Central Republic of America,	80,581	73,322	23,246	96,568
51	New Granada,	156,654	53,655	19,405	73,060
52	Venezuela,	1,322,496	571,474	43,739	615,213
53	Brazil,	7,096,160	2,566,938	376,840	2,943,778
54	Argentine Republic,	241,209	123,954	52,135	176,089
55	Cisplatine Republic,	112,810	180,536	56,303	236,839
56	Chili,	1,716,903	1,461,347	210,263	1,671,610
57	Pernu,	396,223	192,978	34,559	227,537
58	Republic of Ecuador, . . . . .	.....	27,253	571	27,824
59	Chiuu,	5,583,343	1,078,655	124,229	1,832,884
60	Hayti,	1,391,589	1,187,017	111,756	1,298,773
61	South America generally,	10,500	44,427	6,213	50,640
62	Asia generally,	308,481	161,679	105,565	267,244
63	Africa generally,	559,842	700,431	44,499	744,930
64	West Indies generally, . . . . .	.....	118,137	1,539	119,676
65	Pacific Ocean (whaling),	44,588	310,187	49,887	360,074
66	Sandwich Islands,	21,039	.....	.....	.....
TOTAL,		146,545,638	150,627,464	8,011,158	158,648,622

4. IMPORTS AND EXPORTS OF EACH STATE,

During the Year ending 30th June 1847.

States.	Value of Exports.			Value of Imports.		
	Domestic Produce.	Foreign Produce.	TOTAL.	In American Vessels.	In Foreign Vessels.	TOTAL.
	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>	<i>Dollars.</i>
Maine,	1,614,071	20,132	1,634,203	445,745	128,311	574,056
New Hampshire,	1,407	2-3	1,590	13,150	3,785	16,935
Vermont,	231,985	282,313	514,298	239,641	....	239,641
Massachusetts,	9,262,777	1,985,686	11,248,462	18,189,238	16,267,770	34,477,008
Rhode Island,	191,434	935	192,369	301,075	4,414	305,489
Connecticut,	598,702	490	599,192	271,870	3,553	275,423
New York,	44,816,480	5,027,888	49,844,368	71,084,398	13,082,954	84,167,352
New Jersey,	18,428	700	19,128	4,066	771	4,837
Pennsylvania,	8,263,311	281,080	8,544,391	8,843,773	743,743	9,587,516
Delaware,	235,459	....	235,459	12,452	270	12,722
Maryland,	9,632,360	129,864	9,762,244	3,928,643	503,671	4,432,314
District of Columbia,	124,269	....	124,269	25,049	....	25,049
Virginia,	5,645,668	12,706	5,658,374	333,091	53,036	386,127
North Carolina,	284,919	....	284,919	136,483	5,901	142,384
South Carolina,	10,428,146	3,371	10,431,517	1,201,911	378,747	1,580,658
Georgia,	5,712,149	....	5,712,149	147,514	59,666	207,180
Florida,	1,808,177	2,361	1,810,538	103,180	40,118	143,298
Alabama,	9,054,580	....	9,054,580	80,492	309,669	390,161
Louisiana,	41,788,303	263,330	42,051,633	7,437,995	1,784,974	9,222,969
Mississippi, .....	....	....	....	81	255	336
Tennessee, .....	....	....	....	1,256	....	1,256
Missouri, .....	....	....	....	167,195	....	167,195
Ohio,	778,944	....	778,944	88,381	2,300	90,681
Kentucky, .....	....	....	....	26,956	....	26,956
Michigan,	93,795	....	93,795	37,369	234	37,603
Illinois,	62,100	....	62,100	266	....	266
Texas, .....	....	....	....	20,087	9,739	29,826
Total,	150,637,464	8,011,158	158,648,622	113,141,357	33,404,281	146,545,638

5. TONNAGE OF THE SEVERAL STATES AND TERRITORIES,

From 1830 to 1847 inclusive.

Years.	Registered Tonnage.	Enrolled and licensed Tonnage.	Reg. Tonnage in Whale Fishery.	Enrolled and Licensed Tonnage employed in			
				Coasting Trade.	Cod Fishery.	Mackerel Fishery.	Whale Fishery.
1830	576,675	615,311	38,911	616,978	61,554	35,973	792
1831	620,451	647,394	82,315	539,723	60,977	46,210	4-1
1832	606,989	752,460	72,868	649,627	54,027	47,427	377
1833	750,126	856,123	101,158	744,198	62,720	48,725	478
1834	857,439	901,468	108,000	753,618	66,403	61,062	364
1835	885,821	939,118	97,640	792,301	72,374	64,443	....
1836	697,774	904,328	144,680	875,023	63,307	46,424	1,573
1837	810,447	1,066,238	127,241	956,980	80,551	46,810	1,894
1838	822,591	1,173,047	119,629	1,041,105	70,064	56,649	5,229
1839	834,244	1,262,234	131,845	1,153,551	72,258	35,993	439
1840	899,764	1,280,999	136,926	1,176,694	76,035	28,269	....
1841	945,803	1,184,940	157,405	1,107,067	66,551	11,321	....
1842	975,338	1,117,031	151,612	1,045,763	54,804	16,096	377
1843	1,009,305	1,149,297	152,374	1,076,155	61,224	11,775	142
1844	1,068,764	1,211,330	168,203	1,009,614	85,224	16,170	320
1845	1,095,172	1,321,829	190,695	1,190,898	69,225	21,413	206
1846	1,130,286	1,431,798	186,980	1,289,870	72,516	36,463	430
1847	1,241,312	1,597,732	193,888	1,452,623	70,177	31,451	....

BANKING SYSTEM.—The Banking institutions of the United States are joint-stock companies, with fixed capitals, incorporated by the respective States; they are all banks of circulation, and their bills form the principal circulating medium of the country. Since President Jackson withdrew the charter from the National Bank of the United States at Philadelphia, the Union has been inundated with bank-notes of the value of a dollar and upwards, without any efficient machinery for regulating the exchange of them; and as New York is the centre of a vast commerce, notes of banks in every degree of credit, and whose head-quarters, where alone they are payable in specie, lie at every degree of distance, are there in circulation. The profession of bill-broker has in consequence sprung up to meet the wants of society, and appears to be at once an extensive and a lucrative employment. Pamphlets are published containing lists of all the banks in the Union and in Canada, and stating the value of their notes; and columns nearly a yard long and in small type, may be seen in some of the New York newspapers, embodying the same information. In short, it has become a science nearly as extensive and difficult as entomology or conchology to know the value of the currency of this great country.—(*Combe's Notes*, 1. 26.) The over-issue of notes by so many banks has fostered speculation to an extreme degree, and placed the trade of the country on a most unstable footing; and, to aggravate the evil, most of the banks have of late suspended the payment of their notes in specie.

COMPARATIVE VIEW OF THE CONDITION OF ALL THE BANKS IN THE UNITED STATES,
Near the Commencement of each Year, from 1834 to 1840, inclusive.

According to Returns nearest January 1.									
	1834.	1835.	1836.	1837.	1838.	1839.	1840.		
		<i>Dollars.</i>						<i>Dollars.</i>	<i>Dollars.</i>
Number of Banks from which returns have been received.....	406	515	559	632	663	662	661		
Number of Branches from which returns have been received.....	..	141	146	151	165	178	139		
Number of Banks, the affairs of which have been estimated for want of returns.....	100	43	8	2	..	..	61		
Number of Branches, the affairs of which have been estimated, for want of returns.....	..	5	..	..	..	..	40		
Whole number of Banks and Branches in operation.....	506	704	713	788	829	840	901		
Capital paid in.....	200,005,941	231,550,337	251,875,292	290,772,091	317,636,778	327,132,512	358,442,692		
Loans and Discounts.....	324,119,169	365,163,834	457,506,080	525,115,702	485,631,687	492,278,015	462,866,523		
Stocks.....	6,113,193	9,210,379	11,709,319	12,407,112	33,908,604	36,128,464	42,411,750		
Real Estate.....	10,850,090	11,140,167	14,194,375	19,064,451	19,073,731	16,607,832	29,181,919		
Other Investments.....	1,723,547	4,542,224	9,975,226	10,423,630	24,194,117	28,352,248	24,592,580		
Due from other Banks.....	27,329,545	40,084,038	51,876,955	59,653,910	58,195,133	52,898,357	41,140,184		
Due from other Banks on hand.....	22,154,919	21,086,301	32,115,138	36,533,327	24,964,257	27,372,966	20,797,892		
Notes of other Banks.....	26,641,753	3,061,819	4,800,076	5,366,500	904,006	3,612,567	3,623,874		
Specie.....	43,937,625	40,019,594	36,915,340	35,184,112	45,132,673	45,132,673	33,105,155		
Credit.....	94,839,570	103,692,195	140,301,038	149,185,890	116,138,910	135,170,995	106,968,572		
Deposits.....	75,666,986	83,081,365	115,104,440	127,397,185	84,691,184	90,240,146	75,696,857		
Due to other Banks.....	25,602,293	38,372,578	50,402,369	62,421,118	61,015,692	53,135,508	44,159,615		
Other Liabilities.....	..	19,320,475	25,999,234	36,560,289	59,995,679	62,946,248	43,275,183		
Aggregate of Bank Accounts.....	816,047,441	971,613,887	1,205,879,136	1,372,826,715	1,321,535,910	1,371,008,531	1,286,252,796		
Aggregate of Investments supposed to yield income.....	342,806,331	380,156,804	493,385,000	567,010,895	561,750,319	573,866,559	559,082,772		
Excess of such Investments beyond amount of capital paid in.....	142,800,387	158,906,467	211,409,708	276,238,804	243,180,261	246,234,047	200,640,080		
Aggregate of Deposits and Circulation.....	170,506,536	186,773,860	255,405,478	276,583,075	200,880,094	225,411,141	182,665,429		
Aggregate of Specie, Specific Funds, Notes of other Banks, and sums due by other Banks.....	197,108,849	225,746,438	305,807,847	339,004,193	261,845,686	278,546,649	226,825,044		
Aggregate of immediate Liabilities beyond immediate Means.....	76,126,317	108,169,783	128,811,763	139,479,277	119,247,428	129,016,563	98,667,105		
Total of Means of all kinds.....	120,982,532	117,376,655	176,296,084	199,524,916	142,598,298	149,530,086	128,157,359		
Total of Liabilities exclusive of those to Stockholders.....	418,932,648	498,326,587	622,196,763	706,490,172	704,358,577	702,383,122	657,749,877		
Total of Liabilities of the Banks to one another.....	197,104,849	245,066,913	331,307,081	375,564,182	321,823,365	341,492,897	270,100,297		
Total of Liabilities of the Banks to one another.....	76,086,837	100,142,917	134,884,426	158,618,555	114,175,002	133,406,831	106,097,691		
Total of Liabilities to all, except other Banks and Stockholders.....	121,121,992	144,623,966	281,404,712	313,143,364	260,825,773	288,357,389	270,100,227		
Net Circulation.....	72,684,651	82,606,194	108,185,960	112,652,363	91,174,653	107,798,029	86,170,680		

INTERNAL COMMUNICATIONS.—Besides numerous roads of the ordinary construction, few of which are very good, lakes, and navigable rivers, the United States now possess a series of canals and railways, of which we present a condensed summary in the following table:—

A CONDENSED SUMMARY OF THE CANALS AND RAILROADS IN THE UNITED STATES; WITH THEIR LENGTHS AND TERMINATING POINTS.

Name.				Length in Miles.	
MAINE.—Canal,—					
Cumberland and Oxford	from	Near Portland,	to	Long Pond,	20.50
Railroad,—					
Bangor and Orono,	"	Bangor,	"	Orono,	10.00
NEW HAMPSHIRE.—Canals,—					
Bow Falls,	"	"	"	"	0.75
Hookset Falls,	"	"	"	"	0.13
Amoskeag Falls,	"	"	"	"	1.00
Union,	"	"	"	"	9.00
Sewall's Falls,	"	"	"	"	0.25
Railroads,—					
Eastern,	"	Massachusetts Line,	"	Portsmouth,	15.47
Nashua and Lowell,	"	Do. do.	"	Nashua,	5½
Boston and Maine,	"	Do. do.	"	Exeter,	14.00
VERMONT.—Canals,—					
White River Falls,	"	"	"	"	0.50
Bellows Falls,	"	"	"	"	0.16
Waterquechy,	"	"	"	"	0.40
MASSACHUSETTS.—Canals,—					
Middlesex,	"	Boston,	"	Chelmsford,	27.00
Pawtucket,	"	Lowell,	"	"	1.59
Blackstone,	"	Providence,	"	Worcester,	45.00
Hampshire and Hampden,	"	Connecticut Line,	"	Northampton,	22.00
Montague Falls,	"	"	"	"	3.00
South Hadley Falls,	"	"	"	"	2.00
Railroads,—					
Eastern,	"	Boston,	"	N. Hampshire Line,	38.00
Boston and Lowell,	"	Boston,	"	Lowell,	26.00
Boston and Portland,	"	Wilmington,	"	N. Hampshire Line,	20.00
Lowell and Nashua,	"	Lowell,	"	N. Hampshire Line,	9.00
Charlestown,	"	Charlestown,	"	"	1½
Boston and Worcester,	"	Boston,	"	Worcester,	45.00
Millbury Branch,	"	"	"	Millbury,	3½
Western,	"	Worcester,	"	West Stockbridge,	116.00
Boston and Providence,	"	Boston,	"	Providence,	41.00
Dedham Branch,	"	"	"	Dedham,	2.00
Taunton Branch,	"	Mansfield,	"	Taunton,	11.00
Taunton and New Bedford,	"	Taunton,	"	New Bedford,	20.00
Norwich and Worcester,	"	Worcester,	"	Connecticut Line,	20.00
Quincy,	"	Granite Quarry,	"	Quincy Landing,	3.00
RHODE ISLAND.—Railroad,—					
Providence and Stonington,	"	Providence,	"	Stonington,	47.00
CONNECTICUT.—Canals,—					
Farmington,	"	New-Haven,	"	Massachusetts Line,	56.00
Enfield Falls,	"	"	"	"	5.50
Railroads,—					
Norwich and Worcester,	"	Norwich,	"	Worcester,	58.50
New Haven and Hartford,	"	New-Haven,	"	Hartford,	36.00
Housatonic,	"	Bridgeport,	"	New Milford,	35.00
NEW YORK.—Canals,—					
Erie,	"	Albany,	"	Buffalo,	363.00
Champlain,	"	West Troy,	"	Whitehall,	76.00
Chenango,	"	Utica,	"	Binghamton,	97.00
Black River,	"	Rome,	"	Carthage,	85.00
Oswego,	"	Syracuse,	"	Oswego,	38.00
Cayuga and Seneca,	"	Seneca Lake,	"	Cayuga Lake,	23.00
Crooked Lake,	"	Pennyan,	"	Seneca Lake,	7.75
Chemung,	"	Seneca Lake,	"	Elmira,	23.00
Branch of Chemung,	"	Elmira,	"	Knoxville,	16.00
Delaware and Hudson,	"	Eddyville,	"	Lackawaxen,	83.00
Genesee Valley,	"	Rochester,	"	Olean,	119.63
Dansville Branch,	"	Mount Morris,	"	Dansville,	11.00
Harlem,	"	Hudson River,	"	East River,	3.00
Croton Aqueduct,	"	Croton River,	"	New York,	40.56
Railroads,—					
Long Island,	"	Brooklyn,	"	Hicksville,	27.00
Harlem,	"	New York,	"	Harlem,	8.00
Hudson and Berkshire,	"	Hudson,	"	West Stockbridge,	33.00
Catskill and Canajoharie,	"	Catskill,	"	Canajoharie,	78.00
Rensselaer and Saratoga,	"	Troy,	"	Ballston,	23.50
Mohawk and Hudson,	"	Albany,	"	Schenectady,	17.00
Saratoga and Schenectady,	"	Schenectady,	"	Saratoga,	21.50
Utica and Schenectady,	"	Schenectady,	"	Utica,	78.00
Syracuse and Utica,	"	Utica,	"	Syracuse,	53.00
Syracuse and Auburn,	"	Syracuse,	"	Auburn,	26.00
Auburn and Rochester,	"	Auburn,	"	Rochester,	78.00
Tonawanda,	"	Rochester,	"	Attica,	43.50

Name.				Length in Miles.	
NEW YORK.— <i>Railroads</i> , (continued).—					
Buffalo and Niagara Falls	from	Buffalo,	to	Niagara Falls,	23.00
Lockport and Niagara Falls,		Lockport,		Niagara Falls,	24.00
Buffalo and Black Rock,		Buffalo,		Black Rock,	3.00
Rochester,		Rochester,		Port Genesee,	3.00
Ithaca and Oswego,		Ithaca,		Oswego,	29.00
Bath,		Bath,		Crooked Lake,	5.00
Port Kent and Keesville,		Port Kent,		Keesville,	4.50
NEW JERSEY.— <i>Canals</i> .—					
Delaware and Raritan,		Bordentown,		New Brunswick,	42.00
Morris,		Jersey City,		Easton, Pa.	101.75
Salem,		Salem Creek,		Delaware River,	4.00
<i>Railroads</i> .—					
Camden and Amboy,		Camden,		South Amboy,	61.00
Trenton Branch,				Trenton,	8.00
Jobstown Branch,		Jobstown,		Craft's Creek,	13.00
Paterson and Hudson,		Jersey City,		Paterson,	16.30
Camden and Woodbury,		Camden,		Woodbury,	9.00
New Jersey,		Jersey City,		New Brunswick,	34.00
Trenton and Brunswick,		Trenton,		New Brunswick,	27.00
Morris and Essex,		Newark,		Morristown,	22.00
Elizabethport and Somerville		Elizabethport,		Somerville,	25.00
PENNSYLVANIA.— <i>Canals</i> .—					
Penn. Canals.	Central Division,	Columbia,		Holidaysburg,	172.00
	Western Division,	Johnstown,		Pittsburg,	104.25
	Susquehanna Division,	Duncan's Island,		Northumberland,	39.00
	West Branch Division,	Northumberland,		Farrandsville,	73.00
	North Branch Division,	Northumberland,		Lackawana,	72.50
	Delaware Division,	Bristol,		Easton,	59.75
	Beaver Division,	Beaver,		Shenango River,	30.75
	Schuylkill Navigation,	Philadelphia,		Port Carbon,	108.00
	Union,	Reading,		Middletown,	82.08
	Lehigh,	Easton,		Stoddartsville,	84.43
Lackawaxen,	Delaware River,		Honesdale,	25.00	
Conestoga,	Lancaster,		Safe Harbor,	18.00	
Codorus,	York,		Susquehanna River,	11.00	
Bald Eagle,	West Branch Canal,		Bellefonte,	25.00	
Susquehanna,	Wrightsville,		Havre de Grace,	45.00	
Minor Canals,					24.00
<i>Railroads</i> .—					
Columbia and Philadelphia,		Philadelphia,		Columbia,	81.60
Portage,		Holidaysburg,		Johnstown,	36.69
Philadelphia City, &c.					6.00
Valley,		Morristown,		Columbia Railroad,	20.25
West Chester,		Columbia Railroad,		West Chester,	10.00
Harrisburg and Lancaster,		Harrisburg,		Lancaster,	35.50
Cumberland Valley,		Harrisburg,		Chambersburg,	50.00
Franklin,		Chambersburg,		Williamsport,	30.00
York and Wrightsville		York,		Wrightsville,	13.00
Strasburg,		Cumberl. Val. R. R.		Strasburg,	7.00
Philadelphia and Reading,		Philadelphia,		Pottsville,	95.00
Little Schuylkill,		Port Clinton,		Tamaqua,	23.00
Danville and Pottsville,		Pottsville,		Sunbury,	44.50
Little Schuyl. and Susquehanna,		Tamaqua,		Williamsport,	106.00
Beaver Meadow Branch,		Lindner's Gap,		Beaver Mead. R. R.	12.00
Williamsport and Elmira,		Williamsport,		Elmira,	73.50
Blossburg and Corning,		Blossburg,		Corning,	40.00
Mount Carbon,		Mount Carbon,		Norwegian Creek	7.24
Schuylkill Valley,		Port Carbon,		Tuscarora,	10.00
Branches of Schuyl. Valley,					15.00
Schuylkill,		Schuylkill,		Valley,	13.00
Mill Creek,		Port Carbon,		Coal Mine,	9.00
Mine Hill and Schuyl. Haven,		Sch. Haven,		Mine Hill Gap,	20.00
Mauch Chunk,		Mauch Chunk,		Coal Mine,	9.00
Branches of Mauch Chunk,					16.00
Room Run,		Mauch Chunk,		Coal Mine,	5.26
Beaver Meadow,		Parryville,		Coal Mine,	20.00
Hazleton and Lehigh,		Hazleton Mine,		Beaver Mead. R.R.	8.00
Nesquehoning,		Nesquehoning Mine,		Lehigh River,	5.00
Lehigh and Susquehanna,		White Haven,		Wilkesbarre,	19.53
Carbondale and Honesdale,		Carbondale,		Honesdale,	17.67
Lykens Valley,		Broad Mountain,		Millersburg,	16.50
Pine Grove,		Pine Grove,		Coal Mine,	4.00
Philadelphia and Trenton,		Philadelphia,		Morrisville,	26.25
Philadelphia, Ger., and Morrist'n,		Philadelphia,		Morristown,	17.00
Germantown Branch,					4.00
Philadelphia and Wilmington,		Philadelphia,		Wilmington,	27.00
DELAWARE.— <i>Railroads</i> .—					
New Castle and Frenchtown,		New Castle,		Frenchtown, Md.	16.00
Railroads from New Castle to Wilmington, and from Wilmington to Nanticoke Creek, are proposed.					
<i>Canal</i> .—					
Chesapeake and Delaware,	from	Delaware City,	to	Back Creek,	13.63
MARYLAND.— <i>Railroads</i> .—					
Baltimore and Ohio,		Baltimore,		Harper's Ferry,	60.50
Washington Branch,		Patapsco River,		Washington,	30.35
Baltimore and Port Deposit,		Baltimore,		Havre de Grace,	36.00
Baltimore and Susquehanna,		Baltimore,		York, Pa.	56.00
Reistertown Branch,		6 m. from Baltimore,		Reistertown,	6.00

Name.				Length in Miles.
MARYLAND.—Railroads, (continued).—				
Wilmington and Susquehanna, <i>from</i>	Havre de Grace,	<i>to</i>	Wilmington, Del.	32.00
Annapolis and Elkridge, . . . "	Washington Branch,	"	Annapolis,	19.75
Canal,—				
Chesapeake and Ohio, "	Georgetown, "	"	Hancock,	136.00
VIRGINIA.—Railroads,—				
Richm., Fredericksb., & Potomac, . . . "	Richmond, "	"	Aquia Creek, . . .	75.00
Louisa Branch, "	24 m. from Richm'd, . . . "	"	Gordonsville, . . .	49.00
Richmond and Petersburg, "	Richmond, "	"	Petersburg, . . .	23.00
Petersburg and Roanoke, "	Petersburg, "	"	Weldon,	59.00
Greensville, "	Near Hicksford, "	"	Gaston, N. C. . .	18.00
City Point, "	Petersburg, "	"	City Point, . . .	12.00
Chesterfield, "	Coal Mines, "	"	Richmond, . . .	13.50
Portsmouth and Roanoke, "	Portsmouth, "	"	Weldon, N. C. . .	80.00
Winchester and Potomac, "	Harper's Ferry, "	"	Winchester, . . .	32.00
Canals,—				
Alexandria Canal, "	Georgetown, "	"	Alexandria, . . .	7.25
James River and Kanawha, "	Richmond, "	"	Buchanan, . . .	175.00
Dismal Swamp, "	Deep Creek, "	"	Joyce's Creek, . .	23.00
Branches, . . . . . "	. . . . . "	"	. . . . .	11.00
NORTH CAROLINA.—Railroads,—				
Wilmington and Raleigh, "	Wilmington, "	"	Weldon,	167.00
Raleigh and Gaston, "	Raleigh, "	"	Gaston,	87.00
Canals,—				
Weldon Canal, "	Weldon, "	"	Head Roanoke Falls, . .	12.00
Club Foot and Harlow, "	Club Foot Creek, "	"	Harlow Creek, . .	1.50
SOUTH CAROLINA.—Railroads,—				
South Carolina, "	Charlestown, "	"	Hamburg,	135.75
Columbia Branch, "	Branchville, "	"	Columbia,	68.00
Canals,—				
Santee, "	Cooper River, "	"	Santee River, . . .	22.00
Winyaw, "	Kinloch Creek, "	"	Winyaw Bay, . . .	7.40
Saluda, "	Shoals, "	"	Granby,	6.20
Drehr's, "	Saluda Falls, "	"	Head of Falls, . . .	1.33
Lorick, "	Broad River, "	"	Head of Falls, . . .	1.00
Loekharts, "	Head Falls Br. River, "	"	To Foot,	2.75
Wataree, "	Jones's Mill, "	"	Elliot's,	4.00
Catawaba, "	At various points on the Catawaba, . . . .	"	. . . . .	7.77
GEORGIA.—Railroads,—				
Georgia, <i>from</i>	Augusta,	<i>to</i>	De Kalb County, . . .	165.00
Athens Branch, "	Georgia R. R. . . . "	"	Athens,	33.00
Western and Atlantic, "	De Kalb County, "	"	Tennessee River, . . .	130.00
Central, "	Savannah, "	"	Macon,	193.00
Monroe, "	Macon, "	"	Forsyth,	25.00
Macon and Talbotton, "	Macon, "	"	Talbotton,	70.00
Canals,—				
Savan, Ogeechee, & Alatomaha, "	Savannah, "	"	Alatomaha River, . .	16.00
Brunswick, "	Alatomaha, "	"	Brunswick,	12.00
FLORIDA.—Railroad,—				
Wimico and St. Joseph, "	Lake Wimico, "	"	St. Joseph,	28.00
ALABAMA.—Railroads,—				
Alabama, Florida, and Georgia, "	Pensacola, "	"	Montgomery,	156.46
Montgomery and West Point, "	Montgomery, "	"	West Point,	45.00
Tuscumbia, Courtland, and Decatur, "	Tuscumbia, "	"	Decatur,	46.00
Selma and Cahawba, "	Selma, "	"	Cahawba,	10.00
Wetumpka, "	Wetumpka, . . . . . "	"	. . . . .	10.00
Canals,—				
Muscle Shoals Canal, "	Head of Falls, "	"	Florence,	35.75
Huntsville, "	Triana, "	"	Huntsville,	16.00
MISSISSIPPI.—Railroads,—				
West Feliciana, "	St. Francisville, "	"	Woodville, Mp. . . .	7.75
Vicksburg and Clinton, "	Vicksburg, "	"	Clinton,	51.00
Grand Gulf, "	Grand Gulf, "	"	Port Gibson,	7.25
Jackson and Brandon, "	Jackson, "	"	Brandon,	14.00
LOUISIANA.—Railroads,—				
Pontchartrain, "	New Orleans, "	"	Lake Pontchartrain, . . .	4.50
West Feliciana, "	St. Francisville, "	"	Woodville, Mp. . . .	20.00
Atchafalaya, "	Point Coupee, "	"	Opelousas,	30.00
Alexandria and Cheneyville, "	Alexandria, "	"	Cheneyville,	30.00
New Orleans and Carrollton, "	New Orleans, "	"	Lafayette,	11.25
Orleans Street, "	New Orleans, "	"	Bayou St. John, . . .	1.50
Canals,—				
Orleans Bank, "	New Orleans, "	"	Lake Pontchartrain, . . .	4.25
Canal Carondelet, "	New Orleans, "	"	Bayou St. John, . . .	2.00
Barataria, "	Near New Orleans, "	"	Berwick's Bay, . . .	85.00
Lake Veret, "	Lake Veret, "	"	La Fourche River, . .	8.00
TENNESSEE.—Railroads,—				
La Grange and Memphis, "	La Grange, "	"	Memphis,	50.00
Somerville Branch, "	Moscow, "	"	Somerville,	16.00
Highwassee, "	Knoxville, "	"	West. & Atlan. R. R. . .	98.50
KENTUCKY.—Railroads,—				
Lexington and Ohio, "	Louisville, "	"	Lexington,	92.75
Portage, "	Bowling Green, "	"	Barren River, . . .	1.50
ILLINOIS.—Railroads,—				
Mercedosia and Jacksonville, "	Mercedosia, "	"	Jacksonville,	20.00

<i>Name.</i>				<i>Length in Miles.</i>
ILLINOIS.—Railroads, (continued).—				
Coal Mine Bluffs,	from Illinois,	to Coal Mine,		6.00
Canal,—				
Illinois and Michigan,	Chicago,	Near Peru,		105.90
INDIANA.—Canals,—				
Wabash and Erie,	Lafayette,	Lake Erie,		187.00
Whitewater,	Lawrenceburg,	Brookville,		30.00
Railroad,—				
Madison and Indianapolis,	Madison,	Indianapolis,		95.00
OHIO.—Canals,—				
Ohio and Erie,	Portsmouth,	Cleveland,		307.00
Columbus Branch,	Columbus,	Canal,		10.00
Lancaster Branch,	Lancaster,	Canal,		9.00
Hocking,	Lancaster,	Athens,		50.00
Zanesville Branch,	Zanesville,	Canal,		14.00
Walhonding Branch,	Walhonding River,	Canal,		23.00
Miami,	Cincinnati,	Defiance,		178.00
Warren Branch,	Middletown,	Lebanon,		20.00
Sandy and Beaver,	Bolivar,	Ohio River,		76.00
Mahoning,	Akron,	Beaver River,		77.00
Railroads,—				
Mad River and Sandusky City,	Tiffin,	Sandusky City,		36.00
Ohio,	Manhattan,	Sandusky City,		40.00
MICHIGAN.—Railroads,—				
Central,	Detroit,	Ann Arbor,		44.00
Erie and Kalamazoo,	Toledo,	Adrian,		33.00
Ypsilanti and Tecumseh,	Ypsilanti,	Tecumseh,		25.00
Detroit and Pontiac,	Detroit,	Pontiac,		25.00

**AGGREGATE LENGTHS OF CANALS AND RAILROADS IN THE SEVERAL STATES,
AS STATED BY MR. TANNER.**

<i>States.</i>	<i>Canals.</i>	<i>Railroads.</i>	<i>States.</i>	<i>Canals.</i>	<i>Railroads.</i>
Maine,.....	50.50	10.00	Mississippi.....	...	83.00
N. Hampshire,	11.13	30.47	Louisiana,.....	99.25	97.25
Vermont, .....	...	...	Arkansas, .....	...	...
Massachusetts,	79.50	407.31	Tennessee, .....	...	164.50
Rhode Island,.....	38.00	47.00	Kentucky,.....	2.50	94.25
Connecticut,	61.50	188.46	Ohio,.....	777.00	70.00
New York,.....	931.25	677.11	Michigan,.....	...	131.00
New Jersey,	170.75	215.30	Indiana,.....	217.00	95.00
Pennsylvania,	974.06	953.58	Illinois,	105.00	26.00
Delaware,.....	13.63	19.19	Missouri,.....	...	...
Maryland,.....	136.00	262.00	Florida,.....	..	12.00
Virginia,.....	196.25	361.50	Iowa,.....	...	...
N. Carolina,.....	13.50	250.00	Texas,.....	...	...
S. Carolina,	52.45	201.75	Wisconsin, .....	...	...
Georgia, ...	28.00	616.00	Oregon Territory, ...	...	...
Alabama,	51.75	307.46	District of Columbia,	...	...

Aggregate length of Canals in the United States, as stated by Mr. Tanner, 3,909.02
 Aggregate length of Railroads in the United States, 5,320.13

Remark.—The above table of the Aggregate Lengths of Canals and Railroads in the several States is compiled from "A Description of Canals and Railroads of the United States, by H. S. Tanner; New York, 1840;" but it will be perceived, that there is a difference, in many instances, between the aggregate lengths here stated, and the sum of the lengths of the canals and railroads in the several States, as given in the preceding "Condensed Summary."

A number of the canals and railroads enumerated in the "Condensed Summary" are not yet completed; and some which are not mentioned, are in progress.

DIVISIONS.—The Union consists at present of 23 States, three Territories, and one Federal District. The States and Territories are subdivided into counties and townships; but these are too numerous for us to specify them, nor is it very necessary; for when they are mentioned, it is always with the name of the State or territory attached, so that there can be no difficulty in ascertaining their situation. The original thirteen States which joined in the Declaration of Independence in 1776, are distinguished by asterisks.

Names.	Abbreviations.	Area in Square Miles.	Population in 1840.	Slaves in 1840.	Seats of Government, with their distances from Washington.
Dist. of Columbia,	D. C.	100	43,712	4,694	WASHINGTON.
Maine,.....	Maine.	35,060	501,973	..	Augusta, . . . 595 N.E.
*New Hampshire,...	N. H.	9,490	281,574	1	Concord, . . . 474 N.E.
Vermont,.....	Vt.	10,000	291,948	..	Montpelier, . . 521 N.N.E.
*Massachusetts,.....	Mass.	7,800	737,699	113	Boston, . . . 432 N.E.
*Rhode Island,.....	R. I.	1,225	108,830	5	{ Providence and } 394 & 403 N.E.
					{ Newport, }
*Connecticut,.....	Ct.	4,764	309,978	17	{ Hartford and } 333 & 301 N.E.
					{ Newhaven, }
*New York,.....	N. Y.	48,000	2,428,921	4	Albany, . . . 376 N.N.E.
*New Jersey,.....	N. J.	7,276	373,306	674	Trenton, . . . 166 N.E.
*Pennsylvania,.....	Pa.	46,000	1,724,033	64	Harrisburg, . . 110 N.
*Delaware,.....	Del.	2,100	78,085	2,605	Dover, . . . 114 E. by N.
*Maryland,.....	Md.	13,500	470,019	89,737	Annapolis, . . . 37 E.
*Virginia,.....	Va.	70,000	1,239,797	448,987	Richmond, . . 122 S. by W.
*North Carolina,...	N. C.	50,000	753,119	245,817	Raleigh, . . . 286 S.S.W.
*South Carolina,...	S. C.	33,000	594,398	327,038	Columbia, . . . 500 S.S.W.
*Georgia,.....	Ga.	62,000	691,392	280,944	Millidgeville, . 612 S.S.W.
Alabama,.....	Ala.	50,000	590,756	253,532	Tuscaloosa, . . 858 S.W. by W.
Mississippi,.....	Ms.	46,500	375,651	195,211	Jackson, . . . 1035 S.W. by W.
Louisiana,.....	La.	48,500	352,411	168,152	New Orleans, . 1203 S.W.
Tennessee,.....	Ten.	45,000	829,210	183,659	Nashville, . . 714 W.S.W.
Kentucky,.....	Ken.	40,500	779,828	182,258	Frankfort, . . 551 W. by S.
Ohio,.....	Ohio.	45,000	1,519,467	3	Columbus, . . . 396 W. by N.
Indiana,.....	Ind.	36,000	685,866	3	Indianapolis, . 573 W. by N.
Illinois,.....	Ill.	54,000	476,183	331	Springfield, . 801 W. by N.
Michigan,.....	Mich.	58,000	212,267	..	Detroit, . . . 526 N.W.
Missouri,.....	Mo.	68,000	383,702	58,240	Jefferson city, . 980 W.
Arkansas,.....	Ark.	54,000	97,574	19,935	Little Rock, . . 1068 W.S.W.
Florida Territory,...	Fl.	55,000	54,477	..	Tallahassee, . . 896 S.W. by S.
Wisconsin Ter.....	Wisc. }	270,000	30,945	..	Madison, . . . 872 W.N.W.
Iowa Territory,.....	Iowa. }		43,112	..	Burlington, . . 956 W.N.W.
Texas (1847),.....	Tex.	367,987	143,205	39,060	Austin, . . . 1111 S.W.
			17,212,658	2,527,415	

The States of Maine, New Hampshire, Vermont, Massachusetts, Rhode-Island, and Connecticut, forming the north-eastern part of the territory, bear collectively the name of *New England*; and their inhabitants are distinguished from other Americans by the name of *Yankees*, which is said to be an Indian corruption of *English*. They are also sometimes called the Eastern States. New York, New Jersey, Pennsylvania, Delaware, and Maryland, are called the Middle States; Virginia, the Carolinas, Georgia, and Alabama, are called the Southern States, or the South. Louisiana, Mississippi, Tennessee, Arkansas, Missouri, Kentucky, Illinois, Indiana, Ohio, Wisconsin, and Iowa, are all situate in the great Western or Mississippi valley. Michigan consists of the peninsula between lakes Huron and Michigan, and includes also the whole of the west shore of Lake Michigan and the eastern part of the peninsula between that lake and Lake Superior. Florida forms a long peninsula, projecting southward between the Gulf of Mexico and the Atlantic Ocean; the interior consists of swamps, which render a passage across it not every where nor always practicable. The district of Columbia is a small area, ten miles square, situate on both sides of the river Potomac, which was ceded by the States of Virginia and Maryland to the United States for the site of the federal capital.

§ Cities and Towns, &c.

DISTRICT OF COLUMBIA.—WASHINGTON, the capital of the United States of North America, is finely situate on undulating ground, in the angle formed by the junction of the navigable river Potomac with the Eastern branch, in $38^{\circ} 53' N.$ lat., and $77^{\circ} 1' W.$ long., about 80 miles from Chesapeake Bay. The plan of the city, as originally laid out, forms nearly a parallelogram of about four miles by two and a half, consisting of streets crossing each other at right angles in the direction of the cardinal points, and traversed obliquely by larger avenues, named after the several States of the Union; but only a small portion of the plan has yet been executed, and the city consists of straggling clusters of houses placed at inconvenient distances. Almost the only part that is compactly built is that which extends for about a mile along Pennsylvania avenue, between the President's house and the Capitol, both of which are handsome buildings of white free-stone. The Capitol contains the halls of the Senate and House of Representatives, the Library of Congress, and numerous other apartments, some of which are spacious and tastefully embellished. It is a large building, surmounted in the centre by a massy dome; its eastern front is adorned with a Corinthian colonnade, and surrounded by grounds tastefully planted and laid out. There are various other public buildings, of neat and substantial, but unpretending architecture, as the City Hall, the Halls of Columbian College, the Penitentiary, 21 churches, the General Post Office, the Patent Office, &c. There is one room in the latter which is considered one of the finest in America. About a mile S.E. of the Capitol is the Navy yard, on Eastern Branch, which is of sufficient depth along shore for the largest vessels, and immediately above it is the Naval Hospital. At the junction of the two rivers stands the United States Arsenal. The principal Educational Establishment is Columbian College, founded by the Baptists, with nine instructors, besides four professors connected with the medical department. The city was founded in 1791, and became the seat of government in 1800; in 1840 the population amounted to 23,364. During the Sessions of Congress it is crowded with strangers. Notwithstanding its advantageous situation on a large navigable river, and in the centre of a productive country, Washington has never become the seat of trade; and its growth is to be attributed solely to the expenditure of government and the public functionaries. It has a bridge one mile in length over the Potomac, leading to Alexandria; and two bridges across Eastern Branch. The Baltimore railroad affords an easy communication with the north; the Chesapeake and Ohio canals connect it with the west; and the Potomac to different points, on which regular lines of steam packets run, with the south. Alexandria stands on the Virginian side of the Potomac, about six miles below Washington, and part of it is within the State of Virginia. The city is regularly laid out, with streets crossing each other at right angles, and is prettily situate at the foot of green and gently swelling hills. Alexandria

is a port of entry, and the shipping belonging to it amounted, in 1840, to 14,470 tons. Its trade is extensive, and the population had increased, in 1840, to 8459. *Georgetown* is situate on the west side of Washington, from which it is separated by Rock Creek, and had 7312 inhabitants in 1840.

MAINE.—*Augusta*, the capital, is situate nearly in the centre of the State, on the right bank of the Kennebeck, which has here been dammed across, and gives the command of an almost unlimited moving power for manufacturing establishments. The city contained, in 1840, 5314 inhabitants. It is accessible for vessels of 100 tons; but those of 150 tons can only come up to *Hallowell*, two miles below the city. *Portland-city*, which is the largest and most important town in the State, is finely situate on an elevated peninsula, projecting into Casco Bay. It is well laid out, and neatly built; and the harbour is deep, safe, spacious, easily accessible, and always open. The shipping belonging to the port, in 1840, amounted to 56,135 tons. Population, in 1840, 15,218. The city of *Bangor*, at the head of the navigation of the Penobscot river, 60 miles from the sea, communicates with an extensive interior country by means of the wide-spreading branches of the Penobscot, and possesses in the falls immediately above the town every facility for manufacturing purposes. Population in 1820 only 1221; in 1840, 8627. The other principal towns of the State are *Eastport*, *Lubec*, and *Calais* on Passamaquoddy bay; *Machias*, *Castine*, *Bucksfort*, *Belfast*, *Thomastown*, *Warren*, *Waldboro*, *Bristol*, *Wiscasset*, *Saco*, *Brunswick*, *Bath*, *Gardiner*, *Waterville*, *Norridgewock*.

NEW HAMPSHIRE.—*Concord*, the capital, is a small town on the river Merrimack, which has been rendered navigable by several small canals round its falls. *Portsmouth*, near the mouth of Piscataqua river, which forms one of the finest harbours in the world, is a neatly built town, with 9000 inhabitants, who carry on the coasting trade and fishery with some activity, and prosecute some branches of manufacture. It contains one of the navy yards of the United States. *Dover*, the next largest town, is 10 miles W. of Portsmouth, and contained about 6580 inhabitants in 1840.

VERMONT.—*Montpelier*, the capital, is a small town, in a wild and rugged country, between the eastern and western chains of mountains, but occupies a beautiful situation on the Onion river, which runs to Lake Champlain. The other principal towns are, *Burlington*, a fine town of 5000 inhabitants, on the east side of Lake Champlain; *St. Albans Swanton*, *Verennes*, a new city near Lake Champlain; *Middlebury*, the seat of a college; *Pittsford*, *Rutland*, *Manchester*, *Bennington*, *Newbury*, *Brattleboro*, which contains the Vermont asylum for the insane; *Rockingham*, *Windsor*, *Woodstock*, *Norwich*, the seat of a university, and *Danville*.

MASSACHUSETTS.—*Boston*, the capital, is pleasantly situate on a small hilly peninsula on the west side of Massachusetts Bay, at the mouth of Charles river, with a safe and commodious harbour, possessing sufficient depth for the largest vessels, and perfectly secure. The buildings have also extended into South Boston on the mainland, and to East Boston on a large island in the bay; to the north is *Charlestown*, also on a peninsula, and *Chelsea*; and to the west *Cambridge* and *Roxbury*. These may be all considered as one large town connected partly by bridges, and partly by regular ferry stations, and containing altogether, in 1845, 114,366 inhabitants. As a commercial town, Boston is second only to New York; the shipping belonging to the port at the end of 1840, amounted to 220,243 tons; the value of the imports from foreign countries, to £3,200,000; and of exports, to £2,000,000. Several large steamers sail regularly between this and Great Britain. Boston is also distinguished for its schools and the literary character of many of its citizens. Charlestown contains a United States dockyard, and *Bunker's Hill*, so celebrated for the battle fought there 17th June 1775. The event is commemorated by a granite obelisk, intended to be 220 feet high, but not yet finished, which is erected on the top of the hill. *Cambridge* is the seat of Harvard University, which is about four miles from Boston city; and has a permanent fund of £120,000 in property, and an yearly income of £400, besides fees. About a mile farther is the cemetery of Mount Auburn, in a very beautiful and picturesque situation. *Salem*, 15 miles N.E. of Boston, a considerable town, with 15,000 inhabitants, who have been always distinguished for their commercial enterprise, frugality, and industry. *Newburyport*, a prettily situate and neatly built town at the mouth of the Merrimack, carries on a considerable trade, especially in the cod, mackerel, and whale-fisheries. Population in 1840, 7161. *Lowell*, at the confluence of the Merrimack and Concord rivers, 20 miles N.W. of Boston, with which it is connected by a railroad and a canal, is one of the principal manufacturing towns of the United States. In 1820, its site contained only about 100 inhabitants; in 1840, the population amounted to 20,796; and there were in operation 32 cotton-mills, with 166,044 spindles and 5183 looms, besides woollen and other manufactures. *Nantucket*, a sandy island, on the south coast, contains a population of 9012 inhabitants, who are distinguished for their enterprise in the whale-fishery, and other maritime occupations. Four leagues south-east are the dangerous shoals and breakers called the *Nantucket Shoals*. *Fall River*, at the mouth of Taunton river, 45 miles S. of Boston, contains 6738 inhabitants, who are largely engaged in the cotton manufacture; and farther up the river, at the head of sloop navigation, is *Taunton*, also a manufacturing town, with 7645 inhabitants. *Plymouth*, on the coast, 36 miles S. E. of Boston, a small town with 5281 inhabitants, is memorable as the spot where the exiled Independents of Yorkshire, usually called "the pilgrim fathers," founded the first settlement in New England, 11th December 1620. *Worcester*, on the railroad, 45 miles W. of Boston, a rapidly increasing town, with a population, in 1840, of 7497. *Springfield*, a thriving manufacturing town, on the Connecticut, with about 10,000 inhabitants. The other principal towns are, *Adams*, *Williamston*, *Northampton*, *Deerfield*, and *Greenfield*, all west of the Connecticut; *Providence-town*, at the extremity of Cape Cod; *New Bedford*, the principal seat of the whale-fishery, on the Acushnet, an inlet of Buzzard's Bay; *Barnstable* and *Sandwich*, in Barnstable county, the south-east part of the State; *Edgarton*, the chief town, and *Holme's Hole*, a safe and capacious harbour in the island called *Martha's Vineyard*, off the south coast.

RHODE ISLAND.—*Providence* is advantageously situate at the head of the north-western arm of Narragansett Bay, which forms a harbour sufficiently deep and capacious for the largest merchant vessels, but is sometimes obstructed by ice. It carries on an active trade, and contained, in 1840, 23,171 inhabitants. It possesses also a number of cotton factories, iron works, and other branches of industry, in which business to a considerable extent is carried on. *Newport*, situate on Rhode Island, five miles from the sea, has a capacious harbour, and is generally resorted to as a pleasant summer retreat, and for sea-bathing; but it is otherwise unimportant. Population about 8000. *Bristol*, on Warren River, a creek of Providence Bay, a neat and busy commercial town, is distinguished for the enterprise of its inhabitants, who are actively engaged in foreign commerce, the coasting trade, and the whale and sea-fisheries in the South Seas. Population 3000. The river Pawtucket, above Providence, is the seat of numerous manufacturing establishments; and the whole district usually called *Pawtucket*, contains about 6000 inhabitants.

CONNECTICUT.—*Hartford* stands on the right bank of the Connecticut river, in a fertile district, abounding in neat and thriving villages, which enjoy the advantages of numerous mill seats, and an easy communication with the sea. Population, in 1840, 9468. *Newhaven*, the principal town in the State, beautifully situate on a small bay off Long Island Sound, is a regular and prettily built town, with 12,360

inhabitants, who are extensively engaged in several branches of manufacture and trade. It contains also the buildings of Yale College, one of the oldest, and where the highest scientific education is to be had in the United States. The other principal places are, *Saybrook*, at the mouth of the Connecticut; *New London*, at the mouth of the Thames; *Bridgeport*, to the west of the mouth of the Housatonic river; *Birmingham*, and *Waterbury*, on the Naugatuck, and *Meriden* on the Quinpiak, which are seats of extensive manufactures, chiefly of iron, brass, tin, and copper.

NEW YORK.—The city of *New York* is the largest, most wealthy and flourishing in America. It occupies the southern part of Manhattan, a narrow island, 14 miles long, formed by the Hudson and the East river, and extends three miles along the bank of the former, and four along the bank of the latter river. Below the city, Long Island, Staten Island, and the mainland of New Jersey, form a land-locked bay or harbour, of easy access, sheltered from storms, deep enough for the largest ships, and sufficiently large to contain all the navies in the world. No city possesses greater advantages for foreign commerce and inland trade; two long lines of canals have increased its natural advantages, and, connecting it with the remotest west, have rendered it the great mart of a vast region, now occupied by industrious millions, while its facilities of communication with all parts of the world have made it the great thoroughfare of the continent. Its progress in population, trade, and wealth, has probably never been paralleled. In 1650, it contained only about 800 inhabitants; in 1700, 6000; in 1756, 10,381; in 1790, 33,131; in 1800, 60,489; in 1810, 96,373; in 1820, 123,706; in 1830, 202,589; in 1840, 312,710. The greater part of the city consists of streets running in straight lines, but not always parallel or crossing each other at right angles. They are well paved and well lighted, and most of the buildings are of brick, marble, or granite, although there are still many of wood. *Broadway*, the principal street, is a long and spacious avenue, three miles in length and 80 feet wide, bordered by commodious and elegant houses, and containing long rows of rich and showy shops. Here is a continual stream of carriages, waggons, drays, omnibuses, and all other sorts of vehicles destined for business or pleasure, and crowds of pedestrians sauntering or hurrying along. The southern point of the island, on both sides of Broadway, is the principal seat of business, and the banks of both rivers are lined with forests of masts, bearing the flags of all countries. *Wall* street, occupied by bankers and brokers, is the centre of money transactions. Till 1842 the inhabitants were imperfectly supplied with water by wells, cisterns, and some small aqueducts; but measures were taken for bringing into the city, by the Croton aqueduct, 41 miles in length, such a quantity of water as affords a daily supply of thirty millions of gallons. This great work cost £2,000,000 sterling. Among the public buildings may be mentioned, the City Hall, a handsome edifice, in the Park, near the southern part of the city; the Hall of the University, in Washington square; the New York Hospital; the Custom-house; the Merchants' Exchange, in Wall Street; the halls of Justice, or collect prison, a massive building in the Egyptian style; Astor house, in Broadway, a hotel, built of granite, containing 390 rooms, and furnishing 600 beds; the almshouses at Bellevue, on East river; and 220 churches. The churches are more distinguished for their accommodation and comfort than for size and splendour; nor are the other public buildings either so numerous or so striking as in the cities of Europe. Of places of public amusement there is a great number, including five theatres, which are well filled every night. The civil or municipal government is vested in a mayor, aldermen, and common council, elected annually by universal suffrage and the ballot; whose jurisdiction extends over the city and the surrounding waters. The offices are not largely paid, and the occupants of civic power are not accompanied by much patronage, and are seldom considered as thereby invested with much additional dignity. But it is chiefly as the great mart of foreign commerce and inland trade that New York is distinguished. In 1786 the whole shipping of the port did not exceed 120 in number, with a tonnage of 18,000. In 1836, it consisted of 2293 vessels, of which there were 599 ships, 197 barques, 1073 brigs and galleys, 412 schooners, and 4 sloops; with a burden of 350,000 tons. In 1791, the whole amount of the exports was £501,093; in 1816, only twenty-five years later, the mere duties on merchandise imported at New York alone, amounted to £3,200,000; and in 1840, the value of the exports amounted to £6,146,304; and of imports to £15,053,603. The inland and coasting trade is immense; but of its actual extent and value there is no account. Near the northern end of Manhattan is the village of *Harlem*, connected with the city by a railroad six miles in length; and on Long Island, opposite New York, stands the city of *Brooklyn*, with a population of 36,233 in 1840; to the north-east of Brooklyn is *Williamsburg*, another suburb of the great emporium; and on Wallabout bay, lying between these, is the United States' navy yard. Several steam-boats at the ferries keep up a constant communication with New York, and a railroad runs eastward through Long Island to Hicksville, a distance of 27 miles. Several of the large Atlantic steamers sail regularly between it and Great Britain.

Albany, the capital of the State, is pleasantly situated on an eminence on the western bank of the Hudson, 145 miles above New York. Its wealth and trade have been greatly increased by the opening of the Erie and Champlain canals, which terminate in a large basin within the city; and its situation renders it the great thoroughfare for travellers on the northern and western routes. The Hudson and Mohawk railroad, which is a prolongation of the Saratoga and Utica railroads, also terminates here. The number of travellers who pass through the city yearly exceeds 600,000; the total number of boats which arrived at and departed from Albany, in 1836, was 10,226; to which must be added about 400 coasting vessels. Several iron works, breweries, tanneries, and other manufactories, add to the wealth of this thriving city. Population in 1840, 32,721. *Hudson*, on the left bank of the river, at the head of ship navigation, 117 miles from the sea, is a pretty situate, and well-built town, with an extensive and increasing trade, and a population, in 1840, of 5672. To the north-west is the village of *New Lebanon*, a favourite watering-place, in a delightful situation, with warm springs; and in the vicinity of the springs is a society of Shakers, consisting of about 600 members. *Catskill*, below Hudson, on the opposite bank, is a large village with, in 1840, 5339 inhabitants. At *Sing-Sing*, on the left bank of the Hudson, 35 miles above New York, is the state prison for criminals, and at *West Point*, 12 miles further north, but on the right bank, is the academy where the officers of the United States' army are educated. *Newburgh* and *Poughkeepsie*, further up the river, the former on the right, and the latter on the left bank, are two of the most flourishing towns in America. They contain each a population of 10,000, which is rapidly increasing. *Troy*, on the east bank of the Hudson, six miles above Albany, a well-built town, with regular and spacious streets, on the alluvial flat of the river, has become the seat of an active trade; and there are numerous manufactories and cotton-mills in the neighbourhood. Population in 1840, 19,334, besides 5000 in the village of West Troy, on the opposite bank of the river. Troy is situate at the head of the tide and sloop navigation, and is connected by canals with the lakes to the north and west. *Lansingburg*, above Troy, with 3330 inhabitants, is a busy place, largely engaged in the river trade, and contains a great number of manufactories and workshops. N.W. of Troy, 20 and 24 miles, are *Balden Spa* and *Saratoga Springs*, two celebrated watering-places, much frequented in summer; and to the north of these are two places celebrated in the wars of last century. *Ticonderoga*, at the outlet of Lake George, and *Crown Point* on Lake Champlain. *Plattsburg*, a flourishing village, also on Lake Champlain, acquired some notoriety during last war for the capture of a British flotilla, and the defeat of a land force. These places are situate in Essex and Clinton counties, which contain 222 saw-mills, and 51 iron-works, besides tanneries, pot and pearl asheries, cotton-factories, &c. *Opensburg*, on the St. Lawrence, at the mouth of the Oswegatchie, and opposite

to Prescott in Upper Canada, is advantageously situate at the lowest point to which lake steamers navigate the river. It is a port of entry, and has a population of 2500. *Sackett's Harbour*, at the east end of Lake Ontario, is spacious and safe, with depth of water sufficient for the largest ships close along the shore. It was the naval station during the last war, and has barracks for the accommodation of 2000 troops. It is a port of entry, has considerable trade, and about 1800 inhabitants. Ten miles from the lake on Black River, which falls into Sackett's Harbour, is *Watertown*, a large and rapidly increasing village, with 3500 inhabitants, most advantageously situate for mills, the river having a fall of 90 feet within the space of a mile. *Schenectady* is a flourishing town on the banks of the Mohawk, intersected by the Erie canal, and by railroads from Albany to Saratoga and Utica, and increased its population from 4268, in 1830, to 6784 in 1840. *Little Falls*, on the Mohawk river, is most advantageously situate for the employment of machinery, and has a population of 3881. *Utica*, on the southern branch of the Mohawk, at the junction of the Chenango and Erie canals, is a rapidly increasing town. It stands on a beautiful inclined plane, and contains well-built streets, with a population of, in 1840, 12,782. About 15 miles N.E. of Utica are *Trenton Falls*, on the West Canada creek, an affluent of the Mohawk, which are much visited on account of their picturesque scenery. *Rome*, at the junction of the Erie canal with the Mohawk, had, in 1840, 5680 inhabitants, and has the prospect of becoming a place of considerable importance. *Oswego*, one of the most flourishing towns in the State, is situate on Lake Ontario, at the head of the Onondaga or Oswego river. It is the chief commercial port on the lake, and its trade has been vastly increased since the opening of the Welland canal, which has made it the centre of much of the trade of the upper lakes. Population in 1840, 4051. *Salina*, a town in Onondaga county, 30 miles S. by W. of Oswego, contains a great salt spring, from which large quantities of salt are made. It has 11,013 inhabitants, with large salt-works, from which, in 1840, 1,107,825 bushels were manufactured. *Syracuse*, a mile distant, is increasing so rapidly that the two villages will probably soon become united into one large town. *Seneca Falls*, at the outlet of Lake Seneca, is one of the most prosperous towns in the State, having increased its population in the ten years preceding 1835 from 265 to 421. It owes its rapid growth to the water-power furnished by the river, which is estimated to be sufficient for 200,000 spindles. *Watrloo*, several miles further up the river, participates in the advantages, and rivals the growth of Seneca Falls. It contains a population of 2000, with a great number of flour, saw, and other mills, and is noted for its wooden-ware. *Geneva*, an old town in this region of new cities, is the seat of a college, and contains 3000 inhabitants. It occupies a beautiful site, at the north end of Seneca lake. *Canandaigua*, at the north end of a fine lake of the same name, rivals Geneva in the beauty of its situation, and the elegance of its houses, is a more busy town, and contains 2000 inhabitants. *Penn-yu*, on the Crooked lake canal, a thriving manufacturing village, with 1500 inhabitants, derives its singular name from the circumstance of its having been founded by about an equal number of Pennsylvanians and Yankees. *Rochester*, on the Genesee and the Erie Canal, a most rapidly increasing town, whose population increased from 1500, in 1820, to 20,191 in 1840. It is well built, with spacious streets, and carries on a great trade in wheat and flour, as well by the canals as by the lakes, the steamers of which ascend the river to its port of *Carthage*. Its carpet manufacture has attained high excellence. Other branches of the woollen trade, and various other manufactures, are also very flourishing. *Lockport*, a flourishing town, situate at the place where the Erie canal rises from the Rochester level to that of Lake Erie, by means of five double locks, was founded in 1821, and in 1840 contained 9125 inhabitants. *Buffalo*, the great emporium of the lakes, is situate at the point where the Erie canal joins the lake of that name, at the head of the Niagara river; and increased its population from 2095, in 1820, to 18,213 in 1840. It is a well built town, with spacious streets, and neat and commodious buildings. A railroad extends from Buffalo to the Falls of Niagara; and another connects it with the flourishing village of *Black Rocks*, at the entrance of the canal. These celebrated falls are now crossed by a bridge. *Schlosser*, a small place with a harbour, formed at the mouth of Gill Creek on the Niagara river, just above the falls, opposite the Canadian village of Chippeway. *Auburn*, a village at the outlet of Lake Owaseo, contains the western penitentiary of the State, which has 600 cells, and spacious work-shops. The establishment is managed on the principle of solitary confinement by night; but the prisoners work and eat together during the day. One of the most remarkable objects in the State of New York is the *Erie canal*, which extends from the Hudson at Albany, to Lake Erie at Buffalo, a distance of 363 miles, which was commenced in 1817, and completed in 1825, at the expense of about £2,200,000 sterling. The trade on the canal is already very great, and is every year increasing, so much so, that by a recent act of the legislature, its breadth is to be increased from 40 feet to 70, and its depth from 4 to 6, with a double set of locks, at an expense of £2,000,000 more. The State of New York also includes Long-Island, which extends 120 miles eastward from the city, being 20 miles broad, and is traversed by a range of low hills.

NEW JERSEY.—*Trenton*, the capital, at the lower falls of the Delaware, is a small town, with only 3925 inhabitants. *Princeton*, 10 miles N.E. of Trenton, is noted in the history of the revolutionary war, and contains the halls of New Jersey College, and a Presbyterian theological seminary. *Newark*, the largest and most important town in the State, stands on the river Passaic, 3 miles from Newark Bay, and 10 miles west of New York. It contains numerous manufactures of various kinds, and 20,000 inhabitants. *Paterson*, one of the most important towns in the United States, stands on the Passaic at its lower falls, and contains numerous manufactures, for which it possesses water power equal to 1751 horses. Its population increased from 7731 in 1830, to above 12,000 in 1835. Paterson communicates with the Hudson by a railroad. *Jersey City*, formerly *Paulus Hook*, stands on Bergen Peninsula, opposite to New York, on the right bank of the Hudson, where the river is a mile wide, and at the eastern termination of the Morris Canal, and the Paterson and New Jersey railroads. It is a rapidly improving town. A few miles up the river is the village of *Hoboken*, a famous summer resort, and the battle field of the New York duellists. The other principal places are: *Elizabethtown*, four miles from Newark Bay; *Bridgetown*, a little further south; *Perth Amboy* and *South Amboy*, at the mouth of the Raritan river, to the south-west of Staten Island; *New Brunswick* at the head of sloop navigation on the Raritan, and at the termination of the Delaware and Raritan Canal, with 6900 inhabitants. *Morristown*, where Washington fixed his head-quarters in the winter of 1779; *Bordentown*, on the Delaware, below Trenton; *Burlington*, further down the river, and *Cumden*, a busy thriving place opposite to Philadelphia.

PENNSYLVANIA.—*Philadelphia* is situate on a plain, between the rivers Delaware and Schuylkill, extending about five miles N.-S. along the former, and two miles E.-W., being built on a very regular plan, with spacious streets crossing each other at right angles, which are lined with good houses, mostly built of red brick, and planted with rows of trees. Though 100 miles from the sea, it has not only all the advantages of a maritime station, but also those of a double port; for the Schuylkill is accessible to vessels of 300 tons, while the Delaware which is here one mile wide, admits the largest merchant vessels to the doors of the warehouses, and is at once spacious and secure. The population, in 1830, amounted to 167,836; in the year 1840, 220,423. The manufactures are various and extensive, and the foreign commerce is considerable, though inferior to that of New York; but the inland and coasting trade is extensive, and is rapidly increasing. The city is noted for the number and excellence of its benevolent and literary institutions; and among its public buildings may be mentioned, the Old State House, in which the declaration of independence was signed in 1776; the United States Bank; the Pennsylvania Bank; the United States Mint; and Girard College, a magnificent building erecting according

to the bequest of M. Girard, a banker in the city, who left his fortune of £1,500,000 for the purpose of educating orphan children. Philadelphia was founded by William Penn in 1682, who gave it its present Quaker-like name, which means brotherly love.

Harrisburg, the capital of the State, is situate on the left bank of the Susquehanna; but is a small town, with less than 6000 inhabitants. **Pittsburg** is situate on a low alluvial point at the junction of the Alleghany and Monongahela rivers, extending about a mile and a half along the former, and one mile along the latter. Perhaps the site is unrivalled in the world; commanding a river navigation of about 20,000 miles, which gives it access to the most extensive fertile region on the globe, as well as to the sea: surrounded by inexhaustible beds of the most useful minerals; connected by canals and railroads with the principal commercial marts of the Atlantic coast, and by others with the great lakes. The population in 1800 was only about 1600; in 1840, including that of its suburbs of Alleghany, Lawrenceville, and Birmingham, 33,725. This astonishing increase is owing to the rapid growth of the manufacturing establishments. In 1833 there were 90 steam-engines at work, and in 1836, there were 125; 10 rolling-mills, 19 iron-foundries, machine-shops, and steam-engine factories, 10 glass-works, 8 cotton-factories, besides numerous other establishments, as breweries, tanneries, brass-foundries, smitheries, saw-mills, oil-mills, grist-mills. The value of their annual produce is estimated at £2,500,000; about 250,000 chaldrons of coal are annually raised in the neighbourhood; the trade is extensive; and the amount of the mercantile transactions, in 1837, was estimated at £3,775,000. The city is regularly built, but the clouds of smoke, in which it is constantly enveloped, give it rather a dingy appearance. The suburb of Lawrenceville contains the Alleghany arsenal of the United States. The other principal places are: **Reading**, on the Schuylkill, with 8000 inhabitants; **Chester**, on the Delaware below Philadelphia, 1000; **West-Chester**, in the fine valley of the Brandywine, 1500; **Lancaster**, 64 miles west of Philadelphia, 7704 inhabitants, chiefly Germans, or of German descent; **Eaton**, on the Delaware, 5000; **Hamburg**, on the Schuylkill 3500; **Carlisle**, on the Conedogwint, 3707; **Pottsville**, on the Schuylkill, whose population had increased from 300 in 1825 to 3300 in 1835; **Wilkesbarre**, on the Susquehanna, in the vale of **Wyoming**, 3900; **Erie**, a small but thriving town, with one of the best harbours on the lake of the same name, at the termination of a railway which connects it with the Alleghany.

DELAWARE.—**Dover**, the capital, is a small town with 1500 inhabitants, near the centre of the State, 7 miles west from the shore of the Delaware. **Wilmington**, the principal and only considerable town, stands on a narrow neck of land between the Christina Creek and the Brandywine, just above their confluence, a few miles from the Delaware. It is a busy and prosperous place, with 8367 inhabitants in the year 1840. There are about 100 mills and factories in the immediate neighbourhood, which produce flour, paper, gunpowder, ironware, cotton, and woollen goods; and the city is itself the seat of some branches of mechanical industry. **Newcastle**, an old town, with a harbour on the Delaware, at the termination of a railway which leads to Elk river, on the Chesapeake. **Port Penn**, opposite Reedy Island on the Delaware, is a convenient shelter for vessels when the river is obstructed with ice.

MARYLAND.—**Annapolis**, the capital, is a small scattered town, of about 2500 inhabitants, on the west bank of the Severn river, near the Chesapeake. **Baltimore**, a large and flourishing commercial city, on the Patapsco river, an arm of the Chesapeake, 37 miles N.E. of Washington, and 200 miles from the sea by the ship channel. It has two capacious harbours, where 2000 vessels may lie in safety, and an inner basin, where vessels drawing 10 or 12 feet may approach the quays. Baltimore is a well built town, with broad, straight, and regular streets, and in 1840 contained 102,313 inhabitants. It formerly possessed a great foreign trade, which has now been considerably diverted to New York and Philadelphia; but the coasting trade has been much extended. The shipping belonging to the port in 1840, amounted to 76,022 tons, one half of which was engaged in the coasting trade. The manufacturing industry of Baltimore has, of late years, received a great impetus, and has now become important for its extent; within 10 miles of the city there are above 70 manufacturing establishments with a capital of £550,000; and the Baltimore shipbuilders are famed for the construction of fast-sailing vessels, which are in demand in foreign ports. The city is well supplied with water, and, though formerly considered unhealthy, and repeatedly suffering from the ravages of the yellow fever, is now one of the healthiest cities in the Union, owing, undoubtedly, to the draining of the marshes and the paving of the streets. **Frederick**, a flourishing town, with 7000 or 8000 inhabitants, on a branch of the Baltimore and Ohio railway. **Cumberland**, in the western part of the State on the Potomac, at the eastern terminus of the great national road, has lately become important from its valuable coal seams, which are rendered accessible by the Chesapeake and Ohio Canal.

VIRGINIA.—**Richmond**, the capital, is pleasantly situate on the left bank of the James river, below its lower falls, about 100 miles south of Washington. Including Mancheston on the opposite side of the river, and connected with it by a bridge; the population exceeds 20,000. The Capitol, or State-house, though occupying a commanding situation, is only a large brick building, on the model of the Maison Carrée of Nismes. Richmond is 150 miles from the mouth of the river, which has 14 feet of water up to Warwick, 5 miles below the city, and is navigable for boats 220 miles above the falls. This advantageous position enables it to carry on an extensive trade; and the annual value of its exports is estimated at £600,000. **Petersburg**, now a thriving manufacturing town, on the Appomattox river, with 11,136 inhabitants in 1840, is connected by a railroad with Richmond on the north, and the Roanoke on the south. **City-point**, a mere hamlet at the confluence of the Appomattox with the James, has a deep and spacious harbour, where wharfs have been built for loading such large vessels as cannot go up to Richmond or Petersburg. **Norfolk**, on Elizabeth river, 8 miles from Hampton roads, near the entrance of the Chesapeake, is a considerable town with about 12,000 inhabitants, including those of the suburbs of Portsmouth and Gosport, which contain one of the principal naval stations and depots of the United States. **Hampton roads**, below Norfolk, and within the mouth of James river, are protected by **Fort Monroe**, on Old Point, a formidable fortress, designed to mount 412 cannon; and on the opposite point, named the Rip-raps, and 1900 yards distant, is **Fort Calhoun**, which is capable of mounting 232 guns. To the south of Norfolk is the **Dismal Swamp**, containing about 150,000 acres, in some places covered with a dense growth of large trees, cedars, cypresses, or pines, and in others bearing only tall reeds and grasses. The soil is in some places a soft tremling bog, in others firm, but covered knee deep with water; and in the centre is Lake Drummond, about 20 miles in circumference, with a depth of 12 or 15 feet. It is now crossed by a canal which carries its timber to Norfolk. **York town**, at the mouth of York river, near the Chesapeake, is celebrated in the history of the revolutionary war, for the surrender of Lord Cornwallis and his army, which took place here in October 1781. **Williamsburg**, once the capital of the province, is now a decayed town, about midway between the York and the James. **Mount Vernon**, on a high bank of the Potomac, 7 miles below Alexandria, once the seat of Washington, now contains his tomb, which is merely a brick vault in the garden. **Fredericksburg**, a thriving town, at the head of the navigation on the Rappahannock. **Monticello**, 61 miles W.N.W. of Richmond, formerly the seat of President Jefferson, contains his tomb, which is marked with a simple granite obelisk. **Charlottesville**, the seat of the University of Virginia, near Monticello, is a small town with less than 1000 inhabitants, of whom one-half are blacks. **Lynchburg**, one of the greatest tobacco markets in the country, is situate on the James, and in 1840 contained 6395 inhabitants. In **Rockbridge county**

is the celebrated natural bridge, which is, according to Jefferson, "the most sublime of nature's works." It is an arch reaching across a deep and narrow chasm, and 215 feet above the water which flows through the bottom of the ravine. In the same neighbourhood are several remarkable limestone caves. *Winchester*, a thriving town west of the mountains, with 4000 inhabitants, is a great thoroughfare for southern and western travel; and its millseats are another source of its prosperity, though but partially turned to account. It is connected with the Potomac by a railway. *Newtown*, *Woodstock*, *Newmarket*, and *Harrisonburg*, are busy and thriving villages, with 1000 inhabitants each, and *Staunton*, a regular built town, with 2000 inhabitants, all in the valley of the Shenandoah, south of Winchester. In the upper valley of the James are *Lexington* and *Fincastle*, each containing about 900 inhabitants; and the former having Washington college, and a State arsenal. *Wheeling*, on the Ohio, one of the most flourishing manufacturing towns in the country, owes its prosperity to the inexhaustible beds of coal which surround it, and to the easy means of transporting its manufactures through the vast agricultural regions of the west and south-west. In 1820, its population was only 1567; in 1830, 5221; and in 1840, 7885. Its manufactures consist of ironwork, glass, paper, leadworks, boots and shoes, furniture, saddlery, copper and tinware, tanneries, &c. producing annually goods of the value of £500,000. It also carries on a considerable transport trade, being situate at the head of the steam navigation on the Ohio, during the season of low water, and at the western terminus of the Cumberland road. *Wellsburg*, farther up the river, owes its prosperity to the same cause. Population about 2000. *Parkersburg*, a thriving village at the confluence of the Little Kanawha with the Ohio. *Charleston*, at the head of navigation on the Kanawha, contains about 1000 inhabitants. A few miles above it commence the great saltworks, which extend about 12 miles along the valley of the Kanawha, and produce annually about 3,000,000 bushels of salt.

NORTH CAROLINA.—*Raleigh*, the capital, is a thriving town with 2,244 inhabitants in 1840, connected by a railway with Richmond in Virginia. *Wilmington*, 20 miles from the sea, on Cape-fear river, is a thriving commercial town, with 4000 inhabitants. *Fayetteville*, at the head of boat navigation, on the same river, is a busy and flourishing town, with 3000 inhabitants. *Newbern*, on the right bank of the Neuse, 80 miles from Pamlico Sound, is a well built town, with considerable trade, and 3690 inhabitants in 1840. *Beaufort*, on Newport river, a few miles from the sea, has the best harbour in the State, a little to the west of Cape Lookout, from which dangerous shoals stretch 10 miles into the sea.

SOUTH CAROLINA.—*Charleston* stands on a point of land at the confluence of the Ashley and Cooper rivers, six miles from the sea. The site is almost a dead level, only eight or ten feet above high water-mark, and is subject to inundation when the sea is driven in by violent winds. It is well built on a regular plan, and contained in 1840, 29,261 inhabitants. The harbour is of difficult access and the bar forms an almost continuous line of breakers extending about 10 miles opposite the city. *Moutineville*, on Sullivan's Island, is a pleasant little town, much resorted to in summer and autumn, when the refreshing sea breezes restore health and vigour to the system exhausted by the unwholesome air of the swamps. *Georgetown*, on Winyaw Bay, a place of some trade, with 2000 inhabitants, is situate among swamps, and very unhealthy. *Columbia*, the capital of the State, situate on the Congaree river, is only a small town, with 4000 inhabitants. *Hamburg*, on the Savannah, opposite to Augusta, in Georgia, is the most flourishing town in the State. The first building was erected in 1821, and, at the end of six years, the population exceeded 1000, and is now more than twice that number. It stands at the head of steam navigation on the river, and is connected with Charleston by a railroad. *Spartanburg*, a pleasant village, with 1000 inhabitants, 185 miles N.W. by N. of Charleston. To the north of it is *Couperus*, the scene of an engagement in the revolutionary war.

GEORGIA.—*Millidgeville*, the capital, is a small town on the Oconee river, with 2000 inhabitants. *Savannah*, a flourishing commercial town, containing, in 1840, 11,214 inhabitants, is situate on a high bank of Savannah river, 15 miles from the sea, but is accessible to large vessels. *Augusta* stands on the Savannah, at the head of steam-boat navigation, 240 miles above the city of Savannah. It is a well built and thriving commercial town, with about 8000 inhabitants. *Macon*, on the Ockmulgee, contained, in 1823, only a single cabin; in 1840 the population had increased to 5045. It is the depot of a populous and fertile country, and has an extensive trade. *Columbus*, on the Chattahoochee river, 430 miles from the Gulf of Mexico, by the windings of the stream, was first laid out in 1828, and in 1844 had already acquired a population of 7000 souls. Steamers run regularly to New Orleans, and carry thither the produce of this inland region.

ALABAMA.—*Tuscaloosa*, the capital, is a small but thriving town, with 2000 inhabitants, near the centre of the state. *Mobile*, at the mouth of the great river of Alabama, has become the seat of an extensive trade; about 250,000 bales of cotton are annually shipped from its wharfs; and the population, which in 1830 was only 3194, had increased, in 1840, to 12,672. *St. Stephen's* on the Tombigbee, is a flourishing town with 12,000 inhabitants. *Montgomery*, near the head of the Alabama, is a prosperous town with 2000 inhabitants. *Wetumpka*, five miles above the junction of the Coosa and the Tallapoosa, stands at the head of steam navigation on the former; it was laid out in 1832, and in 1837 contained 3000 inhabitants, having become the depot of a highly fertile region. *Florence*, at the head of steam navigation on the river Tennessee, below the muscule shoals, is a thriving town, with 2000 inhabitants. *Waterloo*, lower down, is at the head of navigation during the season of low water, when steam-boats cannot pass Colbert's shoals. Above the Muscule shoals, and about 10 miles N. of the river, with which it is connected by a canal, is *Huntsville*, the principal town of Upper or Northern Alabama. It is surrounded by a fertile, populous, and well-cultivated country, and has about 2500 inhabitants.

MISSISSIPPI.—*Jackson*, the capital, is a small town newly laid out, with a state-house, penitentiary, and other buildings, and about 1200 inhabitants. *Natchez*, on the left bank of the Mississippi, consists of two parts; one called the landing, or Natchez under the hill, which is built on a dead level on the bank of the river, from 100 to 200 yards in breadth; the upper town stands on a lofty bluff or bank, which rises abruptly to the height of 300 feet, and is the residence of the better class of citizens. Through 380 miles from the mouth of the river it carries on a considerable foreign trade, and large ships come up to the town; its river and inland trade, however, is much more extensive. The population in 1830 was 2790, but in 1837 exceeded 6000. Six miles from Natchez is the village of *Washington*, with 800 inhabitants, and the seat of Jefferson college. At *Seltzertown*, near Washington, there is a remarkable group of mounds, from which numerous relics have been obtained. There is also a similar group near Natchez. *Woodville*, a pretty and growing town, with a port named Fort Adams, on the river, 50 miles below Natchez; and 35 miles above Natchez is *Rodney* or *Petit Gulf*; and still higher, *Grand Gulf*; the latter a finely situate town, with 1500 inhabitants. A railroad connects it with *Port Gibson*, on the Bayou Pierre, which is accessible for steam-boats, except during low stages of the river. It is situate in a charming country, and is one of the prettiest and most flourishing towns in the state, with 1200 inhabitants. *Vicksburg* stands on the southern declivity of the Walnut hills, 500 miles from the mouth of the Mississippi. The citizens nevertheless carry on direct trade with the northern and foreign ports. Population in 1840 above 3653. *Warrenton*, a thriving village below

Vicksburg. *Columbus*, on the Tombigbee, at the head of the ordinary steam navigation, contains about 3000 inhabitants.

LOUISIANA.—*New Orleans*, the capital, is situate on the left bank of the Mississippi, 100 miles from its mouth, but only 15 from the bay called Lake Borgne, and four from Lake Pontchartrain. Steam-boats and coasting vessels come up to the landing-place on the latter, where an artificial harbour has been formed, and from which a railroad and two canals extend to the city. In front of the city, on the river, the largest merchant-ships lie close along the shore, and discharge and receive their cargoes by means of a moveable platform adapted for the purpose. The river is about 160 feet deep, and about half a mile wide. The city is built on a flat of soft and marshy ground, declining from the river to the swamps in the rear, which, spreading all round, emit noxious exhalations during the hot season, and render the place a dangerous residence to strangers. The older part of the city consists of narrow streets, with old-fashioned French and Spanish houses, most of them only one storey high, and built of wood; but in the newer quarters tall brick-houses, in the American style, are most common. The population in 1836 amounted to about 70,000, who display the greatest variety in manners, language, and complexion. French and Spanish creoles are mingled with immigrants from all parts of the Union, from various countries of Europe, and with coloured persons of every shade. But the police is efficient and vigorous, and disturbances or acts of violence are rare. *New Orleans* is the emporium of the whole valley of the Mississippi. Thousands of huge arks and rafts float down the mighty stream for thousands of miles, loaded with the produce of the country. From 1500 to 2000 flat boats, from 50 to 60 steamers, and a forest of masts of sea-going vessels, are often to be seen at once along the levee, which protects the city from the river. The whole value of commercial transactions during the year probably exceeds £16,000,000 sterling. The banks of the river for 50 miles below the city are covered with sugar plantations; and a little lower down, at Plaquemine bend, the approach is defended by *Forts Jackson* and *St. Philip*. Below these there are no settlements, except at the little hamlet of *Balize*, 4 miles within the bar, occupied by a few pilots. The State contains no other important towns; but it possesses a great number of thriving villages, among which we may mention *Alexandria*, on the Red river, and *Natchitoches*, on the same river, 90 miles above it, and 190 from the Mississippi, with a population of 2500.

TENNESSEE.—*Nashville*, the capital, and chief commercial town, is situate on the left bank of the Cumberland river, in a highly picturesque and fertile country. It is a neatly-built town, with, in 1844, 11,000 inhabitants, and carries on an extensive trade. *Knorrville*, in East Tennessee, has a population of 2000, and is a place of considerable trade. *Memphis*, on the Mississippi, is a rapidly-increasing town; and three miles below it the city of *Girán* has been founded. There are no other towns in the State, but a number of thriving villages.

KENTUCKY.—*Frankfort*, the capital, a small town with 2000 inhabitants, stands on the right bank of the Kentucky river, 70 miles from its mouth. *Louisville* is situate above the falls of the Ohio, and is a rapidly-increasing and well-built town, with 28,643 inhabitants in 1843, having various and extensive manufactures, and a great trade. The falls are only perceptible at low-water; at other seasons they present no serious obstruction to navigation; but at all times the Louisville and Portland canal enables large steam-boats to reach Louisville. Below the falls are the villages of *Shippingport* and *Portland*, with good harbours. *Lexington*, one of the oldest towns, and formerly the capital of the State, is spacious and well-built, with 6997 inhabitants in 1840. It is 70 miles E. of Louisville, with which it is connected by a winding railroad. Kentucky contains, besides, a number of thriving villages.

OHIO.—*Columbus*, the capital, is a regularly laid out and well-built town, on the Scioto, near the centre of the State, with 6048 inhabitants in 1840. *Cincinnati*, a large city on the right bank of the Ohio, has grown with the most astonishing rapidity to its present extent and importance. It was founded in 1789; in 1800, its population amounted to 750; in 1820, to 9642; in 1830, to 24,831; and in 1840, to 46,334. In that year it contained 43 churches. It is built on a very regular plan, with many elegant houses and public buildings; and has become the seat of large and numerous manufacturing establishments, and of an extensive trade, particularly in the article pork, so many as 160,000 swine being slaughtered there in a year, besides what is brought from other places. *Cleveland*, on Lake Erie, at the mouth of the Cuyahoga creek, in a plain, 80 feet above the level of the lake, with spacious and regular streets, neat buildings, and 6071 inhabitants in 1840. The town is rapidly increasing, and promises to rival or even to take the precedence of Buffalo, owing to the lake in this quarter becoming sooner clear of ice. Cleveland has a safe and commodious harbour; and on the opposite side of the creek is *Ohio city*, with 2000 inhabitants. *Fairport*, *Astabula*, *Conneaut*, and *Huron*, towns on the lake, with harbours. *Sandusky city*, on the southern shore of Sandusky bay, has a population of 2000, and is connected by a railroad with Monroe Ville and Tiffin. *Toledo*, a growing place, whose situation, at the mouth of the Maumee, will enable it to command the trade of north-western Ohio, north-eastern Indiana, and south-eastern Michigan. Its trade is already important. The village of *Manhattan*, three miles below, has been fixed on as the terminus of the Wabash and Miami canals. *Perrysburg*, higher up the river, is also advantageously situate, and may become a formidable rival to Toledo. *Hamilton*, on the Miami, is a busy prosperous town with 2500 inhabitants; and higher up is *Dayton*, with 3800. *Springfield*, on the Mad river, a rapidly-increasing, manufacturing, and commercial town, which doubled its population between 1830 and 1840; in which latter year it contained 2349 inhabitants.

INDIANA contains no large towns, but only a number of thriving villages; though one of them, *Madison*, on the Ohio, is advancing so rapidly as to have trebled its population in six years, the number of inhabitants in 1840 being 8874. *Indianapolis*, the capital, stands on a beautiful plain, at the confluence of Fall creek with White river; and contained 2692 inhabitants in 1840. *New Albany*, below the falls of the Ohio, shares in the prosperity of Louisville, and has already above 4226 inhabitants in 1840, with a considerable trade, several iron and brass foundries, &c.

ILLINOIS.—The towns of Illinois are small, but some of them are rapidly growing in importance, and there is, besides, a great number of thriving villages. *Springfield*, the capital, is situate near the centre of the State, and has a population of 2900. Along the Ohio are *Shawneetown*, *Galesburg*, *Sapoleon*, *Trinity*, *Cairo*; along the Mississippi, downwards, *Galena*, *Saranna*, *Fort Armstrong*, *Stercoron*, *Rockport*, *New Boston*, *Oquawka*, *Appawose*, *Commerce*, *Montebello*, *Warren*, *Quincy*, *Gilead*, *Milan*, *Grafton*, *Alton*, *Kankakee*; on the Illinois, *Juliet*, *Dresden*, *Marselles*, *Ottawa*, *Hennepin*, *Peoria*, *Pekin*, *Beardstown*, *Erie*, *Rushville*, *Meredonia*, *Naples*, *Carrollton*, *Augusta*; on the Wabash, *Darwin*, *Palatine*, *Mount Carmel*; *Oregon city* on Rock river. *Chicago*, on lake Michigan, is the largest town in the State. In 1832 it contained only 250 inhabitants; in 1837, its population amounted to 8000. It stands at the point of the lake which makes the nearest approach to the Mississippi, and must necessarily become a great commercial station, as the adjoining country becomes more populous.

MICHIGAN.—*Detroit*, the capital, is neatly and regularly built on the west bank of Detroit river, and is becoming a place of great importance. In 1830 the population was 2220; in 1837, 8323. *Monroe*, 3 miles from the head of lake Erie, on the river Raisin, which is accessible for the largest lake

vessels up to the city. Monroe has become a great thoroughfare for western travellers, and its business and population are rapidly increasing. *Frenchtown*, opposite Monroe; *Mount Clemens*, on Clinton river, 6 miles from Lake St. Clair; *Neuport* and *Palmer*, on the river St. Clair; *Huron*, at the foot of Lake Huron; in the interior of the eastern section, *Pontiac*, *Ypsilanti*, and *Ann-Arbour*, the seat of the University of Michigan, on the Huron river; *Tecumseh*, on the Raisin; and *Adrian*, on Beaver Creek, a branch of that river. On the western side of the peninsula, *New Buffalo*, at the mouth of Galien river; *St. Joseph's*, *Niles*, *Constantine*; *Naples*, at the mouth of the Kalamazoo; *Kalamazoo* and *Marshall* above; *Grandhaven*, at the mouth of Grand river; and *Jacksonburg*, near the head of that river, in the centre of the State. *Mackinaw*, on an island at the entrance of the lake Michigan.

MISSOURI.—*Jefferson city*, the capital, is situate on the south bank of the Missouri. *St. Louis* stands near the centre of the great Mississippi valley, on the right bank of the river, 18 miles below the mouth of the Missouri, 175 above the mouth of the Ohio, 1350 from the Gulf of Mexico, 860 below the falls of St. Anthony, 850 by the post routes from Washington, and 1200 from Santa Fé in Mexico, by way of Independence. It was founded by the French in 1764; in 1820 its population was 4598; in 1830, 6694; and in 1844 considerably exceeded 30,000. *St. Louis* is the commercial emporium of the Missouri and the Upper Mississippi; the principal depot of the American Fur Company; and the centre of the overland trade with Mexico. Two miles below the city is a United States' arsenal, and 5 miles below are *Jefferson Barracks*, an important military station, and the head-quarters of the western division of the army. *St. Charles*, a flourishing town on the Missouri, with 2000 inhabitants. The other towns of the State are mostly mere villages; but some of them are increasing rapidly.

ARKANSAS.—*Arkopolis* or *Little Rock*, the capital, stands on a high bluff on the right bank of the river, and contains about 1500 inhabitants. There are no considerable towns or even villages, the population being mostly distributed in scattered settlements.

FLORIDA.—*Tallahassee*, the capital, stands on a high and healthy ridge of land, about 180 feet above the level of the sea, in a fertile district, and has become a place of considerable business. A railroad, 21 miles in length, connects it with the harbour of *St. Mark's* on Appalachee Bay. *St. Augustine*, the oldest town in the United States, which was founded by the Spaniards in 1564, is rather a decayed place, with only 459 inhabitants, on the Atlantic coast.

WISCONSIN.—The government of this territory was organized in 1836, and in 1840 it contained a population of 30,945. *Madison*, the capital, on the Four Lakes, is a small town recently founded; *Wisconsin city*, on Rock river; *Milwaukee*, on Lake Michigan, founded in 1835, and containing, in 1845, 7500 inhabitants. It has the best harbour on the coast, and promises on that account to become an important place. *Navarino*, at the mouth of Fox river on Green Bay.

IOWA is separated from Wisconsin by the Mississippi, along the western bank of which it extends, from the borders of the state of Missouri to the British frontier. It was erected into a separate territory in 1840. In 1844 it contained a population of 22,859, and in 1846, 78,819. *Burlington*, on the Mississippi, is the seat of government. The other principal towns are *Madison*, *Bloomington*, *Dubuque*; but none of the towns have yet risen to any degree of importance.

THE INDIAN, OR WESTERN TERRITORY is an extensive region set aside as a permanent home for the Indian nations, whose removal beyond the limits of the States has been going on for several years. The tract thus appropriated extends from the western boundary of Arkansas and Missouri, to that of the United States, lying between the Red River on the south, and the *Punca* and the *Platte* on the north, and contains an area roughly estimated at 225,000 square miles. The eastern section is the only portion that is yet occupied by the emigrant and indigenous tribes, whom the Federal Government are endeavouring to fix in permanent abodes, and to educate in the arts of peace, so that, whenever their advance in civilization shall warrant the measure, and they desire it, they may be admitted as a State to become a member of the Union. In 1841 the tribes numbered 342,058.

WESTERN DISTRICT.—The vast region extending from the *Platte* to the 49° N. lat. and from the Missouri and the White-earl rivers to the Rocky mountains, has been but partially explored, and has received no official name. It contains an area of 300,000 square miles, and is occupied by wild tribes of independent Indians, who have had little communication with the whites; though traders have established several posts and trading stations in the country. The natives have no domestic animals but the horse and the dog, but they roam in pursuit of the bison, which is the principal source of subsistence to many of the tribes. The women, however, act as the agriculturists, and generally raise a little maize. The skins and furs of the wild animals also furnish them with an important means of traffic with the whites who scour the country.

THE OREGON TERRITORY extends westward from the Rocky mountains to the Pacific Ocean. By convention with Spain in 1817, its southern boundary was fixed at the 42° parallel of N. latitude. Till 1847, the whole territory as far south as the Spanish frontier was claimed by both Great Britain and the United States, and the subjects of both proceeded to colonize it; but in that year negotiations were concluded between the two powers, by which the mutual boundary was fixed as the 49° of latitude. The whole territory extends from 42° to 54° 40' N. latitude, and contains about 480,000 square miles, of which about 7-12ths belong to the United States. Nearly the whole region is drained by the river *Columbia* with its tributaries, which takes its name from the ship of Captain Gray of Boston, who was the first to ascend the stream, in 1792. The name *Oregon*, as applied to both the river and the country, has arisen solely from the statement of the traveller *Carver*, that, when on the Upper Mississippi, he heard of a great river in the interior, flowing westwards, and which he called the *Oregon* or *River of the West*. The only establishments of the whites, are the *Hudson's Bay Company's* posts and settlements, and the missionary stations of the American Board of Foreign Missions; the country generally being still in possession of the native tribes. Population not known.

Fort Vancouver, the Company's principal depot for *Columbia* district, stands on the northern bank of the river, 100 miles from its mouth, in the midst of beautiful and fertile prairies. The fort is merely a stockade inclosing the Company's buildings, and outside are about 50 huts occupied by the mechanics and labourers, with their Indian wives and slaves. There are several other forts of the same kind scattered over the country. A Company's ship arrives every year in the *Columbia* in spring, with goods for the Indian trade, and returns in the autumn, after having made a trip to the *Sandwich Islands* with furs. A company's ship, brig, schooner, sloop, and steam-boat remain on the coast to traffic and bring in the furs; and every spring numerous parties leave *Fort Vancouver* in boats loaded with goods for the Indian trade, at the different inland posts. The whole number of persons connected with the establishment is about 800, who are mostly Canadians, half-breeds, and Indians. The mission board has two stations, and employs nine missionaries and teachers.

For the preceding account of the United States, we are chiefly indebted to the very excellent "*Illustrated Atlas, Geographical, Statistical, and Historical, of the United States, and the adjacent countries, by J. G. Bradford*, Boston, 1839." The Statistical Tables are taken from the *American Almanac*,

III. TEXAS.

TEXAS or **TEJAS** (See note to page 551) formed till 1845 one of the states of the Mexican confederation, in conjunction with that of Coahuila. This union was very unpopular with the Texans, and led to disagreements with the Central Government. In 1835, General Santa-Anna having violently dissolved the confederation, and established a central government in its stead, the Texans declared themselves independent, and successfully resisted all efforts to subdue them. Since the defeat of Santa-Anna at *San Jacinto* in April 1836, the republic enjoyed uninterrupted repose, and its independence was acknowledged by Great Britain, the United States, France, Holland, and Belgium. In 1845 it adopted the constitution, and was admitted as one of the members of the United States. It is now the southernmost state of the Union, and is situate between $26^{\circ} 42'$ N. lat. and $94^{\circ} 11'$ W. long. including an area of 324,018 square miles, with an estimated population of 200,000. Its coast extension, along the north-western shore of the Gulf of Mexico, is about 400 miles. The state is divided into 36 counties. The surface along the shore, and to the distance of from 50 to 100 miles inland, is low and level, with occasional swamps and marshes, but is generally composed of arable prairie traversed by lines of wooded river bottoms. Above this low maritime plain the country becomes moderately undulating, no where attaining any considerable elevation, but is agreeably diversified by gracefully rounded swells, gentle slopes, and broad plains. This region is mostly prairie, or unwooded land, the trees being chiefly confined to the river valleys, and to scattered clumps, which rise, like islands, in the midst of a wide grassy expanse. These fine natural pastures were formerly filled with large herds of buffaloes or bisons, and droves of mustangs or wild horses, which have now been almost entirely exterminated, or driven farther north. On the west several outlying ridges of the Sierra Madre, or great Mexican cordillera extend, around the heads of the rivers Nueces and Guadalupe, across the Colorado to the Brazos, where they subside into the elevated plains of Northern Texas. In the north-west are spread out vast unwooded plains, over which the wild native Indians still roam. The coast contains no good ship harbours, and but few inlets even for the smaller class of vessels. The spacious but shallow bays which receive most of the rivers, and the mouths of those rivers which enter the Gulf immediately, are barred by shifting sand-banks, the channels through which are often intricate, and rarely have more than 8 or 10, never more than 12 or 13, feet of water. From April till August, however, ships may ride at anchor securely on the coast in 6 or 8 fathoms; but during the rest of the year the heavy swell renders that impossible.

The climate may be described generally as mild, agreeable, and healthy. The maritime plain is, however, comparatively unhealthy, though fanned by the sea breeze during half the year. Scarcely any rain falls between March and November, and the vegetation often suffers from droughts. In November north winds from the mountains set in, and heavy rains begin to fall. These winds blow, with little deviation or intermission, during the months of December and January, when the mountains are covered with snow, and the cold is sometimes severe; but snow seldom lies long in the lower districts. In the early spring the rains are very copious. The live-oak is found of large size in the maritime region, chiefly between Galveston and Matagorda Bays; the white, red, post, and Spanish oaks, the cottonwood, ash, elm, and sycamore or buttonwood, the black walnut, hickory, pecan, locust, muskit, bow wood, wild cherry, mulberry, persimmon, &c., are among the native productions of the forests. Between the Colorado and the Brazos are extensive cane brakes; almost every variety of grape is found growing spontaneously in many places; and it is believed that the most valuable grapes of Europe may be advantageously introduced. The soil and climate are favourable to the growth of the sugar-cane, indigo, vine, tobacco, rice, maize, sweet potatoes, and, in some parts to the cultivation of wheat, rye, oats. The prairies afford excellent pasture all the year round.

In 1821, Stephen Austin, an American citizen, obtained a grant of land in Texas from the Mexican Government. This was followed by other grants to him and to other persons, and, since the declaration of independence, a constant tide of immigration has set into Texas, and the Anglo-American population of the State is estimated already to exceed 200,000. About 70,000 or 80,000 Mexicans are also resident within the limits, but chiefly along the banks of the Rio Grande. The Indians are estimated at 30,000; while the total number of negroes is stated by some to be only 6000, but by others, more than 10,000. A sound administration of justice has been established; schools and colleges have been founded; public buildings have been erected; the different parts of the country have been connected by roads, and by the improvement of the natural means of communication along the rivers.

Austin, the seat of government, is situate on the left bank of the Colorado River, 200 miles from the sea. *Houston* is a town of great and growing importance, situate at the head of Buffalo-bayou, a sort of creek or river, which runs into the north-western corner of Galveston Bay. It has sprung up with astonishing rapidity, and is already the centre of an extensive trade. The other principal towns are, *Nacogdoches*, *St. Augustine*, *Brazoria*, *Columbia*, *Marion*, *Santa Fé*, *Washington*, *Bastrop*, and *Sant' Antonio de Bexar*. Galveston Island stretches along the Gulf of Mexico for about 30 miles, opposite to the entrance to Galveston Bay. On the eastern part of it is the *City of Galveston*, which, though not central to the sea-board of Texas, may be made, by means of railroads of moderate extent, the depot for the produce of the most fertile sections of the country, and will probably become in consequence its principal commercial station.

(*Article Texas* in *Bradford's Atlas; History of the Revolution in Texas; with the latest geographical, topographical, and statistical Accounts of the Country*, by the Rev. C. Newell. New York, 1838, *Texas; its Rise, Progress, and Prospects*; by William Kennedy, 1841.)

IV. MEXICO or MEJICO.

(See Note to page 531.)

This republic or confederation occupies the narrow tract of country between the Gulf of Mexico and the Pacific Ocean, from the 15° to the 33° N. lat., being about 1100 miles in length, with a breadth varying from about 140 miles at the south to 750 at the north, and including an area of about 1,230,000 square miles. The surface is extremely varied; the country is traversed through its centre by the great cordillera or central mountain chain of North America, which not only forms a complete watershed between the Atlantic and the Pacific Oceans, but also divides into two branches enclosing between them an elevated table-land, which rises abruptly from both coasts, and occasions a great diversity of climate, within a narrow space; so that, while the low country on the coasts is hot and unhealthy, the table-land generally enjoys a mild and equable temperature, rising, however, in some places to an arctic rigour. The most remarkable portion of this plateau is the Vale of Mexico, which is of an oval form, 55 miles long and 37 broad, surrounded by ridges of porphyritic and basaltic rocks, and containing a series of five lakes, which were formerly of considerable extent, but are now diminished by means of a great drain which carries their waters to the river Panuco. The water of

the lake of Tezcuco, the lowest of the five, is salt, but that of the other four is fresh. Mexico is very rich in the precious metals; and Humboldt states that at the period of his visit there were 3000 mines of gold and silver in the country, but the ignorance and misrule which prevail have much diminished their value as a source of wealth.

The temperature and climate are extremely various. The country is divided into three regions named respectively the *tierras calientes*, or hot regions; the *tierras templadas*, or temperate regions; and the *tierras frias*, or cold regions. The first include the low grounds on the east and west coasts, under the elevation of 2000 feet; the mean temperature is about 77° Fahrenheit; the country is especially suited for the growth and cultivation of sugar, indigo, cotton and bananas, which all flourish luxuriantly; but is almost inaccessible by sea for one half of the year, owing to the prevalence of boisterous gales and north winds; and during the other half is extremely unhealthy, from the oppressive heat and the great quantity of rain that falls. The coast then becomes the seat of pestilential fevers; and a European arriving for the first time at Vera-Cruz, or any other part of the coast within the tropic, in August, September, or October, has little chance of escaping the yellow fever. But, at the height of 2000 or 2500 feet above the level of the sea, that scourge is quite unknown. The temperate regions, which are of comparatively small extent, occupy the slopes of the mountains from about 2500 to 5000 feet of elevation. The mean heat of the year is from 68° to 70°, and the extremes of heat and cold are alike unknown. The Mexican oak and most of the fruits and cerealia of Europe flourish in this genial climate; fogs, however, are frequent, occasioning great humidity; but producing great beauty and strength of vegetation. The cold regions include the table-lands and the mountains elevated 5000 feet and upwards above the level of the sea. The mean temperature of the table-land generally may be about 62°; but in the city of Mexico it sometimes, though rarely, falls below the freezing point. In the cold season the mean heat of the day varies from 55° to 70°; while in summer it seldom rises in the shade above 75°. Above 8000 feet, the climate is severe and disagreeable; and, under the parallel of Mexico, the snow line varies from 12,000 to 15,000 feet above the level of the sea. The climate of the table-land is on the whole favourable to human life, and the prevalent diseases are believed to be more owing to the bad habits of the people than to the qualities of the soil and climate.

The classes of the population are singularly varied, and are characterized by distinctions more striking than those in any other country. Four distinct and rival classes may be enumerated: 1. The Chapetons or pure Spaniards, few in number, and now considered a degraded class; 2. The Creoles, or natives of European descent, forming the wealthiest and most powerful part of the population; 3. The Indians, or native Mexicans, forming the great mass of the labouring population; 4. The mixed classes, comprising mestizoes, mulattoes, zambos, &c. But, so far as political privileges are concerned, all distinction of colour has been abolished, and persons of all complexions are admitted to the enjoyment of equal civil rights. The actual amount of the population is unknown; but it has been variously estimated between 5,000,000 and 8,000,000.

The government is based on a constitution dated 4th October 1824, and modelled on that of the United States. Before the late war with the United States, the country was divided into nineteen States, besides the federal district, containing the capital and three territories. These are given below, as the definite arrangement between the two powers are not yet known. Each of these divisions managed its own internal affairs; while the general interests of the confederation were entrusted to a Congress, consisting of a house of representatives, a senate, and a president. The government is extremely unsettled; insurrections are continually taking place; the laws are powerless, and general tranquillity is unknown. The Roman Catholic is the only publicly recognised religion, though others are tolerated; but religion has little influence over the white population, and the hold of the church over the Indians is fast diminishing; as they are all more or less inclined to return to their ancient idolatry. The necessity of education is recognised by the constitution, which requires the priests to teach all persons to read and write; but in practice it is little attended to; and the progress of science, literature, and the arts, has been completely checked by the unsettled state of the country since the revolution which separated Mexico from the dominion of Spain.

With respect to productive industry, every branch of it is in the lowest state. Agriculture is neglected, and even the lands which were cultivated by the Spaniards are now lying fallow. Artificial irrigation, which is necessary to fertilize the lands, is almost abandoned; and the agricultural implements are of the rudest kind. All this is owing in some measure to the very excellence of the soil and climate, which produce the necessities of life with so little labour that the mass of the people, without motive for exertion, are habitually indolent and unenterprising. The mines of gold and silver have always been considered the main sources of wealth. Before the revolution about 21,000,000 dollars in silver, and about 2,000,000 in gold, were annually produced from somewhat more than 3000 mines; but, notwithstanding the introduction of European capital and skill into some of these mines, the general production has diminished considerably, owing principally to the total want of security for working the mines or conveying the produce; but also in some degree to the want of honest and efficient labourers. But the mineral wealth of the country is inexhaustible; and there is only required a vigorous and honest Government to make the production greater than ever. The foreign trade is quite insignificant, and manufactures are scarcely known. Soap is the chief manufacture, and the country possesses great advantages for its production. Tallow is plentiful and cheap; and the carbonate of soda abounds in the table-land of Anahuac and in many other places. There are large established manufactories of this article in Mexico, Puebla, and Guadalajara, and elsewhere.

The states and territories which composed the confederation were: *Las Chiapas, Chihuahua, Coahuila, Durango, Guanajuato, Mexico, Mechoacan, New-Leon, Oaxaca, Puebla, Queretaro, San Luis Potosi, Sonora and Sinaloa, Tabasco, Tamaulipas or Nue Santander, Vera-Cruz, Xalisco, Yucatan, Zacatecas*; the Federal district; and the territories of *New Mexico, Colima, and Tlascala*.

Mexico or Mejico (anciently *Tenochtitlan*), the capital, is situate on a group of islands, formerly surrounded by the lake of Tezcuco, which, however, has been so much diminished by draining, that its margin is now 2½ miles from the city, the intervening space remaining a swampy flat, and crossed by elevated causeways. Mexico stands about 7426 feet above the level of the sea, in N. lat. 19° 25', and W. long. 101° 25'. It is said by Humboldt to be undoubtedly one of the finest cities ever built by Europeans in either hemisphere; being inferior only to St. Petersburg, Berlin, London, and Philadelphia, in respect of the regularity and breadth of its streets, and the extent of its public places, of which, the Plaza Mayor, or great square, is one of the finest to be seen in any city. It contains on one side the cathedral, a large and imposing pile, of mixed Gothic and Italian style, built on the site of the great temple of the god Mexitli, and containing several rich ornaments and curious remains of antiquity. The population amounts to 137,000, of whom one-half are creoles, and only about 6000 Europeans. The two sea-ports of Mexico are Vera-Cruz and Acapulco, the former on the east coast, the latter on the west. *Vera-Cruz* (founded by Cortes, who named it *Villa Rica de la Vera-Cruz*, rich city of the true cross), is situate on the shore of the Gulf of Mexico, in N. lat. 19° 11'. It is a well-built and handsome town, but extremely unhealthy. Opposite the town, at the distance of half-a-mile, on an island, is the strong castle of San Juan d'Ulloa, commanding the harbour, which is a mere anchorage, and exceedingly insecure. *Acapulco* is a small town, on a very fine bay of the Pacific S. S. W. of Mexico. It was formerly the seat of the trade between Mexico and the Philippine islands; but, in the present state of affairs, is comparatively unimportant. *Xalapa or Jalapa*, a large town of 12,000 inhabitants

stands on a little platform above Vera-Cruz, about 4335 feet above the level of the sea. It was formerly a place of great trade, but is now merely a resting-station between Mexico and the coast. *Puebla de los Angeles* (Angels' town), is a large manufacturing and well-built town, with 34,000 inhabitants, 70 miles S.E. of Mexico. The other principal towns are: *Queretaro*, *San Luis Potosi*, *Guadalajara*, *Zacatecas*, *Durango*, *Monterrey*, *Guanajuato*, *Valladolid*, and *Tampico*, to the north and west of Mexico; *Athlzo*, *Guachuclingo*, *Ametepo*, *Tepeaca*, *Tehuacan*, *Hapa*, *Zacatlan*, *Oaxaca*, *Tehuantepec*, and *Ciudad Real*, to the south-east; *St. Blas*, a small sea-port town, on the Pacific, 400 miles W.N.W. of Mexico. At *Chohula*, to the north of Puebla, is a great pyramid, which rises by several stages 177 feet, from a base of 1423 on each side. A smaller but more elegant pyramid stands in the northern part of the state of Vera-Cruz. It is formed of large blocks of porphyry, highly polished, and rises by six stages 65 feet high, from a square base of 82 on the side. The mountains of Tezcucoc, east of the lake of Mexico, are nearly covered with the remains of ancient buildings and cities. Near *San Domingo de Palenque*, a village in Las Chiapas, are the imposing remains of an ancient city named *Culhuacan*, which, after being buried for ages in a thick forest, were first rediscovered in 1787. The ruins present the most curious and most remarkable monuments of the new world, consisting of temples, fortifications, tombs, pyramids, bridges, aqueducts, houses, vases, idols, medals, musical instruments, colossal statues, and well-executed figures in low relief, adorned with characters which appear to be real hieroglyphics. Every thing announces that the city was formerly the residence of a people far advanced in architectural skill, in sculpture and painting, a people whose tall and elegant figures, fine proportions and figures, bear no affinity to anything Asiatic, African, or Malay. The ruins extend for more than twenty miles along the summit of a ridge, which separates the country of the Mayas from the state of Chiapas, and must anciently have included a city and its suburbs.—(See *Jour. R. Geog. Soc. Lond.*)

V. CALIFORNIA.

California was formerly subject to Spain, and afterwards to Mexico; but in 1848 the northern part of it, called Alta California, was annexed, by treaty with Mexico, to the territories of the United States of North America. The country is naturally divided into two parts, the Old or Lower, and the New or Upper. Old California comprehends the long peninsula, between the gulf and the Pacific Ocean, and extends about 700 miles in length, with a breadth varying from 30 to 100, comprising an area of about 38,000 square miles, with a scanty population of 14,000 or 15,000. A chain of rocky mountains, not exceeding 5000 feet in height, runs through it from south to north; and the surface of the country consists of groups of bare rocks, broken by ravines and hills, interspersed with barren sandy tracts, forming altogether one of the most barren and unattractive regions within the temperate zone. It is said, however, to be rich in metals. The climate is excessively dry and hot, and violent hurricanes are frequent; timber is very scarce; and the greater part of the country is incapable of producing a single blade of corn. Some sheltered valleys only produce maize, and a variety of fruits, as dates, figs, &c. which are preserved and exported; wine is also made, and a kind of spirit is distilled from the must. Cattle are somewhat numerous; wolves, foxes, deer, goats, snakes, lizards, and scorpions are among the wild animals. The pearl fishery in the gulf has been famed from its first discovery; at present it produces annually pearls to the value of from 500 to 1000 dollars. Pearls, tortoise-shell, hides, dried beef, dried fruits, cheese, and soap constitute all the exports, which are mostly sent to Mazatlan and San Blas in small coasting vessels. The people are a feeble and indolent set of Indians, whom the Jesuits have partially converted to Christianity; but they are little advanced beyond the rudest stage of savage life, and depend for their subsistence on hunting and fishing, with the spontaneous produce of the soil.

Upper or New California extends from the Pacific Ocean to the Rocky mountains; but the only tract inhabited by European settlers is the narrow strip of land along the coast of the Pacific, which is bounded inward by the maritime range of hills, at the distance of about 40 miles from the sea. The surface of this region is very diversified, and consists of hills and plains of considerable extent; along the coast there are several good harbours, of which *San Francisco*, in lat. 38°, is one of the largest and best on the west coast of America. The rainy season is in winter, from November till February. During the rest of the year there is no rain, but a few showers fall in some places. In summer the heat is very great. The country offers nevertheless a striking contrast to the peninsula. There is a profusion of forest trees on the western side of the mountains along the coast; and many fine fruits are easily cultivated, though few are indigenous. Among these is a species of vine, which produces grapes of considerable size, and so plentiful, that considerable quantities of brandy are distilled from them. Among the wild animals are reckoned the American lion and tiger, buffaloes, stags, rees, elks, bears, wolves, jackals, wild cattle, foxes, polecats, otters, beavers, hares, rabbits, &c. Birds of various kinds are exceedingly abundant. But the great and most important article of produce is black cattle, the multiplication of which has been really prodigious. In 70 years the number had increased from 23 to 210,000 branded cattle, and probably 100,000 unbranded; and it is found necessary to slaughter 60,000 annually to keep down the stock. Sheep have increased with nearly the same rapidity, but are at present of little importance to the trade of the country. Between the maritime chain and the Rocky Mountains is a dry and sandy plain or desert, 700 miles in length, by 100 in breadth at its south end, and 200 at the north, which is traversed by the rivers Colorado and Gila, and forms the eastern limit of the inhabited, and indeed only habitable part of the country. The natives were a poor, filthy, pusillanimous set of Indians in the most primitive state of barbarism, except those who have been converted nominally to Christianity, and who have been taught a few of the simpler arts and practices of civilized life. These resided in missions, where the men are employed in agriculture, or in the warehouses or workshops of the mission, while the women are occupied in spinning, grinding corn, and other domestic duties. They were in fact slaves to the monks who possessed the missions; and the greatest part of the land, and especially that to the south of Monterey, was in the hands of the missionaries. Since the annexation to the United States, a most extraordinarily productive gold region has been discovered in the northern part of Upper California, commencing near the mouth of the Sacramento river in 39° N. lat. about 100 miles N.E. of the Bay of San Francisco, and extending up the main valley northwards, and into several side valleys eastwards. Almost the whole population has taken to the "diggings," and the news of the discovery are attracting crowds of immigrants from both America and Europe.

VI. YUCATAN.

This State forms a large peninsula, situated between the Gulf of Mexico and the Bay of Honduras, between 17° and 22° N. lat., and 86° $30'$ and 91° $20'$ W. long.; is nearly 400 miles in length from north-east to south-west, by about 200 in breadth, and contains an area of about 76,000 square miles. The central part of the peninsula is occupied by a ridge of high ground, which becomes gradually lower as it advances to the north; at the southern extremity its elevation is about 3000 feet, but near Cape Catoche, it sinks to a few hundred. On the west side the ridge is skirted by an extensive plain, which, towards the north, is about 100 miles wide, and becomes narrower towards the south. Its surface is, however, so sandy and arid, that from the Bay of Campeche to Cape Catoche, there is not a single spring of fresh water along the coast. To the south of Cape Catoche on the eastern side of the peninsula, and also on the west coast, to the south of the Rio Francisco, near Campeche, as far as the mouth of the river Usamasinta, the country is undulating, and even hilly. The soil, except on the very shores, is less sandy, and the country is chiefly covered with lofty forest trees. The climate is hot but healthy. In some parts of the territory, maize, frijoles, rice, cotton, pepper, tobacco, and sugar, are raised; but the aridity of the soil is a great drawback to agriculture; the rainy season is very uncertain, so much so, that in some bad years the inhabitants are obliged to have recourse for subsistence to the roots which the woods supply. Bees' wax is collected in considerable quantity in the eastern districts. There are no mines; and the extensive trade which Yucatan once carried on with the Havana, was stopped by the revolutionary war, and has not since been renewed. Yucatan formed, till recently, one of the members of the Mexican confederation; but the people have now separated from the union and declared themselves independent, on the same grounds as the Texans, and have established a constitution on the most liberal political, religious, and commercial principles. The population was estimated in 1837 at 570,000. They are chiefly whites, but there are also many Indians of the Maypa nation, who had attained a considerable degree of civilization before the arrival of the Spaniards, and some of them have maintained a sort of independence.

Merida, the capital, a very fine city, with a splendid cathedral, is situated on the arid plain, about 24 miles from the north coast. It carries on some trade in agricultural produce by means of the small harbour of *Sisal*, which is formed by a sandbank, and has little depth of water. Population, 36,000. *Campeche*, a fine handsome town, completely fortified, on the west coast, has a population of 18,000, and exports considerable quantities of wax, and of the dye-wood which goes by its name. Its harbour is not very safe; and large ships cannot lie near the town, on account of the shallowness of the water. Considerable quantities of the same wood are also exported from *Bacalar*, a town on the Rio Hondo, which flows into the Bay of Honduras, north of Belize. In the eastern part of the State, and particularly to the south of Merida, there are the remains of several ancient stone structures; one of which, called by the natives Oxmutal, is still in good preservation. It is about 600 feet square, the rooms, corridors, and pillars are ornamented with figures, in half relief, of serpents, lizards, &c., in stucco. There are also figures of men, in the attitude of dancers, and resembling in every respect those which are found in the ruins at Palenque.

VII. THE UNITED STATES OF CENTRAL AMERICA.

These States include the narrow tract of country which extends from Mexico to the isthmus of Panama, between the Caribbean Sea and the Pacific Ocean, being about 1000 miles in length, and from 90 to 250 in breadth. They comprise an area of 196,000 square miles, with a population of about 2,000,000, divided into the five States of *Guatemala*, *Honduras*, *Nicaragua*, *Salvador*, *Costa Rica*, and the federal district of *San Salvador*, besides the almost independent territories of *Poyais*, and the Musquito Indians on the north-east coast. The country is chiefly occupied by a long range or ranges of mountains, which, as in Mexico, form a table-land in the central parts of the country, reaching the general elevation of about 5000 feet above the level of the sea. There are also two large plains, those of Nicaragua and Comayagua, besides many of smaller size on the banks of the rivers, and along the sea coasts, which contain many deep and capacious gulfs and excellent harbours. The low country on the coasts is exposed to violent heat, and is extremely unhealthy. At Izabal on the Golfo Dulce, the heat is often from 90° to 100° , and at Ystapa, on the Pacific coast, it ranges between 86° and 90° in June. In the interior, however, an equable and agreeable temperature may be obtained at the different elevations; the city of New Guatemala, for instance, enjoys a temperature of perpetual spring, the thermometer ranging between 52° and 68° . The dry season lasts from October till the end of May, during which the north winds prevail. The rest of the year is called the wet season; but the rains, though heavy, fall only at night, and the days are generally fair and cloudless. Earthquakes are very frequent; and are supposed to be caused by the numerous volcanoes which are scattered along the southern shores, the loftiest and most remarkable of which is the *Volcorno d' Agua* (Water Volcano), near the city of Guatemala la Antigua, 12,620 feet above the level of the Pacific. This mountain has never emitted fire from its crater, but only torrents of water and stones. The country likewise abounds with warm and medicinal springs. The gold mines of Costa Rica, and the silver mines of Honduras, are rapidly increasing in their products. The soil is every where extremely rich. The great staple productions of the country, and its principal articles of exports, besides the precious metals, are indigo, cochineal, sarsaparilla, hides, mahogany, cedar, dyewoods, balsam of Peru, sugar, and rapadura, or panela. The last is a kind of brown sugar, chiefly used for the distilling of spirits. The country also produces tobacco as good as that of the Havana, cocoa, cotton; wheat, abundantly in Quesaltenango and other places; vanilla, coffee, pimento, pitch and naphtha, caoutchouc, and various medicinal plants, balsams, gums, and drugs. The tea plant also abounds, and silk may be successfully cultivated. Two species of locusts are remarkable, the brown and the green. The seas abound in pearls, tortoises, whales, and fish of various kinds. The birds are celebrated for their great variety, and the extraordinary beauty of their plumage. All the kinds of fowls common in Europe are reared. Cattle, horses, asses, sheep, goats, and hogs are in abundance; and though the horses are not good, yet the mules are of a very superior breed. The population is divided into the four grand classes of Indians, whites, blacks, and ladinos or mulattoes; the relative numbers of whom are: Indians, 685,000; whites, 475,000; ladinos, 740,000. The number of blacks is very inconsiderable. The constitution grants equal rights and privileges to all.

The independence of Central America was established in 1823, when the people adopted a constitution providing that the government should be vested in a Federal Congress, a Senate, and a President, appointed, not directly by the people, but by means of electoral colleges. The monarchical orders have been wholly abolished, but Catholicism remains the religion of the State. The Spanish laws have also been entirely abolished, and Mr. Livingston's Louisiana code established in their stead. The cities of the federation are twenty-nine in number. The first is *San Salvador*, the seat of the general government in the federal district, which forms a circle round the city, twenty miles in diameter, with a further extension of ten miles towards the south, so as to include the roadstead of *Libertad*, on the Pacific. The State of Guatemala is divided into seven departments, namely, Guatemala and Escuintla, Chiguimula and Zacapa, Vera-paz and Peten, Quesaltenango and Soconusco, Totonicapan, Sacatepequez and Chimaltenango, Sololo and Suchitepequez. In 1834, "The Eastern

Coast of Central America Commercial and Agricultural Company," established in London, obtained from the Government of Guatemala a grant by charter of the whole of the department of Vera-paz, which is about 250 miles in length, and as much in breadth, lying between 15° and 19° N. lat., and 88° and 92° W. long., and comprising at least 14,000,000 of acres; and subsequently a further grant of the port and district of Santo Thomas, containing about 1,000,000 of acres, which extends to the Bay of Honduras, between the river Motagua, on the south, and the Golfo Dulce with its outlet on the north. The company have already established a number of British and German settlers in Vera-paz, where they have founded two cities, one named *Abbotsville*, on a branch of the river Polochic, about 100 miles from the sea, and another named *New-Liverpool*, on the river Cajabon, two miles above its confluence with the Polochic. They have also engaged to build a town at the splendid harbour of Santo Thomas, on the Bay of Honduras, between the river Motagua and the entrance to the Golfo Dulce, both of which are navigable for a great distance inland, and form the principal Atlantic outlets of the State of Guatemala. This harbour resembles in form the edge of a horse-shoe, with an entrance two miles across, and five fathoms deep; within, the breadth is about six miles, with a depth of six fathoms up to the very shore, and protected from every wind. The river Polochic, which forms the highway between the sea and the settlements in Vera-paz, runs from west to east-south-east for a direct distance of about 70 geographical miles, and falls into the *Golfo Dulce*, a fine lake, 21 geographical miles in length, by 10 in breadth, with an average depth of 6 or 8 fathoms on a bottom of bluish clay. The outlet of the lake forms a navigable river, which runs six miles, and then forms another lake, 9 miles by 2, named the "golfete" or little gulf, from which it runs 8 miles farther to the sea, between two ranges of hills, covered with impenetrable forests, and so overhanging with verdure, as to be almost hidden at the entrance. The bar at its mouth has only 5 feet 9 inches water, and the Polochic is navigable only for vessels drawing less than 2½ feet.

The city of *Guatemala* is situate on an undulating plain 4961 feet above the level of the sea, at the distance of 26 leagues from the Pacific Ocean, in 14° 37' N. lat. and 90° 30' W. long. It is a well-built town with 40,000 inhabitants. *Old Guatemala* (la *Antigua Guatemala*, or *Santiago de los Caballeros de Guatemala*) is also a fine town amidst ruins, in a delightful valley, eight leagues west south-west of the new city, and containing 12,000 inhabitants. It has been several times destroyed by earthquakes and volcanic eruptions, and has been abandoned as the capital since the fatal earthquake of 1773. *Totonicapán*, the capital of the department of the same name, has a population of 12,000; *Quetzaltenango*, 14,000; *Cobán*, in Vera-paz, 14,000; *Salamá*, on the Polochic, 5000; *Izabal*, a village of about 40 huts, 3 houses, and a court-house, on the southern shore of the Golfo Dulce. The greatest part, however, of the export and import trade of Guatemala is carried on by the port of *Izabal*, and by that of *Omoa*, on the left of the entrance to the gulf.

The cities of Costa Rica, are, *San José*, *Cartago*, *Esparza*, *Atajuela*, *Eredia*, *Estrella*; of Nicaragua, *Leon*, *Granada*, *New Segovia*; of Honduras, *Comayagua*, *Tegusigalpa*, *Gracias*, *San Pedro Sula*, *Olanchito*, *Sonaguera*, *Trujillo* or *Truxillo*; of Salvador, *San Vicente*, *San Miguel*, *Santa Ana*, *Sanmate*. The principal ports, besides *Izabal* and *Omoa*, are *Truxillo*, in the Bay of Honduras, *San Juan de Nicaragua*, *Moin*, and *Dacotari* in the Caribbean Sea; *Calderas*, *El Realejo*, *La Union*, *Libertad*, *Acajulla*, and *Istapa*, in the Pacific.

VIII. COLOMBIA, comprising the Republics of VENEZUELA, NEW GRANADA, and ECUADOR.

After the revolt of the Spanish colonies, those in the north-western part of South America were formed into a large State, which assumed the name of Colombia or Columbia, in honour of the great discoverer; but, since 1831, Colombia has been divided into the three independent republics of Venezuela, New Granada, and Ecuador or Equator; the first occupying the north-eastern, the second, the north-western and central, and the third, the southern portions of the country. Colombia is situate between 12° 25' N. and 5° S. lat., and between 60° and 83° W. long.; being about 1320 miles from east to west, and 1100 from north to south, and comprising an area of 1,160,000 square miles. The country is now divided among the new republics in the following proportions, namely, Venezuela, which comprehends 450,000 miles, with 900,000 inhabitants; New Granada, 340,000 miles, with 1,687,000 inhabitants; and Ecuador, 325,000 miles, with 600,000 inhabitants. The country is naturally divided into three zones or belts. The first comprehends the portion between the Pacific Ocean and the Caribbean Sea and the Andes; the second, the mountainous region; the third, the immense savannahs which stretch southward and eastward from the Andes to the river Amazon, with the mountain border of the basin of the Orinoco. The coast along the Caribbean Sea extends 2000 miles, and is indented with bays and inlets; that along the Pacific extends 1200 miles.

VENEZUELA comprises the eastern part of the country, stretching along the Atlantic Ocean and the Caribbean Sea, from the river Essequibo to the west side of the gulf of Maracaibo; and is divided into four departments, whose names and principal towns are stated in the following table:—

Departments.	Cities and Towns.
VENEZUELA, .	Caracas, La Guayra, Vittoria, Maracaibo, Calabozo, Los Reyes; Valencia, Puerto-Cabello, Tocuyo, Carora, San-Carlos, San Felipe, Aroa.
MATURIN, . .	Cumana, Barcelona, Assumpcion, Cariaco, Guiria, Carupano, Cumanacoa, Maturin, Aragua, Maniquarez, El Pao, San Diego, Piritu, Pamptar.
ORINOCO, . .	Varinas, Achagua, Angostura; Guanare, Obispos, Araure, Ospino, Nutrias, San Fernando, Mantecal, Payara, Esmeralda.
ZULIA, . . .	Maracaibo, Coro, Truxillo, Merida, Gibraltar.

Caracas, the capital, is situated in a delightful valley, at the foot of the peak of Silla, 330 feet above the level of the sea; but having been entirely destroyed by an earthquake in 1812, it has scarcely yet risen from its ruins. It is, however, the centre of a great trade with the interior, and contains upwards of 20,000 inhabitants. *La-Guayra*, a small sea-port town, with 4000 inhabitants, has a bad harbour, and an unhealthy climate, but is of great importance as the port of Caracas. *Valencia*, a considerable town, with 15,000 inhabitants, in a fine situation, with a healthy climate. *Puerto-Cabello*, an important sea-port town with a good harbour and a great trade, but in an unhealthy situation, and having only a population of 3000; 68° W. long. *Cumana*, a decayed city, with 10,000 inhabitants, is rendered important by its fortifications, trade, and fine bay, which is capable of receiving all the navies of Europe, with excellent anchorage for large ships, but the climate is intensely hot; W. long. 64° 16'. *Varinas*, south of the Lake of Maracaibo, was once a flourishing city, but has now declined to a population of about 3000. *Angostura* or *New-Guyana*, a small episcopal city on the Orinoco, with 3000 inhabitants, is important from its situation as a shipping port on the river. *Maracaibo*, a fine town on the west side of the strait which connects the lake with the bay of the same name, possesses a college, a pilot-school, several building ships, and is defended by three forts. Population 20,000. *Merida*, a small city with 5000 inhabitants, contains a university of the second rank, and a college. The Island of *Margarita* is situated off the coast of Cumana, from which it is separated by a channel

20 miles wide, through which all vessels coming from Europe, or windward of Cumana, Barcelona, and La Guayra must pass in going to those ports. The island is 37 miles long and from 5 to 20 wide, with a population of 15,000. It derives its name from the pearl fishery, for which it was once much celebrated, but which has greatly declined. The island is of little value. The chief towns are *Assumpcion*, the capital, in the centre, and *Pampatar*, on the south-east coast, with a good harbour, and anchorage in seven or eight fathoms water.

NEW-GRANADA comprises the isthmus of Panama, and the adjacent north-western part of South America. It is divided into four departments, whose names and chief towns are stated in the following table :—

Departments.	Cities and Towns.
CUNDINAMARCA,	Bogotá (or Santa Fe de Bogotá), Medellín, Neyba, Honda, Antioquia.
CAUCA,	Popayan, Pasto, Iscuande, Quibdo.
ISTHMO,	Panama, Porto-Velo (Portobello), Chagres, Santiago de Veragua.
MAGDALENA,	Carthagena, Mompox, Santa-Marta, Rio-Hacha.
BOYACA,	Tunja, Pamplona, Cucuta, Socorro, Pore.

Bogotá, the capital, is situate at the foot of two mountains which shelter it from the violent east winds, on an elevated table-land, 8650 feet above the level of the sea, in N. lat. $4^{\circ} 37'$ and W. long. $74^{\circ} 10'$. The temperature of the atmosphere is fine and equable, but the climate is exceedingly humid, though not unhealthy. Externally, the city has an imposing appearance, but the streets are generally narrow though regular, with low houses. Nearly half its area is occupied by religious buildings, there being 26 churches besides the cathedral, 9 monasteries, and 3 nunneries. Population about 30,000. (See *ante*, p. 873). *Popayan*, a fine city, in a beautiful situation, near the sources of the river Cauca, contains a mint, a university, and about 7000 inhabitants. *Panama* is a well-built city, on a peninsula of the southern coast of the isthmus to which it gives its name. It has no harbour, but only a bad roadstead, and the population does not exceed 10,000. *Porto-Velo* or *Portobello* is a very small town or village on a fine natural harbour, but in so unhealthy a situation that it has acquired the title of the grave of Europeans. It stands on the north side of the isthmus, nearly opposite Panama. *Chagres*, a small town west of Portobello, derives its importance from its situation at the mouth of a river which affords an accessible passage from the north coast to within a short distance of Panama. *Carthagena*, an episcopal city on a sandy island off the north coast to the westward of the Rio Magdalena, possesses one of the finest harbours in America. It is strongly fortified, and contains about 18,000 inhabitants; and though much decayed, is still the centre of a considerable trade. *Santa-Marta*, a fortified town, on the coast to the eastward of the Magdalena, with considerable trade and 6000 inhabitants. *Rio-Hacha*, farther east, is a small town with only 1000 inhabitants, but is noted for the pearl fishery in its vicinity.

ECUADOR is so named from its lying under the equator, and extends only a few degrees of latitude to the north and south of it. It is divided into three departments, as stated in the following table :—

Departments.	Cities and Towns.
ECUADOR,	Quito, Antisana, Tacunga, Esmeraldas, Riobamba, Ibarra.
GUAYAQUIL,	Guayaquil, Puerto-Viejo.
ASSUAY,	Cuença, Loxa, Cañar, Giron.

Quito is a large but ill-built city, in a valley enclosed by two ranges of the Andes, 9630 feet above the level of the sea, with a population of about 70,000. *Riobamba* is also a large town, with 20,000 inhabitants. *Guayaquil* is a commercial and seaport town, on a bay of the Pacific, with 22,000 inhabitants. *Cuença* is a well-built city, with 20,000 inhabitants. About 30 miles from Cuença is the famous *Paramo d'Assuay*, where many travellers perish from its terrible storms.

IX. THE REPUBLIC OF PERU.

This Republic is situate on the western side of South America, having Ecuador and Brazil on the north; Bolivia and the Pacific Ocean on the south; Brazil and Bolivia on the east; and the Pacific Ocean on the west; between 3° and 22° S. lat., and between 65° and $81^{\circ} 20'$ W. long., being about 1500 miles in length, by 900 in breadth, and comprising an area of considerably more than 500,000 English square miles. The western portion of the territory is occupied by the highest ranges of the Andes, with their offsets and intervening valleys, while the eastern part slopes down into the great plains which occupy the centre of the continent, and are drained by the affluents of the La Plata and the Amazon. The independence of Peru was declared on the 15th, and more formally announced on the 28th of July 1821. In May 1822, a congress, which assembled at Lima, formed the plan of a constitution on the model of that of the United States of North America. But the government is still extremely unsettled, and in 1837 the country was placed under the protection of the president of Bolivia. It is divided into seven departments :—

Departments.	Cities, Towns, &c.	Departments.	Cities, Towns, &c.
LIMA,	Lima, Callao, &c.	AYACUCHO,	Huamanga, Huancabelica, Jauja.
AREQUIPA,	Arequipa, Arica.	JUNIN,	Huanuco, Pasco, Junin, Baños.
PUNO,	Puno, Chucuito, Lampa.	LIBERTAD,	Truxillo, Sechura, Payta.
CUZCO,	Cuzco, Abancay, Tinta, Urubamba.		

In 1836, however, the representatives of the four southern provinces assembled at Sicuani, declared their separation from the republic of Peru, and their incorporation as an independent state, under the title of *Estado Sud Peruano*, The South Peruvian State. This new State embraces the four provinces of Cuzco, Ayacucho, Puno, and Arequipa; the largest portion of its territory is situate among the Andes, or in the valleys which descend from the Cordillera. They are inhabited by a very numerous, agricultural, and industrious Indian population, and have hitherto formed the fairest portion of the Peruvian State. The assembly of Sicuani placed their country under the protection of General Santa Cruz, the enlightened president of Bolivia, whose administration of that republic, since 1829, had rendered it the model of good government, internal tranquillity, and financial prosperity.

Lima, the capital, is situate on the river Rimac, in a delightful valley, between 500 and 600 feet above the level of the sea, at the distance of six miles from the Pacific, in S. lat. $12^{\circ} 2'$, and W. long. $77^{\circ} 17'$. It is surrounded by a parapet wall about 7 miles in circuit; and, when seen from a distance, has an imposing appearance. The interior is divided into squares of houses, with streets crossing each other at right angles; but, on account of the frequency of earthquakes, few houses are more than one storey high, and the roofs are uniformly flat; and, till of late years, few of the windows had either glass or sashes. Besides a great many convents and nunneries, with churches attached, the city contains 57 churches and 25 chapels. The cathedral, founded by Pizarro, and containing his remains, is a large fine building, with a magnificent interior. Several of the conventual churches are also remarkably rich. Lima is still the emporium of the trade of Peru, in which most of its inhabitants are engaged; the manufactures are insignificant. According to a census in 1818, the population amounted to 54,098.

Callao, the port of Lima, is connected with the city by a straight road, six miles in length. It is well fortified, but the houses are poor and mean, consisting of mud walls and flat roofs. The roadstead is the best in Peru; and there is a rudely constructed pier, at which vessels may load and unload. *Arequipa*, in the valley of Quila, 7700 feet above the level of the sea, from which it is 30 miles distant, in S. lat. $16^{\circ} 30'$, is a large town, with about 30,000 inhabitants. *Arica*, a seaport town on the Pacific, in S. lat. $18^{\circ} 28'$, a poor town, is the natural outlet of one of the principal mining districts of South America, and of a large extent of country; but, owing to the heavy surf which beats upon the shore, it is always difficult, and sometimes impossible, to effect a landing, except in the balsas of the natives, which are a sort of floats made of inflated seal-skins. The town has only between 200 and 300 inhabitants. *Puno*, the capital of a department, is said to have 18,000 inhabitants. *Cuzco*, the ancient capital of Peru, is nearly as large as Lima, but not quite so populous, the number of its inhabitants amounting, in 1826, to 46,123. It is situated in a valley or plateau 11,380 feet above the level of the sea, about 400 miles E.S.E. of Lima, in S. lat. $13^{\circ} 30'$. The cathedral, and the convent of St. Augustine, are said to rank among the finest religious buildings of the New World. It still contains several remains of the architecture of the Incas, and many of the private houses belong to that era. The people are said to be industrious, and to excel in embroidery, painting, and sculpture. Cuzco contains manufactures of cotton, linen, and woollen stuffs, leather, and parchment; and has a considerable trade in these and the products of the adjacent district. *Huamanga*, the chief town of the department of Ayacucho, is a large and flourishing commercial town, with 39,000 inhabitants. *Truxillo* is a fine city, with 14,000 inhabitants, on the coast, 300 miles N.N.W. of Lima. The desert of Atacama divides Peru from Chili, and is nearly 10 miles in length, through which a river abounding in salt flows. It seems to have been the favourite burying-place of the Peruvians for successive ages. The climate, salt, and sand dry up the bodies, and the remains of whole generations may now be seen there, after the lapse of perhaps thousands of years.

X. BOLIVIA or UPPER PERU

Is situate between $9^{\circ} 30'$ and $25^{\circ} 40'$ S. lat., and 58° and 71° W. long., having Lower Peru, on the north and north-west; Brazil and Paraguay, on the east; Chili and La Plata, on the south; and the Pacific Ocean, on the west. It is about 1100 miles in length N.-S., and about 750 in breadth, and comprises an area of about 320,000 English square miles. In the west it is traversed by lofty mountains, while in the east it stretches into immense plains. Upper Peru remained in possession of the Spanish Government till 1824, when it was rescued from their grasp by the battle of Ayacucho, and its independence declared in August 1825. The government is still unsettled, and has already experienced many changes. The statistics and present state of the country are very imperfectly known, and the population of both the country and the cities is very variously estimated. Balbi states the general population at 1,300,000; Brackenridge, at 1,716,000; while some estimate it so low as 650,000. More than three-fourths of the people are believed to be aborigines; but though in a low state of civilization, they have been converted to Catholicism. The country is very unfavourably situated for communicating with foreign nations.

Chuquisaca, formerly *Charcas*, the capital, is a considerable town, with 12,000 inhabitants, situate in a plain 9250 feet above the level of the sea, on the east side of the Andes. *La Paz d' Ayacucho* is a large episcopal city, with 40,000 inhabitants, in a deep valley, 10,883 feet above the level of the sea; a few miles to the south-east is the Nevado d' Illimani, the highest peak of the Andes, after that of Sorata. *Tiahuanacu*, near the lake of Titicaca, is celebrated for its ruins, which are believed to be the remains of a people who possessed the country before the rise of the empire of the Incas. The islet *Titicaca*, which gives its name to the lake, is celebrated in Peruvian history as the place where Manco Capac received the divine call to be the lawgiver of Peru. The Peruvians consequently regarded it as a sacred place, and the Incas built upon it a temple of the sun, which they covered with plates of gold; and to it people brought from all parts of the empire rich offerings of gold, silver, and precious stones; all of which are said to have been cast into the lake at the arrival of the Spaniards. *Potosi*, a large but decayed city, at the foot of the Cerro de Potosi, which has been celebrated for the prodigious quantity of silver obtained from it since the mine was first discovered in 1545. The mountain is pierced with mines in every direction. The great square of the city is 13,314 feet above the level of the sea. At the time of its greatest prosperity the city contained 160,000 inhabitants; but in 1826 the number was reduced to 9000. *Cochabamba* is a large city, with 30,000 inhabitants, in a fertile and well-cultivated country. *Santa-Cruz-de-la-Sierra* is a small and ill-built episcopal city, in the midst of an immense plain, with 9000 inhabitants.

XI. CHILI or CHILE (TSHEELE)

Is situate between 25° and 41° S. lat., along the coast of the Pacific, and comprises the country between the crests of the Andes and the sea, being about 1150 miles in length, by 120 in breadth, and containing an area of 130,000 square English miles. The shores are mostly high, steep, and rocky; but have almost every where deep water: there are several tolerable harbours, the best of which are those of Valdivia, Concepcion, Valparaiso, and Coquimbo. The climate is equable and healthy. Both the climate and the soil of the southern and the central parts are suited to the culture of European grains; but only the middle provinces produce a sufficient quantity of corn to admit of exportation. Wheat is the staple, and, in the north, almost the only grain cultivated. Barley is grown in the south; but agriculture generally is in a very backward state; the breeding of cattle is the most important branch of rural industry. Some farms feed from 10,000 to 15,000 head: some even so many as 20,000; and the smallest contain from 4000 to 5000. The horses, mules, and asses, are well made, and useful animals; the sheep are said to be very inferior. The people are chiefly of Spanish and Indian descent; but there are some negroes and mulattoes. Their religion is the Roman Catholic; but the clergy are not numerous; other religions are tolerated, though the exercise of their public worship is not allowed. The executive government is vested in a president and council; the legislative, in a congress of 56 members, who are elected by the provinces. The Chilenos are good potters, and make light and strong earthenware jars which ring like metal. Canvas, cordage, soap, copper-ware, leather, brandy, tallow, and charcoal, are the chief articles manufactured. The commerce has of late years been rapidly increasing. Most of the foreign trade is maintained with Great Britain; the exports are chiefly bullion, copper, hides, tallow, pulse, wheat, fruit, and drugs. *Valparaiso* is the principal port, and the centre of the foreign trade. There is little means of internal communication. The only towns of any importance, except the capital, are situate on or near the coast, at a great distance from each other, and there are few or no roads which are passable by carts.

Santiago, the capital, is situate on the banks of the river Mapocho or Topocahua, in a vast plain, and has a delightful climate. It is well built, with several fine public buildings, and contains about 55,000 inhabitants. *Valparaiso*, a fine newly-built town, with 20,000 inhabitants, is the principal seaport and the centre of the foreign trade of Chili. It has a fine harbour, with an easy entrance, sheltered from all winds except the north wind, which blows violently in winter. *Coquimbo*, a considerable seaport, with 12,000 inhabitants. *Concepcion*, a regularly built town, with 10,000 inhabitants, near the

mouth of the river Biobío, was completely ruined by an earthquake in 1835. *Valdivia*, a small fortified town, in the Araucanian territory, with a superb natural harbour, which is considered as one of the finest in America. Population about 5000.

XII. THE UNITED PROVINCES OF LA PLATA, or THE ARGENTINE REPUBLIC.

These provinces, with the exception of Paraguay and Banda Oriental, comprise the whole of that vast country which lies between Brazil and the Cordillera of Chili and Peru, and extends from the 22° to the 41° S. lat. They comprehend altogether an area of 726,000 square miles, with a population of 600,000 or 700,000 inhabitants. This vast territory is now divided into thirteen provinces, which govern themselves independently to a certain degree; though, for all general and national purposes, they are confederated by conventional agreements. From the want of a more defined national executive, the provincial government of Buenos-Ayres is temporarily charged with carrying on the business of the Union with foreign powers, and with the management of all matters that concern the republic in common. The executive power of that government is vested in the governor or captain-general, aided by a council of ministers chosen by himself, and responsible to the junta or legislative assembly of the province by whom he is elected.

Estimated Population of the Provinces in 1836-7.

Province of Buenos Ayres, from 180,000 to 200,000	Province of Catamarca, . from 30,000 to 35,000
..... Santa Fe, 15,000 . . . 20,000	..... La Rioja, 18,000 . . . 20,000
..... Entre-Ríos, 30,000 . . . 35,000	..... San Luis, 20,000 . . . 35,000
..... Corrientes, 35,000 . . . 40,000	..... Mendoza, 25,000 . . . 40,000
..... Cordova, 80,000 . . . 85,000	..... San Juan, 22,000 . . . 25,000
..... Santiago, 45,000 . . . 50,000	
..... Tucuman, 40,000 . . . 45,000	
..... Salta, 50,000 . . . 60,000	
	From 600,000 to 675,000

Besides the independent Indians within the territory claimed by the republic.

Excepting only along the western and the eastern borders, where the offsets of the Chilian, Peruvian, and Brazilian Andes are found, the whole of this region is a vast plain, traversed in its north-east and central portions by the numerous affluents of the Plata, and stretching out to the south-west into the boundless *pampas*. These plains, reaching from the eastern terminations of the Andes to the shores of the Plata, appear to be one immense bed of alluvium, tranquilly deposited during the lapse of ages, and now presenting a uniformly level surface, which is covered with long grass. Towards the north-west, between the provinces of Cordova, Santiago, Catamarca, and La Rioja, between 28° and 30° S. lat., is a vast sandy plain, from 30 to 40 leagues in breadth, which is for the most part covered with a saline efflorescence, and produces a *salsola*, from the ashes of which soda is extracted. It is called the *Traxeria* or *Las Salinas*. The country is capable of producing, in its northern and central portions, all the usual productions of tropical countries, and in the south it yields good wheat; but hitherto the staple articles of produce have been animal and mineral only. Gold, silver, and copper, are exported in small quantities; but ox-hides, horse-hides, and horns, in enormous quantities; with beef, horse-hair, sheeps-wool, chinchilla skins, tallow, sheep-skins, &c., in smaller quantity. The value of the ox-hides exported in 1837 was 3,294,540 dollars; of horse-hides, 38,046 dollars; of horns, 446,192 dollars; and of the total exports, 5,637,138 dollars, or £1,127,427 sterling. The hides and horns, which form two-thirds of the value of the exports, are the produce of the vast herds of horses and beeves reared mostly in the pampas, which are no longer a useless and unappropriated waste, in which the animals run wild as formerly, but have been carefully measured out and allotted to individuals, who are obliged to set up and preserve their marks of possession. It is calculated by the best authorities, the most extensive proprietors in the province, that the present stock of cattle, in the territory of Buenos Ayres alone, may be from three to four millions; and it is supposed there may be above another million in the other provinces. From this we ought to calculate upon an annual exportation of nearly a million of hides, with a gradual increase.—(*Buenos Ayres and the Provinces of the Rio de la Plata, their present State, Trade, &c., by Sir Woodbine Parish, K. C. H., &c. Lond. 1839.*)

Buenos Ayres, the capital, is situated on the south-western shore of the Plata, in S. lat 24° 36'. It is built on a regular plan, with streets crossing each other at right angles, which are now tolerably well paved, and provided with foot-paths; but contains no public buildings of any importance, except, perhaps, the cathedral, a large and handsome building, the interior of which is profusely decorated with carving and gilding. The population amounts to about 100,000; of whom from 15,000 to 20,000 are foreign, chiefly English and French. Though close to the river the city has no harbour, and ships drawing 16 or 17 feet water anchor in the outer roads, 7 or 8 miles from the shore, loading and unloading by means of lighters. Between the outer and the inner roads there is a dangerous bar, and the water becomes so shallow on the beach, that even boats cannot come close to the shore, but are met in the water by ox-carts, in which the goods are deposited, at no little risk, and sometimes with much loss. The climate of Buenos Ayres is influenced not so much by its latitude as by the wind, a change of which produces an alteration of 20° or 30° in the thermometer. The heat in summer is at times almost intolerable; the thermometer being perhaps at 90° within doors, and all nature gasping for air; but on those very days the most experienced of the natives are clothed in warm woollens instead of linen jackets, for fear of catching cold. During the greater part of the year the prevailing winds are northerly; and these passing over the marshy tracts of the interior, and the broad expanse of the Plata, bring with them a great degree of humidity, which produces a general lassitude and relaxation, and induces great liability to colds, sore throats, and other evil consequences of checked perspiration. Buenos Ayres is, however, free from agues and fevers, which are rarely known. But from the bad effects of the north wind the atmosphere is occasionally most effectually cleared by the *pamperos* or south-west winds, which, originating among the snows of the Andes, and rushing with unchecked violence across the pampas, become often hurricanes before they reach the city, and not unfrequently bring with them clouds of dust, which occasion almost total darkness. Sometimes also the *pampero* is accompanied by the most terrific thunder and lightning, than which nothing can be more appalling. The city of *Corrientes*, founded in 1588, is situate in S. lat. 27° 27', at the junction of the rivers Parana and Paraguay, which afford every facility for an active commercial intercourse with the most remote parts of the republic, as well as with the sea; but, without steam navigation, which has not yet been introduced, these cannot be made available. *Cordova* is situate in S. lat. 31° 26', 172 leagues distant by the post-road from Buenos Ayres, in a pleasant valley, on the banks of the river Primero. It contains many churches, and is the seat of a university, once held in great repute, but now dwindled down to the dimensions of a provincial school. At present Cordova forms a sort of centre of communication between the upper provinces and Buenos Ayres. *Santiago-del-Estero*, a miserable, ill-built place, with 4000 inhabitants, in S. lat. 27° 47'; and, 40 leagues beyond Santiago, is the city of *San-Miguel-de-Tucuman*, in an elevated plain, where the climate, though hot, is dry and salubrious; and where nature has been so prodigal

of her choicest gifts, that the province of Tucuman well merits its appellation of the garden of the United Provinces. The city contains from 7000 to 8000 inhabitants. *Catamarca*, 60 leagues S.W. of Tucuman, contains about 4000 inhabitants; the city of *Salta*, in lat. $24^{\circ} 30'$, and 414 leagues from Buenos Ayres, contains between 8000 and 9000; *Mendoza*, $32^{\circ} 52'$ S. lat. and $69^{\circ} 15'$ W. long., and 4891 feet above the level of the sea, contains about 10,000 inhabitants. About 106 miles W. by N. of the city is the volcano of Aconcagua, one of the highest of the Andes. The most southern settlement of the Buenos Ayreans is the little town *Del Carmen*, on the Rio Negro.

XIII. PARAGUAY

Is situated between 20° and 25° S. lat., extending along the eastern bank of the river Paraguay, from the Rio Parana to the Rio Blanco, about 450 miles, with a breadth of 180 miles; and is bounded on the south and east by the Parana. It comprises an area of about 80,000 square English miles, with a population of about 250,000. Besides the natural productions common to the region and climate, Paraguay produces a species of tea, called yerba-maté, which is as much in general use and demand through all the provinces of La Plata, Chili, and many parts of Peru, as the teas of China are in Europe. The plant which produces it (*Ilex Paraguayensis*) of which there are three species, is an evergreen, about the size of an orange tree, which grows wild and in great abundance in the dense forests of the northern and eastern parts of the province, to which the people repair yearly in numerous gangs to collect it. When the colonies revolted in 1810, the people of Paraguay refused to acknowledge the central government established at Buenos Ayres, declared their absolute independence, and established a government, the whole power and direction of which fell ultimately into the hands of Dr. Don José Gaspar de Francia, who has ruled the province for many years as absolute dictator, exhibiting a systematic selfishness, cruelty, and despotism, almost unparalleled in the history of any country. His revenue arises chiefly from properties confiscated, and from tithes in kind on all articles of produce. The principal expenditure consists in the maintenance of a large militia force, in which every person capable of bearing arms is enrolled and obliged to do duty in his turn. Francia is of course commander-in-chief of the army, and is head of the church, the law, and every other branch of administration. The only trade has been carried on on his own account, and merely such as has been necessary to further his policy of habituating the people to look to him and to him only for the supply of all their wants.—(*Parish*, 226, &c.)

Asuncion (Assumption) the capital, is finely situate on an eminence on the left bank of the Paraguay, in S. lat. $25^{\circ} 16'$. It is an ill-built town, with unpaved streets, and houses little better than huts, but contains about 10,000 inhabitants. It is the centre of a considerable trade in hides, tobacco, timber, yerba-maté, wax, &c.; and the adjacent country is comparatively well cultivated and populous.—(*Robertson's Paraguay*, I. 288.)

XIV. URUGUAY, or the BANDA ORIENTAL.

This is a very compact territory, extending along the northern shore of the Plata, and is bounded on the west by the river Uruguay, on the south-east by the Atlantic Ocean, and on the north-east and north by the Brazilian territory; comprising an area of about 75,000 square English miles, with a population of about 120,000, which is rapidly increasing. It was formerly a portion of the vice-royalty of Buenos Ayres; being afterwards subdued by the Portuguese, it became a province of Brazil; but, at last, by an article in the treaty of peace between Brazil and Buenos Ayres, it was declared independent.

Monte Video, the capital, is a fortified town with a citadel, situate on a peninsula on the northern shore of the Plata, 125 miles E. by S. of Buenos Ayres, and contains 10,000 inhabitants. The houses are built of stone or brick, but are seldom more than one storey high, and flat-roofed; and the streets are unpaved, so that they are either clouded with dust or loaded with mud, as the weather happens to be wet or dry. The town is ill supplied with water, and contains no public buildings of any importance; but the harbour is the best on the Plata. It is a large circular basin open to the south-west, and having on its western side the hill (*Monte Video*), from which the city derives its name. On the top of the hill is a lighthouse, the lantern of which is 475 feet above the level of the sea. *Maldonado*, 85 miles E. of the capital, is a fortified seaport town on the Plata. It is a small quiet town, with scarcely any trade. *Colonia del Sacramento* is a seaport town at the Plata, nearly opposite Buenos Ayres.

XV. THE EMPIRE OF BRAZIL.

This extensive territory stretches along the Atlantic Ocean from $4^{\circ} 17'$ N. to 33° S. lat., about 4600 miles, occupying the eastern part and a large portion of the centre of the continent to the extent of about 2,500,000 square miles. Nearly two-thirds of the country consist of high lands and mountains; and the cultivated lands bear a very small proportion to those still lying in a state of nature. The total population has been estimated at 5,300,000. The most celebrated of the natural productions of Brazil are diamonds, which are found in the provinces of Minas-Geraes, Minas-Novas, Goyas, and Matto-Grosso. The most celebrated mines are those of Serra-do-Frio, which are also known by the name of the Arraij Diamantino, or Diamond district. This district is surrounded by almost inaccessible rocks, and used to be guarded with so much vigilance that not even the governor of the province had the liberty of entering it, without the special permission of the director of the mines. Gold and silver are also supposed to exist in great abundance; and, after Mexico and Peru, Brazil has furnished Europe with the greatest quantity of these precious metals. Iron abounds in the mountain chain of Morro near Villarica, and in other places; while in the province of Minas-Geraes, there is a mine of magnetic iron-stone, containing from 80 to 90 per cent. of pure iron. Platina and copper have also been found in Minas-Geraes. Precious stones abound in Brazil, especially topazes, of which there are a great many varieties. Among the vegetable productions are sugar, coffee, cotton, cocoa, rice, tobacco, maize, wheat, mandioc, beans, cassava root, bananas, ipecacuanha, ginger, yams, oranges, figs. Of these the most important are sugar and coffee, which have indeed become the staple productions of the empire. Sugar is mostly produced in the vicinity of Bahia, and coffee, near Rio, but the cultivation is rapidly extending in other provinces. Cotton is grown in the province of Pernambuco, and, in respect of quality, is inferior only to the sea island cotton of North America. The forests furnish almost every variety of useful and ornamental timber, with logwood, and other dye woods, of which the most valuable is the Brazil-wood, which produces a beautiful red colour. The cocoa tree is plentiful on the sandy soil along the coast; and the carrasato or castor-tree, is much cultivated for the sake of the oil which is extracted from its seed. The useful animals, as horses, bees, and sheep, all introduced from Europe, have increased astonishingly; and hides, tallow, jerked beef, horns, and bones have long formed leading articles of export. Sheep, however, have not increased so rapidly as horses and bees. Manufactures can hardly be said to exist, and are restricted to the production of the coarsest kinds of cotton cloth, the tanning of leather, and some others of the simplest useful arts. The trade, however, is very extensive, and the commercial system is one of great freedom and liberality. Notwithstanding a convention between Great Britain and Brazil

whereby it was stipulated that the maritime slave trade should cease in 1830, negroes from Africa still form the most important article of import, the number being estimated at not less than 78,000 annually; and there seems little hope of the number being speedily reduced so long as the empire offers such a boundless extent of fertile and unoccupied land so admirably suited for the growth of sugar, coffee, cotton, and other colonial staples. The total number of negro slaves in Brazil amounts to about three-fifths of the population, or upwards of 3,000,000. The Portuguese and the white Brazilian creoles together amount only to 900,000 or less than a fifth of the population; the free mestizoes and mulattoes, to about 600,000; the mestizo and mulatto slaves are about 250,000; free negroes, about 180,000; converted Indians, 300,000; independent Indians, Europeans, and others, 150,000; making a total of 5,300,000.

In 1824, Brazil, formerly a colony of Portugal, was formed into a free and independent empire, monarchical, hereditary, constitutional, and representative. The Emperor, who is the head of the Portuguese royal family, is vested with the executive government, which he exercises by means of responsible ministers. In the general assembly resides the legislative power, subject to the Emperor's sanction. This assembly consists of two chambers, one composed of 54 senators, elected for life by the provinces; the other of 548 deputies, elected for four years. The revenues amount to about 13,600,000 dollars, derived from customs and excise duties, the produce of the diamond district, and other items. The public debt is about £15,000,000. The land forces amount to 60,000 men; of whom one-fourth are regular troops, the remainder consisting of militia called out when required for service. The established religion is the Roman Catholic, but all other forms are tolerated; literary education can hardly be said to exist; and monasteries and nunneries are extremely numerous. In short, the moral aspect of Brazil is one of the darkest on the face of the globe; and there seem as yet to be no elements at work to effect such a regeneration as the state of its society requires. For administrative purposes, the empire is divided into the eighteen provinces of *Rio-de-Janeiro*, *San Paulo*, *Santa Catharina*, *San Pedro*, *Matto-Grosso*, *Goaz*, *Minas-Geraes*, *Espiritu Santo*, *Bahia*, *Sergipe* or *Serecipe*, *Alagoas*, *Pernambuco*, *Parahyba*, *Rio-Grande*, *Ciara* or *Ceara*, *Piauhy*, *Maranhao*, and *Para*. These are subdivided into comarcas.

San Sebastiao de Rio-de-Janeiro, the capital, usually called simply *Rio*, is a large city on a beautiful bay of the Atlantic, on the south-east coast, in S. lat. $22^{\circ} 53'$. The city is tolerably well built, much in the European style, and contains about 200,000 inhabitants. The bay is about 60 or 70 miles in circumference, studded with islands, and opening to the Atlantic by a deep entrance, scarcely a mile wide, which is formed by two bold projecting headlands, and defended by several forts. Rio is the seat of a great trade, much of which is carried on by British merchants. *Cidade de San Salvador da Bahia de todos os Santos* (*The City of the Holy Saviour of the Bay of All Saints*), or simply *Bahia*, S. lat. $13^{\circ} 5'$, is a fine city, consisting of two towns, one built on the top of a scarped hill 600 feet above the level of the sea, and the other placed below it on the shore of a projecting point of land which forms the eastern entrance of the magnificent Bay of All Saints, one of the finest harbours in America. The cathedral in the upper town, built of European marble, is considered the finest church in Brazil; and generally, with respect to its public buildings, Bahia ranks first among the cities of the empire. The population is variously estimated between 120,000 and 160,000. The bay extends 28 miles inland N.-S., by 20 in breadth, and has two entrances separated by the island of Itaparica; the eastern, five miles wide, is used by large vessels, the other being only two miles wide, and only navigable by coasting craft. The country round the bay to the distance of from 12 to 29 miles inland is known by the name of *Recooncavo*, and is the most fertile and productive in the comarca. In this district is situate the town of *Cachoeira* or *Cazeira*, which carries on an extensive trade with the interior, and has a population of 16,000. *Cidade do Recife*, commonly called *Pernambuco*, in S. lat. $8^{\circ} 3'$, is composed of 3 towns, namely *Recife*, which is built on a peninsula, and the most commercial place; *Santo Antonio*, situate on an island of the river Capibaribe, joined to Recife by a great stone bridge; and *Boa-vista*, on the continent. They are the seat of a great trade, and contain about 60,000 inhabitants. Above the town, on a range of rocky hills, is the ancient city of *Olinda*, now much decayed, and containing only 7000 inhabitants. The harbour is formed by a reef or reef of rocks running parallel to the shore, and beating off the heavy sea which continually breaks upon it. *San Paulo*, on the coast south-west of Rio, is a large episcopal city, with 18,000 inhabitants. Its port of *Santos*, on the southern shore of the island *San Vicente*, has a safe and good harbour, considerable trade, and 8000 inhabitants. *San Luis* or *Maranhao* (Maranhã), situate on the west side of the island of Maranhão, on the north-east coast, is a flourishing commercial town with 28,000 inhabitants. *Para*, a well-built episcopal city, on the east side of the estuary of the Rio Para, and the place of export for the productions of the wide range of country drained by that river, has about 20,000 inhabitants. *Victoria*, the capital of the province of *Espiritu-Santo*, 21° S. lat., has a good harbour, and 12,000 inhabitants. *Villa-bella*, the capital of *Matto-Grosso*, has 25,000 inhabitants.

XVI. GUIANA, GUYANA, or GUAYANA

Is the name of that wide region which lies between the Orinoco and the river Amazon. More, however, than one-half of Guiana is now included within the northern limits of Brazil, about a fourth, within the limits of Venezuela; and the remainder is divided into three portions named *British Dutch*, and *French Guiana*.

BRITISH GUIANA is the most westerly of the three, and comprises the country watered by the rivers Essequibo, Demerara, and Berbice, to the actual extent of about 12,000 square miles; but the extent claimed is no less than 64,000 square miles of additional territory within the limits of Portuguese and Spanish Guiana. The smaller and undisputed portion extends along the coast of the Atlantic from the Essequibo to the Corentyn, about 100 miles. An alluvial flat borders the coast, to the breadth of from 10 to 40 miles, terminating at the foot of a range of sandhills, from 30 to 120 feet high. Farther south are several ranges and groups of hills, one of which, about 5° N. lat., composed of primitive rocks, crosses the beds of the rivers from west to east, forming large cataracts; and about a degree farther are the Pacaraima Mountains, which likewise form cataracts in the larger rivers, and contain the sources of the secondary streams. The larger rivers have their sources in the Sierra d'Acaray, and its continuation the Serrania de Tumucurague, which form the watershed between maritime Guiana and the basin of the Amazon, and extend from west to east between 1° and 2° N. lat. The shores are skirted by mud banks, which extend from 12 to 15 miles seaward, and at their outer edges have only 3 or 4 feet of water, in consequence of which the approach to the coast is difficult, and at times, even to small boats, impracticable. The whole surface of the coast, in its natural state, is on a level with the high water of the ocean; but when drained, embanked, and cultivated, the ground consolidates, and sinks fully a foot, so that unremitting attention is required to keep out the water. The interior, with the exception of some savannahs, and the swamps on the Berbice, is mostly covered with hills and dense forests. The mean temperature of the year at Georgetown is $81^{\circ} 2'$; the maximum, 90° ; and the minimum, 74° on the coast. There are two wet and two dry seasons in the year. The great dry season begins towards the end of August, and continues till the end of November; after which there are occasional showers till the end of January. The short dry season then commences, and continues till the middle of April, when the rain begins to fall in torrents, and the rivers to overflow. During the rains the winds are generally westerly; in the dry season they blow chiefly from the ocean, particu-

larly during the day. Hurricanes are unknown, and gales unfrequent. Thunder storms occur at the changes of the seasons. The low and swampy coasts are unhealthy, but the interior is more salubrious. The forests abound with trees of immense size, yielding the most valuable timber, with many medicinal plants, dye woods, and woods for cabinetmaking. *Arnott* grows wild on the banks of the upper Corentyn; and there is another indigenous plant, called the *hai-arry*, a papilionaceous vine, the root of which is powerfully narcotic, and is commonly used by the Indians to poison the water for the purpose of taking fish. The staple vegetable productions are sugar, coffee, and cotton; of which the first is the principal, the two latter being now less extensively cultivated than formerly; and, since 1837, there has been a rapid decrease in the growth and exportation of them all, which may be ascribed, partly at least, if not entirely, to the cessation of slave labour. The total value of the exports amounted in 1836 to £2,135,379; but in 1839, only to £986,013. The government is vested in a governor and a court of policy, which consists, besides the governor himself, of the chief-justice, attorney-general, collector of the customs, the government secretary, and an equal number of unofficial persons elected from the colonists. The revenue is derived from taxes on produce, incomes of 500 dollars and upwards, imports of foreign manufacture, and horses, carriages, wine and spirit licences, &c. In 1836 it amounted to £106,081, and the expenditure, to £113,946. The population is partly Dutch and partly British, most of whom are Protestants of various sects; and in 1838, 11,363 persons were receiving instruction in the public schools. The colony is divided into the three countries of *Esequeibo*, *Demerara*, and *Berbice*, and contained, in 1834, 96,581 inhabitants, of whom only 3576 were white. The territory was a Dutch colony acquired by conquest in 1803.

Georgetown, the capital, is situated on the eastern bank of the Demerara river, and contains about 20,000 inhabitants. The streets are wide, and traversed by canals; the houses are of wood, and few are more than two storeys high. Within a mile of the town, near the mouth of the river, is Fort William Frederick, a small mud fort. *New Amsterdam*, on the Berbice, is a small town with 5000 inhabitants, and is reckoned less unhealthy than Georgetown.

DUTCH GUIANA extends along the coast from the river Corentyn, which separates it from Berbice, to the Maroni, which divides it from Cayenne; its length being about 250 miles, and its area about 38,500 square miles. The aspect of the country, the climate, and natural productions, are much the same as those of the British territory. The principal river is the *Surinam*, which has a course of 300 miles, and gives its name to the northern part of the colony. The Government is vested in a governor-general and a high council. The population, exclusive of Indians and Maroons, is about 65,000, of whom 6000 are white and free coloured people, mostly Dutch, French, and Jews; the remainder consists of negro slaves. The capital is *Paramaribo*, a town with 20,000 inhabitants, neatly laid out in the Dutch style; and situated on the right bank of the Surinam, 18 miles from its mouth, where the river affords excellent anchorage. The fort of *Zeelandia*, a little north of the town, is the residence of the governor, and the seat of most of the government establishments. The inhabitants maintain an active commerce with Holland.

FRENCH GUIANA is the most easterly of the three colonies, and extends along the coast from the river Maroni to the river Oyapok, which forms the boundary of the Brazilian territory, as settled by a convention in 1817. Its length along the coast is about 230 miles, and its breadth 250, comprising an area of 27,560 square miles. The coast is an alluvial tract of great fertility; the high lands are also very fertile; and few countries are more abundantly watered. The coasts are low, and the sea so shallow that, except at the mouth of the river, ships cannot approach the shore. There is only one roadstead, that of Cayenne, where vessels can ride in security. The climate and natural productions are in every respect similar to those of British Guiana, with the addition of pepper, cloves, cinnamon, and nutmegs. The colony is divided into two districts, Cayenne and Sinnamary, and fourteen communes or townships. The government is vested in a governor, assisted by a privy council; and there is besides, the colonial council of sixteen members elected by the colonists; the public revenue amounted in 1837 to £9381, and the expenditure, to £60,279. The population in that year, besides the garrison and colonial functionaries, amounted to 21,648; of whom 5056 were free; the rest being slaves.

Cayenne, the capital, which is situate on the coast of a large island, about 18 miles in length by 11 in breadth, is strongly fortified, and a hill within the enclosure commands the whole town and the anchorage. It is an ill-built and ill paved town, and the greater part of the population are negroes or people of colour.

XVII. PATAGONIA

Is an extensive region, forming the southern extremity of the continent, and stretches from the Rio Negro, between 39° and 40° S. lat., to the Strait of Magellan, in 52°, nearly 900 miles. The western part of the country is formed by the southern portion of the Cordillera of the Andes, which there approaches the sea, and forms a number of lofty islands and peninsulas, which line the coast from Chiloe to the Strait. The general elevation of the chain is only about 3000 feet. The character given of this western region is very unfavourable. Wood and water are indeed abundant everywhere; fish are easily caught, and ducks, geese, and other birds are numerous; but of any other useful productions the country is quite destitute. The forests are very dense, and the ground always wet, so that the country is uninhabitable by civilized man; though the climate is mild, and the temperature surprisingly uniform throughout the year. The eastern coast is comparatively low, and the country beyond it is undulating, with extensive pampas covered with grass, but destitute of trees. The soil is dry and sterile, as the westerly winds leave all their moisture on the mountains that line the coast; while easterly winds, which alone bring rain to Eastern Patagonia, are very rare. It is also exposed to severe cold in winter, and excessive heat in summer. Great and sudden changes of temperature take place, when, after very hot weather, cold winds rush northwards with the fury of a hurricane. The indigenous inhabitants are a tall and robust race. They possess no towns, but lead a wandering and unsettled life. (See **PEOPLE**.)

XVIII. ISLANDS OF AMERICA.

The **ARCTIC ISLANDS** of America form a numerous group, between Hudson's Bay and Baffin's Bay; but being entirely barren, and only partially inhabited by a few wandering Esquimaux, we may pass them over without farther notice; though the exploring of them has been the object of many voyages, for the purpose of finding among them a north-west passage to China.

NEWFOUNDLAND is a large island which forms the eastern side of the Gulf of St. Lawrence, between 46° 49' and 52° 30' N. lat., being about 300 miles in length, by about 225 in its greatest breadth, and containing an area of 36,000 square English miles. The coast is indented by a number of deep inlets which afford commodious and secure harbours. The interior abounds in large lakes, and is traversed by considerable rivers. The surface, in general, is not heavily timbered; but there is no deficiency of wood. The climate is severe, and the winter long, while the coasts are often visited by cold and dense fogs; the heat of the summer is sometimes oppressive in the day time; but the mornings and evenings are temperate and agreeable. The island is however generally salubrious. The rich pastures adapt it peculiarly to the rearing of cattle, and good barley and oats might be grown; most of the common

English fruits ripen; various grasses grow spontaneously in all the plains, and potatoes, cabbages, turnips, carrots, parsnips, pease, radishes, and other culinary roots, yield most abundant crops. The wild animals are nearly the same as those of the adjacent parts of the continent. The Newfoundland dog is a well known animal; but it is believed that the genuine breed now exists only on the coast of Labrador. The important staple produce of Newfoundland is cod fish, which are caught in profuse abundance on the great banks, which extend to the south and east of the island, over an area as large as itself, or larger; and the principal settlements, between 60 and 70 in number, are scattered along the eastern and southern sides of the island, their inhabitants being mostly employed in, or dependent on, the fishery. *St. John's*, the capital, is a considerable town, having a good harbour, on the south-east coast, with a resident population of about 11,000. It is defended by numerous fortifications and batteries. The total population of the island is estimated at 86,000. The public business is managed by a house of assembly of 15 members chosen by the people, and a legislative and executive council.

ANTICOSTI, a large but barren island at the mouth of the *St. Lawrence*, has not a single good harbour, and is uninhabited, except by the keepers of the lighthouses, one of which is at the east end and the other at the west.

PRINCE EDWARD'S ISLAND, on the south side of the gulf of *St. Lawrence*, to the north of *Nova Scotia*, contains 2,130 square miles, and about 35,000 inhabitants. The surface is gently undulating, the soil good, the climate milder than that of the adjoining continent, and the coast has several good harbours. About 100,000 acres are under cultivation; but the fisheries and the lumber trade have almost entirely occupied the attention of the inhabitants. The island is, in civil matters, an independent colony, with its own lieutenant-governor, council, and house of assembly; but in respect of military affairs, it is under the charge of the commander of the forces of *Nova Scotia*. *Charlottetown*, the capital, has about 20,000 inhabitants.

The *Magdalen Islands*, are a group of small islands in the middle of the gulf of *St. Lawrence*, to the north of *Prince Edward's Island*. *Grand Miquellon*, *Petite Miquellon*, and *Saint Pierre*, three small islands belonging to France, near the southern coast of Newfoundland, are of great utility to the French fishers, of whom about 14,000 are employed on the Newfoundland banks. *Sable Island* is a long ridge of sand, about 90 miles S.E. of the most easterly point of *Nova Scotia*, and infamous for shipwrecks. It is about 27 miles in length by one or two in breadth, and in some places rises into hills 130 feet high. The only vegetation is coarse grass, with some low bushes. It lies directly in the way of vessels sailing to and from the British colonies, and the dense fogs which so often prevail, and the extensive shoals which surround the island, make it extremely dangerous and much dreaded. An establishment for the relief of shipwrecked mariners is kept on the island.

THE WEST INDIES comprise five large, and about 40 smaller islands, besides numerous rocky islets, called cayos or keys, surrounded by or interspersed with coral reefs and sandbanks. They are situated between 10° and 28° N. lat., and 59° 30' and 85° W. long., and are generally divided into three groups, named the *Lucayos* or *Bahamas*, the *Great Antilles*, and the *Lesser Antilles* or *Caribbean islands*.

The *Bahamas* comprehend fourteen principal islands, besides innumerable smaller islands and keys, extending in line from the coast of Florida to near Hayti, about 750 miles. The names of the principal islands are: *New Providence*; *Eleuthera*; *Abaco*; *Great Bahama*; *Guanahani*, called also *St. Salvador* or *Cat Island*, the first land seen by Columbus in his first voyage; *Exuma*; *Long Island*, *Walling's Island*, *Crooked Island*, *Mariquana*, *Great Inagua*, and the *Keykeys*. They are chiefly of coral formation, low, flat, scantily covered with soil, and most of them are uninhabited. The climate is mild and agreeable. *Nassau* in *New Providence* is the seat of government, and contains 6,000 inhabitants.

The *Great Antilles* are *Cuba*; *Haiti* or *Hayti*; *Porto Rico*; and *Jamaica*. The *Lesser Antilles* form a long chain, extending in a curved line from *Porto Rico* to the Gulf of *Paria*, usually called the *Windward Islands*; and of a smaller and more scattered group along the coast of *Venezuela*, usually called the *Leeward Islands*. But English writers give the latter name to the most northerly part of the first group, from *Dominica* to the *Virgin Islands*, restricting the appellation of *Windward Islands* to those between *Dominica* and *Trinidad*. Their names are: The *Virgin Islands*, including *Auegador*, *Tortola*, *Virgin-gorda*, *St. Thomas*, *St. John's*, *Santa Cruz*; *Anguilla*, *Saba*, *St. Martins*, *St. Bartholomew*, *St. Eustatius*, *St. Christopher's* or *St. Kitts*, *Nevis*, *Redonda*, *Montserrat*, *Barbuda*, *Antigua*, *Guadeloupe*, *Mariagalante*, *Dominica*; *Martinique*, *St. Lucia*, *St. Vincent*, *Barbadoes*, *Grenada* and the *Grenadines*, *Tobago*, *Trinidad*; and on the coast of *Venezuela*, *Buenayre*, *Curacao*, *Oruba*. Most of the islands contain isolated peaks or mountain ranges, the summits of which, in the larger islands, attain a great elevation. *St. Lucia*, *Martinique*, *Dominica*, *Guadeloupe*, *Montserrat*, *Nevis*, *St. Kitts*, and *St. Vincent* are volcanic islands, and several of the craters have thrown out smoke and ashes since the middle of last century. The volcanoes of the larger islands seem to be extinct. The other *Caribbean islands* are of secondary formation, and are not much raised above the level of the sea. The elevations of their principal mountains are:

		<i>Feet.</i>
Cuba,	Mount Potrillo,	9,000
"	Sierra de Cobre (Copper Mountains),	8,600
Jamaica,	Blue Mountains,	5,000 to 7,150
Hayti,	Cibao Mountains, Serranai,	8,600
St. Kitts,	Mount Misery,	3,712
Nevis,	Central Peak,	3,000
Dominica,	Highest Peak,	6,000
Martinique,	Mont Peleé,	4,400
St. Vincent,	Morne Garou,	4,800
Guadeloupe,	Soufriere,	5,500
Saint Lucia,	Crater of Volcano,	4,000
Porto Rico,	Sierra de Languilla,	3,678

Numerous streams descend from these mountains, which, though they do not reach the size of rivers, yet serve to water the fine plains and valleys, whose fertility is mainly owing to their influence.

The *West Indies*, with the exception of some of the *Bahamas*, lie within the tropics, and are therefore subject to great heat. Yet, even in the warm season, the length of the night, the sea-breezes, and the elevation of the land in some of them, tend to modify the sun's influence. The interior highlands of *Cuba*, *Hayti*, *Jamaica*, and *Porto Rico*, enjoy throughout the year a mild and delightful temperature, and several of the smaller islands possess the same advantage. But the lowlands, which are subject to the combined influence of great heat and moisture, have proved too often fatal to northern constitutions, and have given a bad character to the whole group. The fatality, however, is said to be owing more to intemperance and the little regard paid to that observance of time and season which the climate requires, than to its natural insalubrity. Both Europeans and negroes, who accommodate their manner of living to the climate, enjoy as good health, and live as long in the *West Indies*, as in any part of Europe. The yellow fever used to rage as an epidemic in this hot region, which rises to an elevation of 1200 feet above the level of the sea; but above that height commences what may be called the temperate zone of the *West Indies*. Ice sometimes forms in *Cuba* after a long continuance of the north wind, but snow never falls, and the inhabitants complain of cold when the thermometer falls below 70°. The year, as in most tropical climates, may be divided into two seasons, the wet and the dry, though there is sufficient variation to mark the four seasons of more

temperate regions. The spring may be said to commence in April, when a bright and beautiful verdure, with a rapid and luxuriant vegetation, makes its appearance; and, during May, gentle showers fall almost daily, breaking up with thunder-storms. From May till October, the tropical summer reigns in full vigour; and before the sea-breeze or the trade wind sets in, the heat is scarcely supportable. The sea-breeze begins in the forenoon between 11 and 12 o'clock, and blows with great regularity. The mean height of the thermometer at this season is 80°. The nights are beautiful, and are tempered by a land wind, which, especially in the mountainous islands, blows gently off the shore from about ten o'clock till daylight. With October commence the autumnal rains, when the water pours down in torrents. This continues till December, between which time and April, serene and pleasant weather prevails. From December till March the trade winds blow regularly from the east and north-east, diffusing a refreshing coolness. In March they begin to decline to the south-east, and decrease in strength; but they continue to blow, though with diminished force, till June, when they are often interrupted by calms. In August the hurricane season begins; these winds often do great damage in some of the islands; but they are rare in Cuba, and are never felt in Tobago and Trinidad. They happen most frequently in August, but also occur occasionally in July, September, and October.

The rich and varied productions of the West Indies give them an important place in the commercial world. To their valuable native plants art and industry have added others not less valuable. The sugar-cane, yielding its threefold tribute of sugar, molasses, and rum; the coffee plant, the pimento or all-spice, the plantain and the banana, the pine-apple, the anana, the yam, the sweet potato, maize, cassava, manioc; with cacao, tobacco, cotton, various dyewoods and stuffs, as fustic, logwood, indigo, cochineal; and medicinal plants, as liquorice-root, arrow-root, ginger, jalap, ipecacuanha; mahogany, and lignumvitæ, are among the vegetable productions. To this list must be added the bread-fruit, cocoa-nut, mango, papaw, guava, orange, lemon, tamarind, fig, cashew-nut, mammee, grenadilla, vanilla, pandanus, &c. The cattle are generally of diminutive size; only a few of the islands contain sheep and goats; few horses, asses, or mules are reared, and consequently great numbers of these animals are imported from the continent. Hogs are more abundant than other domestic animals. There are few wild animals, but wild swine, tajassoes, monkeys, rats, and some smaller animals. The manati is found in Trinidad and Tobago. The cayman and various other lizards, and snakes, are common. Fish and turtle are abundant. Parrots, flamingoes, and humming birds are also common. Mosquitoes, cockroaches, centipedes, scorpions, ants, and chigoes, abound in the islands.

The indigenous population of the islands has long been extinct, except a few hundreds in Trinidad. At the time of their discovery the southern islands were inhabited by the fierce and warlike Caribs; the more northern, by a gentler race, the Arrowauks. At present the population is European and African, partly pure and partly mixed. The negroes of pure race form nearly two-thirds of the whole; the whites are about one-fifth; and the mixed races, one-seventh. The population is diminishing; though in the Spanish islands the loss is continually supplied by importations from Africa. The following table contains the names, extent, and population of the principal islands:—

	<i>Area in Sq. Miles.</i>	<i>White Population.</i>	<i>Free Blacks.</i>	<i>Slaves.</i>	<i>Total Population.</i>
I. British.					
Anguilla,.....	50	..	2,715	..	3,080
Antigua,.....	90	365	..	..	35,412
Bahamas,.....	108	1,980	33,432	..	18,573
Barbadoes,.....	4,440	4,657	13,916	..	102,912
Barbuda,.....	164	14,959	87,956	..	..
Bieque or Crab,.....	72	..	..	..	..
Cayman,.....	40	..	..	..	..
Culebra,.....	60	..	..	..	..
Dominica,.....	12	..	..	..	..
Grenada,.....	275	840	17,990	..	18,830
Grenadines,.....	120	801	27,322	..	28,123
Jamaica,.....	30	..	..	..	..
Montserrat,.....	5,520	30,000	318,844	..	348,844
Nevis,.....	47	330	7,329	..	7,659
Roatan,.....	20	700	10,722	..	11,422
St. Kitts,.....	28	..	..	..	..
St. Lucia,.....	68	1,612	23,660	..	25,272
St. Vincent,.....	275	881	17,267	..	18,148
Tobago,.....	121	1,301	25,821	..	27,122
Tortola,.....	120	280	14,621	..	14,901
Trinidad,.....	20	477	6,188	..	6,965
Virgin-gorda,.....	1,970	4,201	41,083	..	45,284
II. Spanish.	15	..	..	..	..
Cuba,.....	43,380	311,051	106,494	286,942	704,487
Porto Rico,.....	3,865	162,311	127,287	34,240	57,086
III. French.					
Desirade,.....	16	..	..	95,609	127,668
Guadeloupe,.....	534	..	..	..	..
Mariegalante,.....	60	..	..	..	..
Saintes,.....	5	..	..	..	..
St. Martin's, N. part,	15	..	..	..	..
Martinique,.....	290	..	..	78,076	116,031
IV. Dutch.					
Curacao,.....	375	..	..	..	12,000
St. Eustatius,.....	10	..	..	..	18,000
Saba,.....	20	..	..	..	..
St. Martin's, S. part, ..	10	..	..	..	..
V. Danish.					
Santa Cruz,.....	80	2,500	1,200	30,300	34,000
St. John,.....	70	150	20	2,600	3,000
St. Thomas,.....	50	800	700	8,500	7,000
VI. Swedish.					
St. Bartholomew,.....	25	..	..	6,000	15,000
VII. Independent.					
Haiti,.....	29,400	..	500,000	..	600,000

CUBA, the largest and the finest of the West India Islands, is about 790 miles in length, with a breadth, throughout four-fifths of its length, not exceeding 50 miles. The length of its coast line is about 1800 miles, containing many good harbours, but the greater part of it is beset with shoals, reefs, keys, and rapid currents, which render the navigation difficult and dangerous. A chain of mountains runs through the length of the island; lofty in the east, but gradually decreasing towards the west, till they become slightly undulating hills, and rise with a gentle ascent only from 250 to 350 feet above the level of the sea. Altogether about four-fifths of the surface consist of low lands. Cuba was long considered by Spain merely in the light of a military key to her great possessions in the two Americas; the value of its produce did not equal that of some of the smallest of the Antilles; its commerce, restricted to the single port of the Havana, was insignificant; and, up to the close of last century, the money necessary for the support of its civil administration, and the payment of its garrisons, was drawn from Spain. But so rapid has been its progress in wealth and population during the last fifty years, that it is now one of the richest European colonies in any part of the world. A more liberal and protecting policy has been adopted by the mother country; the ports of the island have been thrown open; strangers have been encouraged to settle; and the island has become a place of general refuge. Negro slavery has increased enormously; and the condition of the slaves has been deteriorated just in proportion to the increasing wealth and the increasing rapacity of their masters. The great bulk of the population now consists of slaves in the lowest state of degradation. It is calculated that they are wrought out on an average of ten years, and that an annual importation of upwards of 70,000 is required to keep up their number. Though the African slave trade is prohibited by the mother country, yet the law is openly evaded, and the trade carried on as briskly as ever. The principal articles of export are sugar, rum, molasses, coffee, wax, tobacco and cigars, hides, honey, leather, cotton, fruits, and mahogany. The principal articles of import are, corn and grain of all kinds, dried fish and salt provisions, and lumber, chiefly from the United States; with cotton goods, hardware, and various other manufactured articles, and objects of luxury. The total value of the exports for the year 1836, amounted to 16,545,908 dollars or £3,309,181; and that of the imports, to 23,921,251 dollars or £4,784,230. Cuba is under the charge of a Captain-general, whose authority in military matters extends over all the island; but for civil affairs, the island is divided into two provinces, the western being under the Captain-general, and the eastern having an independent governor only responsible to the Home authorities. The military force consists of 30,000 regular troops and militia. Cuba is also divided into three military districts, whose names and principal towns are:—

*Districts.**Towns, with their Population.*

Western Department,	{ Havana, 112,000; Matanzas, 14,000; Jarues, 1000, Guanabacoa, 5000; Bata-
Population 408,536.	{ vana, 300; Guines, 3000; Santa-Clara, 200; Mariel, 800.
Central Department,	{ Puerto-Princepe, 49,000; Santa-Clara, 9000; Nuevitas, 800; St. Espiritu,
Population 164,497.	{ 11,000; Trinidad, 13,000; Remedios, 5000; Xagua, 800.
Eastern Department,	{ Santiago de Cuba, 27,000; Baracoa, 3000; Gibara, 300; Higuanay, 2000; Hol-
Population 131,435.	{ guin, 8000; Bayamo or San Salvador, 7500; Manzanillo, 3000.

Havana, the capital, situate on the north shore of the western department, is one of the largest and most flourishing cities in the New World. Its fine harbour, capable of containing a thousand ships, is strongly fortified; and there are besides extensive arsenals and dock-yards. The streets are generally narrow, crowded, and dirty; but the recently built suburbs are in a better style, and some of the churches are handsome. It still possesses about two-thirds of the trade of the island. The population in 1827 was 112,000, but has much increased since that time. The climate, however, is considered unhealthy. **Matanzas** also on the north coast, 60 miles E. of Havana, is now the second commercial town; it has a capacious and safe harbour, and 15,000 inhabitants. **Trinidad** is one of the most thriving towns on the south coast; its harbour is capacious but exposed, its trade considerable, and its population about 12,500. **Puerto-Princepe**, in the interior of the south-eastern part of the island, is a poor, and ill-built, but large town, with 30,000 inhabitants. **Nuevitas**, lately founded on the north coast, serves as its port. **Santiago** is one of the oldest and best built towns in the island. Near the western extremity of Cuba, on the south side, is the *Isla de Pinos*, about 30 miles in diameter, a mass of high rocks, forming a bold shore, and rising towards the centre to an elevation of more than 3000 feet. The mountains are covered with fine forests, but the population amounts only to about 3000.

PORTO RICO is about 180 miles in length, by 36 in breadth. It is traversed by a lofty mountain ridge, with rich and beautiful, well watered and well wooded valleys on each side, beneath which stretch fertile alluvial plains, studded with thriving towns. The principal productions are sugar, coffee, molasses, rum, and tobacco; the annual value of the exports is about 4,000,000 dollars; and that of the imports, 3,000,000. **San Juan de Porto Rico**, the capital, is a large and well-built town, on the north coast, with a safe, capacious, and strongly fortified harbour, and 30,000 inhabitants.

HAYTI (formerly *Hispaniola* and *San Domingo*), situate between Cuba and Porto Rico, is about 420 miles in length, by 150 in breadth. Several ranges of mountains cross the country, many of which are rugged and bare; others being less abrupt, are covered with forests of mahogany, dyewoods, and other valuable timber. Rich and beautiful valleys are interspersed among the mountains, and there are several extensive and fertile plains, which are watered by numerous rivers. The natural vegetable productions, and particularly the flora, are extremely rich. The principal useful products are; in the west and south, coffee, sugar-cane, and cotton; in the north, coffee; in the east, cattle, with some tobacco. The amount of the population is not known with any degree of certainty; the estimates vary from 360,000 to 1,000,000, but there seems to be no means of verifying any of them. About one-tenth of the whole are said to be coloured, that is, of mixed descent, there are also several hundred whites; but the great bulk are pure negroes. About four-fifths, comprising those in the western or French part of the island, speak a language composed of French and several African dialects; those of the eastern part speak a similarly corrupted Spanish. The people are generally ignorant, lazy, and superstitious, but good-natured and honest. The Roman Catholic is the established religion; but it is mixed with dogmas of African origin, and the priests are few. White people, of whatever nation, are prohibited by an article of the Constitution from acquiring or exercising any right of property or mastership in the island. The value of the exports in 1832 was about 4,000,000 dollars, and that of imports, 4,160,000. The government is nominally republican, but actually a military monarchy. The chief executive officer, the president, holds his office for life, and has the right of naming his successor, with the consent of the senate. He has also the sole right of proposing laws; the deliberations of the legislature being confined to the subjects which he lays before them. The Senate consists of 24 members, who are appointed for life by the House of Representatives, on the nomination of the president. The representatives themselves are chosen for the term of six years by the people, who take very little interest in the elections. The revenue amounts to about £300,000 a-year; the expenditure is usually more, and the treasury is burdened with a heavy debt, due to the expelled colonists. The army consists of 45,000 men, by some said to be badly armed and disciplined; by others, to consist of effective troops, bold, hardy, and fairly trained to arms. There is, besides, a national guard.

Port-au-Prince, the capital, is a town built of wood, with unpaved streets and 15,000 inhabitants, situate on the innermost recesses of the Bay of Gonaives, on the south-west coast. It carries on a considerable trade with the United States and Jamaica. **Cape Haytien**, a large well-built city, on the

north coast, with 10,000 inhabitants, has a fine harbour, and is fortified; the streets are paved, and the site is agreeable. *San Domingo*, the oldest existing European city in the new world, founded in 1502, was formerly a flourishing town; and its wide, straight streets, its fine cathedral, handsome churches and convents, its hospitals, barracks, arsenal, and neat dwelling houses, still attest its former splendour. It has a good harbour, and a considerable trade; population, 10,000. The west side of Hayti forms a deep bay, in the middle of which is the large island of *Gonave*. Near the west end of the north coast is the small island of *Tortuga*, noted in the history of the Buccaneers.

JAMAICA is the largest and most valuable of the British islands. Its greatest length is about 150 miles, with an average breadth of 40. The Blue mountains, a lofty range, run through the length of the island; sending down upwards of two hundred rivers and streams to water its fertile savannahs and fine valleys. On the coast there are sixteen well sheltered harbours, besides many roads and anchorages. The climate has been considered unfavourable to Europeans; but much less so to the negroes. But that it is not naturally injurious to the human constitution, is evident from the long lives and good health enjoyed by both Europeans and negroes who live temperately. Of late years, too, the yellow fever has almost if not quite disappeared. Jamaica presents every indication of being of volcanic origin, but it contains no active volcano. The soil is generally deep and fertile. The chief articles of production and export are sugar, rum, molasses, and pimento, of which last, in 1832, 4,672,827 lbs. were exported. The value of the imports, of late years, has generally averaged £1,600,000 a-year; but great part of them are only sent to Jamaica as an entrepot for subsequent exportation to the Spanish main. Jamaica is divided into three counties: Middlesex, in the centre; Surrey, in the east; and Cornwall, in the west; and these are subdivided into twenty-one parishes. The executive power is vested in a governor appointed by the Crown, with a council of 12 members, who are appointed in the same manner. The legislative power is vested in a House of Assembly of 45 members, 2 for each parish, and 1 for each of the towns of Kingston, Spanishtown, and Port-Royal. The military force consists of about 3000 regular troops, with a white militia of 16,000 or 18,000 men. There is a rector for each parish, under a Lord Bishop, whose see includes also Honduras and the Bahamas. Education is somewhat widely diffused. The public revenue and expenditure amount to about half a million a-year. The governor's salary is £5500 a year; the bishop's, £4000.

Kingston, the principal town, stands on the north side of a fine harbour, in a beautiful plain near the east end of the southern coast of the island. It has an extensive trade, and about 30,000 inhabitants. Two miles N. is *Up-park-Camp*, the only government barracks, about 200 feet above the level of the sea, with comfortable accommodation for 1300 European soldiers. *Santiago de la Vega* (St. James of the valley) or *Spanishtown*, the seat of government, is situate in a fine valley 16 miles west of Kingston, and contains 5000 inhabitants. *Port-Royal*, situate on the tongue of land at the entrance of Kingston harbour, once a splendid and opulent town, has been at several times almost completely destroyed by earthquakes and fires; it still contains the royal dockyard, and is strongly fortified. On the west side of the entrance to this harbour, and on a low neck of land, is the fortress called *Fort Augusta*, a healthy station, with well-ventilated barracks. *Stonyhill Barracks*, capable of containing 500 men, are situate on a mountain ridge, 2000 feet above the level of the sea, 9 miles north of Kingston. *Bluefields* and *Savanna la Mar*, in the western part of the island, are places of some trade. *Montego-bay*, on the north coast, is a considerable trading town, with 4000 inhabitants. *Falmouth* and *St. Ann* are villages on the same coast. The *Grand-Cayman*, the *Little-Cayman*, and *Cayman-braque*, three small islands to the north-west, are appendages to the government of Jamaica. *Grand Cayman* is the only one of them which is inhabited.

ST. CHRISTOPHER'S or ST. KITTS, is a long island, in shape resembling a guitar. In the interior of the northern part it is rugged and mountainous, its principal summit Mount Misery rising to the elevation of 3712 feet; but along the sea it contains a fine plain of great beauty and fertility. *Basseterre*, the capital, on the south-west coast, contains about 6000 inhabitants. The principal military station is *Brimstone Hill* on the west coast. *Neris* is a small but beautiful and fertile island, lying close to the southern extremity of St. Kitts, and consists of a single conical mountain rising 3000 feet above the level of the sea, with a border of level land, possessing a very fertile soil, which produces excellent sugar. The only town is Charlestown, a neatly-built place, with a good roadstead. *Anguilla*, or *Snake Island*, is low and level, and contains a valuable salt pond. The Virgin Islands, belonging to Britain, are *Tortola*, *Virgin-gorda* or *Penniston*, *Angada* or *Drowned Island*, the last of which is so low, that the sea sometimes breaks over it, and is surrounded by a dangerous reef. *Tortola* consists of a mountain mass, with a few tracts of flat ground along the shore, and has a town of the same name, on a fine harbour. All these are included in the government of St. Kitts.

ANTIGUA is tolerably level and well cultivated; a range of hills called the Sheckerly mountains, rises in the south and west, to the elevation of 1500 feet; but the only other irregularities of the surface are slight elevations, broken grounds, and a few water courses. The climate is healthy; but the island is subject to great droughts, and is deficient in springs and brooks. It is nevertheless a valuable island, and has a great number of excellent harbours; but, as it is almost surrounded by reefs and shoals, the approach is difficult except on the south-west. *St. John's*, the capital, on the north-west coast, is much admired for the beauty of its situation and its neat appearance. It contains about 16,000 inhabitants, and derives importance from its being the station of the Governor-General of the Leeward Islands. On the south coast is the important naval station of *English Harbour*, containing a royal dockyard. *Montserrat* derives its name from its rugged appearance, and is more noted for its picturesque beauty than for its productiveness. It consists of a mass of rocky hills diversified with valleys. Part of the coast is rendered inaccessible by coral reefs, and there is no harbour. *Plymouth*, a neat little town, is the capital.

DOMINICA is a large and fertile island, though some parts of it are very rugged. The valleys and plains are watered by about thirty rivers and numerous smaller streams. The island is of volcanic origin, and contains several Soufrieres or volcanic vents, which throw out sulphur. Sulphureous and thermal springs are also numerous. High mountains, considered to be the loftiest in the Antilles, occupy the central parts; their slopes are very steep, and terminate in bold and precipitous coasts. The climate is unhealthy. *Roseau* or *Charlottetown*, the capital, is a well built town, with 6000 inhabitants; but its roadstead is unsafe in the hurricane months. Prince Rupert's Bay, farther north, affords a roomy, deep, and safe harbour.

ST. LUCIA is a mountainous island, the high peaks of which at the south-west extremity, called Pitons by the French, and Sugar-loaves by the English, are visible at some distance, and form striking objects at sea. The range of hills to which the Pitons belong, contains an active volcano, the last eruption of which took place in 1812; but its crater, 4000 feet above the level of the sea, contains hollows filled with boiling water and mud. The soil is fertile, but the climate is moist, variable, and unhealthy. There are several good anchorages; and *Port Castries* or *Carenage*, is one of the best harbours in the West Indies. The town of the same name has a population of about 5000. The population of the island is French.

ST. VINCENT is the most beautiful of the Windward Islands. The mountains are bold and lofty, and the valleys highly productive. In 1812 the Soufriere, which had long been quiescent, threw out ashes and scorie, together with a stream of lava. The climate is exceedingly humid; but the island is nevertheless comparatively healthy. *Kingston*, the capital, is a neat town, with 7000 inhabitants. *Calliqua*, on the south side of the island, is a little village with a fine commodious harbour.

GRENADE has been styled the gem of the ocean; the mountains, though lofty, are not rugged; the valleys are fertile and picturesque; and its beautiful scenery has been compared to that of Italy. Its rivers are numerous but small, and the thermal springs and sulphur which abound prove its volcanic origin. There are several commodious harbours on the coast, that of St. George, on which stands the capital, is one of the best in the West Indies, and is strongly fortified. The town of St. George has 4000 inhabitants. The *Grenadines* or *Grenadillo*s are small islands lying between Grenada and St. Vincent; they consist of low rocks without water; but cotton and sugar are raised on some of them. *Carriacou* is the largest.

BARRADOES, the oldest and most improved of the British possessions in the West Indies, is the most easterly of the Windward Islands, and lies considerably out from their line, in the Atlantic, being more than 100 miles eastward from St. Vincent, the nearest of them. Its surface is generally level, the soil productive, and the climate healthy; but hurricanes are frequent and violent. A coral reef runs along the northern and eastern sides of the island, so that these coasts cannot be approached by vessels. The climate is more healthy than that of most of the other islands. *Bridgetown*, the capital, is one of the largest, gayest, and handsomest towns, and also one of the strongest military posts, in the West Indies. It has a population of 20,000; and its fine harbour is often touched at for refreshments. It stands on Carlisle Bay, on the south-west coast.

TOBAGO is a small but fruitful island to the north-east of Trinidad, beyond the track of the hurricanes, and enjoys a temperate climate. It is a mass of rocks rising with a steep ascent on the north-east, and descending gradually to the south-west, with some intervening small but delightful valleys. The coast abounds in fine bays, among which, on its north-western side, is Man-of-war's Bay, which is deep, capacious, and secure. *Scarborough*, the capital, has about 3000 inhabitants.

TRINIDAD was so called by Columbus, from the double circumstance of his having resolved to give that name to the first land he should discover on his third voyage, in 1498, and from the first land seen consisting of three mountains, which he considered an emblem of the Most Holy Trinity, in honour of which the name was given. It is separated from the continent of South America only by two straits, the Dragon's Mouth, 15 miles wide, and the Serpent's Mouth, 10 miles wide, which form the entrances to the Gulf of Paria, a large and always placid expanse of 5000 square miles of water, with anchorage throughout, on a bottom of mud and gravel, and receiving on its southern coast some of the branches of the river Orinoco. Trinidad is crossed from east to west by three ranges of hills, with intervening plains or savannahs; but, though extremely fertile and beautiful, and inferior in size only to Jamaica, the population is less than that of some of the smaller islands. The vegetation is remarkable for its richness and magnificence; and a pitch lake and mud volcanoes are among the curiosities of the island. The northern, eastern, and southern shores are nearly destitute of harbours. *Puerto de España* or *Port of Spain*, the capital, is a handsome town, finely situated on the west coast, and has about 12,000 inhabitants. *Naparima* has also a good harbour, and 2000 inhabitants.

With the exception of St. Lucia and Trinidad, the one of which is a French colony and the other Spanish, and both governed directly by the colonial secretary, without the intervention of a local legislature, each of the larger British West India islands has a governor, council, and assembly of its own. The Bahama islands have one assembly for the whole group; Anguilla has a deputy in the assembly of St. Kitts, and there is one council and assembly for the Virgin islands. Nevis and Montserrat have each a separate council and assembly, but are attached respectively to the governments of St. Kitts and Antigua.

The **FRENCH WEST INDIES** include the important islands of Martinique and Guadeloupe, with the smaller dependencies of Desirade or Desada, Mariegalante, Saintes, and the northern part of St. Martin. *Martinique* is a large and fine island lying between St. Lucia and St. Vincent; the centre rises into lofty volcanic mountains, from which copious streams descend to water the low grounds. Less than two-fifths of the surface is under cultivation, yet the island produces a great quantity of sugar, cotton, cocoa, and coffee. The capital is *Fort Royal*, a well-built and strongly fortified town, with 7000 inhabitants; but the most important commercial town is *St. Pierre*, which has a population of 18,000. Its excellent roadstead has rendered it the entrepot of the French trade with all this part of the world. *Guadeloupe* consists of two islands, separated by a narrow channel; the eastern, named *Grande-terre*, is low and comparatively arid; the western, named *Basse-terre*, contains some lofty heights, at the base of which are fruitful and well-watered plains. The town of *Basse-terre*, with a population of 5000, is the capital; but its roadstead is unsheltered. *Pointe à Pitre*, on the west side of *Grande-terre*, has a good harbour, and carries on almost all the trade of the island. Its population amounts to 15,000. The smaller islands are of little importance. They are hilly; and the *Saintes* consist of a little cluster of rocks which enclose a very safe harbour.

The Dutch islands are St. Eustatius and Saba, to the north of St. Kitts; and Curaçoa, Buenayre, and Oruba, on the coast of Venezuela. *Curaçoa*, the largest, is arid and unfertile; but was formerly important on account of its contraband trade with the Spanish colonies. Its capital, *Williamstadt*, has a fine harbour, with some trade, and about 8000 inhabitants. *Saba* contains no harbour. *St. Eustatius* is highly cultivated, and its town of the same name, with 6000 inhabitants, carries on an extensive smuggling trade. *St. Martin's* belongs partly to France and partly to Holland.

The **DANISH ISLANDS** of *Santa Cruz*, *St. Thomas*, and *St. John*, belong to the group of the Virgin Isles; but only *Santa Cruz* is of much importance. Its surface is a plain, diversified by slight undulations; and the soil is good and well cultivated. Sugar is the staple, but the island also produces some fine fruits, cotton, and provisions. Its capital, *Christianstadt*, has 5000 inhabitants. Nearly all the population of St. Thomas is contained in its capital, of the same name, which is an important smuggling station.

St. Bartholomew, to the north of St. Kitts, is the only Swedish possession in the West Indies. *Gustavia*, the capital, acquired some importance during the last continental wars, when it was the only neutral port in these seas.

Old Providence and *Santa Catalina*, two small islands dependent on New-Granada, 160 miles S.E. of Cape Gracias a Dios, on the Mosquito shore, have acquired notoriety as the haunt of the buccaneers, and some modern pirates. They are both very hilly, and present a great variety of beautiful scenery. The highest point of *Old Providence* rises 1190 feet above the level of the sea. To the north-east are the *Sernacays* or *Serranillas*, a mass of low sandstone; and to the south by east is the island of *St. Andrews*.

The **BERMUDAS** or **SOMERS' ISLANDS** are a group of seven or eight low islands, with several hundred rocks, far out in the Atlantic, about 600 miles east of South Carolina, in N. lat. 32° 20' and W. long. 64° 50'. They are estimated to contain about 20 square miles of surface; they enjoy an uninterrupted spring, and are covered with perpetual verdure; but they are of little value, except as a naval station; for which purpose large sums have been expended by the British Government in forming and fortifying a dock-yard. They contain some good harbours, which are, however, of difficult access. They have a house of Assembly of 36 members, chosen by the 9 parishes into which the islands are divided. *St. George's*, the capital, is a small town, with about 2000 inhabitants. The people possess about a hundred sail of small vessels, which are employed in the carrying trade between North America and the West Indies; and the whale fishery employs about 12 boats with their crews during three months of the year. There is great variety of fish among the reefs; and the islands abound with poultry of the

best kind, and produce peaches, oranges, grapes, melons, and figs, besides the ordinary tropical fruits. They were discovered in 1522, by Juan Bermudez, a Spaniard, from whom their common name is derived. In 1609, Sir George Somers, on his voyage to Virginia, was wrecked on them, from which circumstance they obtained their other but less usual name.

Off the coast of Brazil are the *Abrolhos*, a cluster of islets and banks, between 17° and 18° S. lat. The islands are low, and are covered with grass and a little scattered brushwood. They consist of gneiss and sandstone in horizontal strata, and their highest point rises about 100 feet above the level of the sea. *Fernando Noronha* is a small island used as a penal settlement by the Brazilian government, in S. lat. $3^{\circ} 52'$, and W. long. $32^{\circ} 25'$. *Martin Vaz* is a group of very small islands; and *Trindade* is a larger island, between 32° and 35° W. long., and about $20^{\circ} 30'$ S. lat. *St. Catherine's* is a considerable island close to the coast, between 27° and 28° S. lat., forming, inside, a good harbour and anchorage.

The **FALKLAND ISLANDS**, a group in the South Atlantic, occupied by Great Britain, but claimed by Buenos-Ayres. There are said to be so many as 200 islands; but only two of them are of considerable size. They are situate between 51° and $52^{\circ} 45'$ S. lat., and $57^{\circ} 20'$ and $61^{\circ} 46'$ W. long., about 250 miles N.E. of Tierra del Fuego. The islands are all of very irregular shape, and much indented with bays and inlets, and contain many excellent harbours. Between the two large islands is Falkland Sound, from 7 to 12 miles in width, and navigable for ships of any class. The shores are for the most part low; but in the western part of the group, there are many high precipitous cliffs, and ridges of rocky hills, about 1000 feet above the level of the sea. The highest hills, which are in the eastern large island, rise about 1700 feet. The climate is variable, though not quite so much so as that of England, and is said to be quite as healthy. Snow seldom lies long, and the frosts are slight; but the winds are violent and excessive. A small British garrison is stationed at *Port Louis*, at the head of Berkeley Sound, towards the north-east extremity of the eastern island. There are also a few Buenos-Ayreans and Europeans; and the islands are frequented by numbers of Americans, English, and French whalers and sealers.

TIERRA DEL FUEGO (Land of Fire) was the name given by the early Spanish navigators to the country which forms the southern side of the Strait of Magellan. Its coasts have been recently surveyed, and it has been found to consist of seven large, and many smaller islands and rocks, separated by channels of various widths. *Cape Horn*, the most southerly of the group, is a small island, rising 1870 feet above the level of the sea, in S. lat. $55^{\circ} 58' 40''$, and W. long. $67^{\circ} 16'$; and the eastern extremity is *Staten Island*, which forms the eastern side of the celebrated *Strait of Le Maire*. The southern and western parts of the tierra may be briefly described by saying, that deep but narrow arms of the sea intersect high mountainous islands, whose summits are covered with snow, while their steep and rocky shores are more than partially covered with evergreen wood. In the eastern portion the wooded mountains of the west sink into hills, and these again into level land, which is partially wooded. Throughout the year, cloudy weather, rain, and much wind prevail; fine days are rare; frost and snow are constant on the mountains; but near the level of the sea, neither the frost nor the snow is so severe as might be expected in so high a southern latitude, and in the vicinity of snow-covered mountains. The climate of the eastern portion is somewhat milder than that of the western. The country is thinly inhabited by the wretched Pecheres.

Along the west coast of Patagonia are innumerable islands and peninsulas, all much of the same character as the worst parts of Tierra del Fuego, forming the upper parts of a great range of mountains, whose bases are sunk in the ocean. They are barren to seaward, but impenetrably wooded towards the mainland; and are always drenched by incessant rain, which is never dried up by evaporation. Clouds, winds, and rain only cease during the very few days on which the wind is easterly or perhaps southerly. But the climate is mild, and the temperature is surprisingly uniform throughout the year. The principal of these islands are *Wellington*, *Cambridge*, *Adelaide*, *Hammer*, *Renel*, *Piazzi*, *Chatham*, *Madre de Dios* (God's Mother;) with the peninsulas of *Tuytas* and *Tresmontes*.

Chiloé is a large island, forming the most southern province of Chili, and the last inhabited part of the west coast of South America. It is about 120 miles in length by 40 in breadth; population of it and 36 adjacent islands, about 50,000. The island is mountainous and covered with wood; and the climate is healthy but damp. It feeds great herds of sheep, hogs, cattle, horses, and other animals; and the principal articles of export are planks, hams, brooms, hides, woollen cloths, &c., to the value of 25,000 dollars a-year. The chief towns are *San Carlos*, which is fortified, and has a population of 2000; *Castro*, and *Maulin*. To the southward extends the long *Chonos Archipelago*, the physical character of which is little better than that of the South Patagonian Islands. It is almost uninhabitable. Indeed, to the south of Chiloé there are very few acres of land capable of cultivation, and no place which is fit for the permanent abode of civilized man.

Mocha, a small island off the coast of Chili, in south lat. $34^{\circ} 19'$, is high, with deep water round it, but stragling and dangerous rocks lie near it towards the south-west. A few Chilenos live on it for the sake of catching seals on the rocks.

THE ISLANDS OF JUAN FERNANDEZ, discovered by a Spaniard of that name in 1563, consist of two principal and several smaller islands in the Pacific Ocean, 400 miles W. of the coast of Chili, in $33^{\circ} 40'$ S. lat. The larger island named *Mas-a-tierra* (nearest land), is from 10 to 12 miles long and 6 broad, elevated in the north; less lofty, but rocky and barren in the south. The fig and the vine flourish on the hill sides; and, among the larger trees, are the sandal, cork, and a species of palm called *chuta*, which bears a rich fruit. Goats are found in a wild state in the interior; seals, walruses, and crustacea, on the coasts. The island has been taken on lease from the Chilian government by an American, who has brought to it about 150 families of Tahitians, with the intention of cultivating it, so as to make it become the resort of whalers and other vessels navigating the Pacific. Off its south-west point is the small island of *Santa Clara* or *Goat Island*. The smaller island, named *Mas-a-fuera* (farthest out), is a lofty volcanic rock, 90 miles farther west. The highest mountain of *Mas-a-tierra* is 3000 feet, and the summit of *Mas-a-fuera* is 2300 feet, above the level of the sea.

The *Iles of St. Felix* are a small group, between 25° and 26° S. lat., and 79° and 81° W. long. The GALAPAGOS are a group of volcanic islands, situate under the equator, between 89° and 92° W. long. They are all of comparatively recent formation; and the lava is very hard, so that vegetation makes small progress. On five islands there are fertile spots, at one of which, on Charles's Island, a small colony has been established by the government of Guayaquil. There are six principal and seven smaller islands, besides many islets and rocks. The largest is 60 miles in length, and 15 broad; and its summit rises 1600 feet above the level of the sea. At first landing on their shores, dismal looking heaps of broken lava everywhere meet the eye, with innumerable crabs, hideous iguanas, and great elephant tortoises. The two latter species of animals are peculiar to the islands; and, indeed, it is from the last that the group derives its name of *Islas de los Galapagos* or Islands of Land Turtles.

The *Iles of Revillagigedo*, between 18° and 20° N. lat. and 109° and 115° W. long., west by south of Cape Corrientes in Mexico, are four in number, named *San Benedicto*, *Del Sacro*, *Roca-partida*, and *Santa Rosa*. They are almost in the same line of latitude with the volcanoes of Colima, Jorullo, Popocatepetl, and Orizaba; and pumice stones are found among them, proving them to be of volcanic origin. To the north-west is a small island named *Shelrock's*, about 200 miles south-west of Cape St. Lucas in California. *Clipperton's Island*, and *Gallego*, are two small islands between those of Revillagigedo and the Galapagos; the former in $10^{\circ} 20'$ N. lat., and the latter in $1^{\circ} 10'$ N.

Nootka, named also *Quadra* and *Vancouver's Island*, is a large island close on the coast of North America, to the north of the Columbia river, and crossed by the 50° N. lat. It is separated from the mainland by Queen Charlotte's Sound, and the Strait of Juan de Fuca. It contains about 30,000 square miles; is rocky and elevated, but no part of it attains any great height. The coast farther north is lined by a number of large islands, bearing the inappropriate names of *Queen Charlotte's*, *Prince of Wales's*, and such like.

THE ARCTIC POLAR REGIONS.

North America and the islands connected with it may be considered as terminating at Lancaster Sound, which extends about 500 miles westward, and forms a wide separation between them and the regions which constitute the northern and eastern sides of Baffin's Bay. The country immediately adjoining Lancaster Sound, consist of a number of large islands or peninsulas, separated by wide straits; but towards Baffin's Bay it has of late been found to be a continuous mass of land, extending northward to Sir Thomas Smith's Sound, which forms the north-western limit of Greenland. This land has been called *North Devon*, and the islands to the westward, *Parry's Islands*; the most westerly of them yet known being *Melville Island*, where Captain Parry wintered in 1819-20. The shores consist of steep rocks, while the interior is occupied by mountains always covered with snow. North Devon seems to be uninhabited; but Parry's Islands contain a few families of Esquimaux.

GREENLAND appears to form one continuous mass of land, extending along the eastern side of Baffin's Bay, from Cape Farewell, in 60° N. lat., to Smith's Sound, in 78° , more than 1200 miles; and expanding in width from Cape Farewell to the most northerly part known, where the breadth exceeds 600 miles. It is a barren mountainous country, nearly the whole surface of which is covered with perpetual ice and snow; which in many parts form glaciers extending to the very shores, where they appear as icy cliffs, several hundred feet high. The eastern coast generally rises in high masses of rock or ice, close to the shore, and is beset during the whole year with enormous masses of ice, which render the vegetation exceedingly scanty, and the fishing very precarious. Accordingly, only a few Esquimaux inhabit it. The western shores are high, rugged, and barren, but are indented by deep inlets, some of which penetrate 100 miles, and on the sheltered low grounds along their banks there is some vegetation; the sea being less encumbered with ice than on the east coast, the inhabitants are able to prosecute, for a considerable period during summer, the fisheries, on the produce of which they subsist. The climate is also less severe, though the ground does not begin to thaw till the end of June; but in July the thermometer rises to 92° . The atmosphere is pure, light, and healthy; but in winter the cold is sometimes very intense. The vegetation in the northern districts consists of lichens and mosses; but, farther south, there are a few annual plants, and some berry-bearing shrubs. In well-sheltered valleys birch and mountain-ash grow to the height of a man, with a stem three or four inches thick. Potatoes, and a few other culinary vegetables, are raised; and a few sheep are kept by the European settlers. Rein-deer, hares, foxes, and white bears, are the only wild animals; and the only domestic animal possessed by the natives is the dog, which they use for drawing sledges. Sea-fowl and fish, especially cod and caplin, are plentiful; but seals supply the most essential wants of the natives, with their fur, skins, and oil. The inhabitants are Esquimaux, who live on the west coast, as far north as 77° N. lat. and on the east coast to 76° . Their principal occupations are fishing and seal-hunting; they are under the dominion of Denmark, forming 13 colonies, with 15 minor commercial and 10 missionary establishments; the most northern station is *Upper-narvic* in N. lat. $72^{\circ} 30'$. Many of the people have embraced Christianity, and are becoming somewhat civilized; though the circumstances in which they are placed must ever operate as a bar to their great improvement. The trade between Greenland and Denmark employs five or six vessels. The exports consist chiefly of whale oil, seal, bear, and rein-deer skins, elder down, &c. Coffee, tobacco, snuff, and brandy, are the principal articles of import. The total population is estimated at between 6000 and 7000 Esquimaux, and 150 Danes or other Europeans.

BAFFIN'S BAY, and DAVIS' STRAIT, which divide Greenland from America, extend in the direction of N. by W. from the North Atlantic Ocean, for 1300 miles, with a breadth varying from 160, at the narrowest part of Davis' Strait, under the Arctic Circle, to about 300 miles, opposite Lancaster Sound. This great sea is navigable only in June, July, August, and September; navigation during the rest of the year being rendered impossible by icebergs. It is of great but variable depth, with a muddy bottom. There are strong currents which set towards the south in Davis' Strait, but in the upper part of the bay they seem to run north. Indeed, it is said that a strong current sets in from the ocean round Cape Farewell, and continues along the eastern coast to N. lat. 67° , where it crosses over to Cape Walsingham, and thence flows southward along the western shores of the bay, and those of Labrador and Newfoundland. The black whale is very abundant in these seas, on which account they are visited every summer by a great number of whaling vessels, which, since Captain Parry showed them the way, even cross the Bay and penetrate Lancaster Sound. Davis' Strait was discovered by John Davis in 1596; Baffin's Bay, by Robert Bylot and William Baffin in 1616; but it was not till the summer of 1818 that they were again followed in their track round the bay. The seas are remarkably free from islands and rocks. The largest is *Disco Island*, on the east coast, in 70° N. lat.; and *Hare or Waygatt Isle*, a little farther north, has acquired some celebrity, as the place where experiments have been made with the pendulum to ascertain the figure of the Earth.

The SPITZBERGEN (Pointed Mountains) are a group of four large and many smaller islands in the Arctic Ocean, to the eastward of Greenland, between N. lat 76° and 81° , and 7° and 27° E. long. Their shores are no where flat; but, on the contrary, in every direction, consist of conical mountains which rise abruptly from the sea to an elevation of between 1500 and 3700 feet, being separated by narrow valleys, which generally open to the sea, and are all occupied by glaciers. In summer, streams of water flow from some of them, and form cascades; but, in general, the glaciers are covered with snow all the year. Not a plant deserving the name of tree or shrub enlivens the desolate scene; and of the 47 species of plants which the country produces, most are mosses and lichens. The arctic fox is the most common quadruped; but there are also white bears, rein-deer, and numerous sea-fowl. The surrounding seas teem with life; with whales, seals, walrus, cod, ling, herring, torsk, and skate; but the most abundant marine animals are of the molluscous and crustaceous classes. The climate is intensely cold; but the atmosphere is pure and dry, and so serene and refractive, that objects are clearly seen through it at vast distances. The dominion is claimed by Russia, and a few Russian hunters continue on the islands, even during winter, to pursue the seal and the walrus. To the southwest of Spitzbergen, nearer the coast of Greenland, is the rocky island of *Jan Mayen*, which rises to an elevation of 7000 feet above the level of the sea, and contains an active volcano.

OCEANICA OR OCEANIA.

THIS name has been employed by the French geographers, and adopted by those of other nations, to include the innumerable islands scattered over the great ocean which extends from the south-eastern shores of Asia to the western coast of America. From Asia, Oceania is separated by the Gulf of Martaban, the Strait of Malacca, the Chinese Sea, the Channel of Formosa, and the sea to the south and east of Japan; and from America, by the wide expanse of ocean, which is free of islands, between the western shores of that continent, and the most easterly parts of Polynesia. Oceania may be divided into three distinct portions, which we shall treat of separately, under the names of *Malaysia* or *Malaisia*; *Australasia*; and *Polynesia*.

I. MALAYSIA.

GENERAL DESCRIPTION.—Malaysia includes the numerous islands immediately adjoining the south-eastern coasts of Asia, to which they have been hitherto usually considered as an appendage, under the name of the *Indian Archipelago*. The group has been named *Malaysia* from the circumstance, that almost without exception people of the Malay race possess the coasts, at least, of all the large islands, and are, indeed, the dominant race of the archipelago. It is situate between $12^{\circ} 40'$ S., and 20° N. lat., and 92° and 134° E. long. The archipelago is arranged into groups and chains of islands, which, being thickly strewed, form numerous straits and passages, the intricacy of which would render the navigation dangerous, were not the seas distinguished beyond all others, by the proximity of large tracts of land, by their pacific character, and by the uniformity of the prevailing winds and currents. The whole of Malaysia is situate within the tropics. There is accordingly a great uniformity of climate, of animal and vegetable productions, and in the character of its inhabitants. It possesses the common characteristics of other tropical countries; heat, moisture, and luxuriant vegetation. The islands are throughout of a mountainous nature, and the archipelago is traversed by several great lines of volcanic action. From Luzon, where there are three active volcanoes, one line extends through Mindanao, Sanguir, the north-eastern extremity of Celebes, Gilolo, and the Moluccas, where it is met by two other great volcanic lines, the one of which extends east and west from Barren Island in the Gulf of Martaban, through Sumatra, Java, Bali, Lombok, Sumbawa, Sandelwood, and others, and the other stretches through Borneo, Celebes, Banda, with New Guinea, New Britain, New Ireland, and various other islands of Polynesia. The islands contain few plains, and no arid deserts. Where not cultivated, they are generally covered with forests of stupendous trees. They are distinguished from every other group of islands in the world, by the presence of periodical winds; and from all countries whatever by the peculiar character of these. If not the most extensive, Malaysia is at least the most widely spread region, and the region of the most curious and various productions in the immediate neighbourhood of the equator. The insularity of the region, the contiguity of the islands, and the facility and rapidity of the navigation, are also prominent and characteristic features. The animal and vegetable productions either differ wholly from those of other countries, or consist of important varieties of them; and the productions of the intervening seas are not less remarkable for their abundance and variety than those of the land.

Though there is much diversity in the physical character of the islands and their inhabitants, the whole are capable of being classed under five natural divisions. Beginning from the west, the first division comprehends Sumatra, Java, Bali, Lombok, and about two-thirds of the western portion of Borneo, as far as 116° E. long. The animal and vegetable productions of this division are peculiar, and have a higher character of utility than those of the other divisions; the soil is more fertile, and better suited for rearing vegetable food of the highest quality. The civilized inhabitants have a general similarity in manners, language, and political institutions; they

are much more civilized than those of the other divisions, and have made considerable progress in arts, arms, and letters. Rice is their principal food, and is generally abundant. Celebes is the centre of the second grand division, which comprehends, besides that great island, the smaller islands on its coast, as Boutong and Salayer, the whole chain of islands from 116° to 124° E. long., with the east coast of Borneo up to 3° N. lat. The animal and vegetable productions have generally a peculiar character; the soil is less fertile than that of the first division, and less adapted for producing rice or other grain of the first quality. The civilized inhabitants have made considerable progress in the useful arts, but their civilization is of an inferior kind to that of the first division. In language, manners, and political institutions, there is a surprising similarity among them, but they differ widely from their western neighbours. Rice is their principal food, but is not abundant, and sago is occasionally used. The third division, which extends from 124° to 130° E. long., and from S. lat. 10° to N. lat. 2° , differs remarkably from all the rest. The character of the monsoons is here reversed. The eastern monsoon, which is dry and moderate to the west, is here rainy and boisterous; the western monsoon, which is rough and wet in the first two divisions, is here dry and temperate. The greater number of the plants and animals of the first two divisions disappear in the third, which possesses remarkable productions of its own, unknown in any other part of the world. This is the native country of the clove and the nutmeg, and the only region that produces them in perfection. For raising the higher kinds of vegetable food the soil is less suited. Rice is scarcely produced at all, and the staple food of the people is sago. In language, manners, and institutions, the people agree among themselves, but differ essentially from their neighbours. They are far inferior in knowledge, skill, and civilization, to the people of the first two divisions; and have never acquired the use of letters. The fourth division is the least distinctly characterized; but it is nevertheless marked by points of dissimilitude sufficiently striking to entitle it to be considered separately. It extends from 116° to 128° E. long. and from 4° to 10° N. lat., including the north-eastern corner of Borneo, the large island of Mindanao, and the Sooloo archipelago. The clove and the nutmeg are indigenous, but of inferior quality; sago is much used, but rice is the principal food of the inhabitants. In civilization the people are superior to those of the third division, but inferior to those of the first and second. Their language, manners, and institutions are peculiar, agreeing with each other, but differing from those of all their neighbours. The fifth division is the well known group of the Philippines, which extend from 10° to 15° N. lat. A geographical position so different from that of all the other countries of Malaysia occasions much difference of climate and natural productions. It is the only portion of Malaysia within the region of hurricanes, and this circumstance alone gives a peculiar character to the country. The soil is of eminent fertility. It is particularly favourable to the growth of tobacco and the sugarcane, but does not produce the pepper of the first division, the spices of the third, nor the delicate and peculiar fruits which characterize the islands within 10° of the equator, and are unknown to all other regions of the earth. The manners, customs, and institutions, and, above all, the language of the people, differ from those of the inhabitants of all the other divisions. Rice is the food of the more civilized races.

PEOPLE.—These distinctive features have necessarily produced the most extensive influence on the character and civilization of the inhabitants. The most abject races only, those secluded from the sea, are hunters; there are no pastoral tribes; and all migrations are made by water. Their boats and canoes are to the Malays what the horse and the camel are to the Tartars and the Arabs; the people are by necessity navigators and fishermen, and from this condition the progress of civilization among them is to be traced. Predatory warfare is the only kind suited to their genius.

The inhabitants consist of two perfectly distinct races; the one fair or brown coloured, with lank hair; the other black or sooty coloured, with woolly or frizzled hair. The brown coloured tribes agree so remarkably in appearance with each other, that one general description will suffice for all; and the varieties may generally be considered as objects of curious rather than of useful distinction. Their persons are short, squat, and robust. Their medium height may be reckoned, for the men, about five feet two inches, and for the women, about three inches less. Their complexion is generally brown, but varies a little in different tribes; neither the climate nor the habits of the people seem to have any effect upon it. The fairest races are generally towards the west, and some of them, as the Battas of Sumatra, are under the very equator. The Javanese, who live the most comfortably, are among

the darkest people of this race; while the wretched Dayaks or cannibals of Borneo, are among the fairest. The hair of the head is long, lank, harsh, and always black; on every other part of the body the hair is scanty; the beard in particular is very defective. The Mahometan priests among them are fond of wearing beards, but the utmost they can obtain by great care and assiduous culture, is a few straggling hairs, which only serve to make them ridiculous. The rest of the community pluck out what no pains would render respectable. Compared with Europeans, Arabs, Persians, Tartars, Burmans, and Siamese, they may be considered as an ill-looking race. They most resemble in person and complexion the people of Siam and Ava; but nevertheless differ essentially from these, and are, in short, a distinct race, maintaining among themselves a remarkable congruity, but are, at the same time, very unlike any other people. Their standard of perfection in colour is virgin gold; but their complexion is scarcely ever clear, and a blush is hardly at any time discernible in it. This circumstance, however, distinguishes them from Europeans more than from Asiatics.

The Pua-puas, Papuas, or woolly-haired race, resemble dwarfish African negroes. Mr. Crawford says that he never saw any of them whose stature exceeded five feet, and he has seen full-grown men of only four feet nine inches. Besides their short stature they have spare and puny frames; and their complexion is of a sooty colour. Sir Everard Home draws the following distinction between them and Africans:—"The skin (of the Pua-pua) is of a lighter colour; the woolly hair grows in small tufts, and each hair has a spiral twist. The forehead rises higher, and the hind head is not so much cut off. The nose projects more from the face. The upper lip is longer and more prominent. The lower lip projects forward from the lower jaw to such an extent that the chin forms no part of the face, the lower part of which is formed by the mouth. The buttocks are so much lower than in the African negro as to form a striking mark of distinction; but the calf of the leg is as high as in the African. It is only, indeed, in the mere exterior stamp that the puny negro of Malaysia bears any resemblance to the African, who, in vigour of frame, and capacity for endurance, is superior to all the Asiatic and American races. The Pua-puas are evidently a distinct variety of the human species, and a very inferior one. Their puny stature and feeble frames cannot be ascribed to the poverty of their food, or the hardships of their condition; for the brown races, who live under circumstances equally precarious, have vigorous constitutions. Some islands, indeed, they enjoy almost exclusively to themselves, yet they have in no instance risen above the most abject state of barbarism. Whenever they come in contact with the fair race, they are hunted down like wild beasts, and driven to the natural fastnesses of the mountains. Those of them, however, who inhabit New Guinea and the islands to the eastward, though hideous in appearance, are said to be robust men of a shining black complexion."

The question of the first origin of both of these races appears to Mr. Crawford to be one far beyond the compass of human reason. "By very superficial observers," he says, "the one has been supposed a colony from Africa, and the other an emigration from Tartary. Either hypothesis is too absurd to bear the slightest touch of examination. Not to say that each race is radically distinct from the stock from which it is imagined to have proceeded; the physical state of the globe, the nature of man, and all that we know of his history, must be overturned to render these violent suppositions possible."—(*Hist. Ind. Archipelago*, I. 27.)

Such was the result of Mr. Crawford's inquiries; but later and more minute researches have established the existence of a third race of Malaysians, as black as the Papuas, or nearly so, but with straight or lank hair, and different features, sometimes resembling those of the Hindoos. They seem, however, generally to be of the same lineage and physical character as the Australians, and to be the aborigines, or oldest known inhabitants of the larger islands. They are every where extremely barbarous; and, where not reduced to slavery, the different tribes retain a general similarity in their habits of life. They are termed *Afoursous*, *Arafuras*, *Araforas*, or *Haraforas*, and speak a great variety of languages. They are found in New Guinea, the Moluccas, Celebes, and the Philippines; the barbarous people of the interior of Borneo belong, in part at least, to the same race; and the savages of the interior of Sumatra are probably a tribe of the same description.

For a people below the middle size of Europeans, and living almost solely on vegetable food, the brown Malaysians are strong and athletic; not agile and active, but persevering. They are uncleanly in their habits and persons, but temperate and even abstemious in their diet. They may be considered industrious or indolent in proportion to their degree of civilization or barbarity. Wherever they enjoy tran-

quillity and security they are found to be industrious like other people in the same circumstances. Their frames are suited to the climate they live in; they have no constitutional listlessness or apathy; and, whenever they have a reasonable prospect of advantage, they labour with vigour and perseverance. But, as civilization among even the most improved is but in an early stage, and even their best forms of government are wretched, and confer little security of person or property, their character feels the influence, and they may all be pronounced an indolent race, many of them approaching to listlessness and apathy. They are gifted with a large portion of fortitude, but their courage consists rather in suffering with patience, than in braving danger. With respect to their intellectual faculties, they may be pronounced slow of comprehension, but of sound, though contracted judgment. In quickness, acuteness, and comprehensiveness of understanding, they come far short of the civilized nations of Europe, and in subtlety they are not less inferior to the Hindoos and the Chinese. Their weakness of reason and pruriency of imagination make them wonderfully credulous and superstitious. But though their faculties are feeble, they are not perverted by false impressions, nor distorted and diseased by the influence of false refinement and erroneous education, like those of most of the Asiatic nations; while they possess an abundant share of laudable curiosity, with an anxious desire for knowledge. They are also honourably distinguished from the Asiatics by a regard for truth; they have no capacity for intrigue, and have never been known at any time to pursue those dexterous expedients, and cunning practices, in which the whole lives of some Asiatics are so frequently spent. They are capable of attachment, gratitude, and fidelity; are grave, reserved, cautious, courteous, and obsequious; but neither litigious, avaricious, nor rapacious, though sufficiently tenacious of their rights. They are not cruel and unfeeling; in their legal punishments there are no symptoms of refined cruelty, the origin of which can be traced to their own manners; they are good-humoured and cheerful to a remarkable degree, and very slightly irascible; and hospitality is almost universally practised. But, on the other hand, the absence of public security, and of a regular administration of justice, leaves in a great measure in the hands of private persons the power of avenging injuries; and, accordingly, every man has arms in his hands. The point of honour is, in consequence, often as much observed by the peasant of Malaysia, as by French or English gentlemen. In their demeanour there is a large share of natural politeness; among the more scrupulous, a contemptuous or haughty manner, still less an abusive expression, or a blow, will not be tolerated for a moment; the kris is ever at hand ready to avenge the insult. Every man knows this, and the consequence is a guarded demeanour and a universal politeness. All the tribes of the Archipelago pride themselves in this, and never suffer an indignity even to a stranger who could not defend himself. They are neither bigoted nor intolerant, with respect to any class of opinions or practices, whether civil or religious. They bear no rancour towards strangers, but readily tolerate their peculiar manners, customs, and forms of religion. They are, however, simple, credulous, and superstitious; it would require a volume, says Mr. Crawford, to describe all the forms under which these weaknesses are displayed. They believe in dreams, omens, lucky and unlucky days, casting of nativities, supernatural endowments, invulnerability, sorcery, enchantments, charms, filtres, and relics. There is not a forest, a mountain, a rock, or a cave, that is not supposed to be the habitation of some invisible being; and, not content with their own stock of these, their comprehensive faith has admitted the deities of Western India, Arabia, and Persia. These superstitions are generally harmless; though, at times, their delusions operate in the most formidable manner. But over all their good qualities and weaknesses, revenge, the vice of all barbarians, is predominant. They can hardly forgive an injury, and are capable of harbouring the longest and most deeply-rooted resentment; and in seeking to gratify this feeling, they sometimes break out into those fits of furious madness, which have become proverbial under the name of *muck*, where the madman assails all who come in his way till he is himself cut down. Another vice, incident to their state of society, is a disregard for human life. They live in a state of turbulence and anarchy; the power of the law is scarcely felt; death is familiar to them; and the great body of them are in such a state of degradation, that life is neither valued nor valuable; every man's life has its price, and that not a very high one; murders and assassinations are common. In their social and domestic state, thefts and robberies are extremely frequent; but these crimes are generally perpetrated only by the meanest and most abandoned of the people; and even the common peasantry are remarkable, more generally for honesty and fidelity than for the opposite vices. But, in their intercourse with strangers and enemies, the treachery of the Malaysian character is fully displayed. Of all the people of the East, with

whom Europeans have had an extensive commercial intercourse, the Malaysians are by far the most uncivilized and barbarous. The singular value of the productions of their country, and its peculiar convenience for trade, have occasioned an extent of intercourse scarcely compatible with their state of civilization; the results of which are those acts of piracy and other lawless attacks on the property of strangers, which are insiduously perpetrated in accordance with the aggressive spirit of all people in such a state of society. Among a hundred nations of independent barbarians, the plunder of the stranger and the traveller are no more looked upon as crimes, than among the Arabs; while, on the other hand, as among the latter people, the same stranger, if destitute and forlorn, would find an hospitable reception.

Marriage is universally observed; and the lot of the women may, on the whole, be considered as more fortunate than in any other country of the East. They are, in general, not immured at all; and when they are secluded, the seclusion is but partial, and is free from that jealous restraint which has become proverbial with Asiatic manners. The husband invariably pays a price for his wife; but nevertheless women are not treated with contempt or disdain. They eat with the men, and associate with them in all respects on such terms of equality as are surprising in that state of society; and this equality is most thoroughly recognised among the most warlike tribes; women are frequently raised to the throne, and the practice is most frequent where the society is most turbulent. Polygamy and concubinage are tolerated; but may be looked upon rather as a vicious luxury of the great, than as a general practice. With respect to female purity there is the greatest difference of manners and opinions among them, some of the tribes being very lax, while others are the reverse; though jealousy cannot be said to be a vice belonging to any of them.

With respect to the amount of the population of Malaysia there are no data upon which any estimate can be formed. M. Balbi has arranged the Malaysians according to their languages, as in the following table:—

The JAVANESE, who seem to be the most numerous, as they form two-thirds of the population of Java, may be regarded as the most polished people of Oceania, while their literature is the richest and most important. They have been at three different epochs the preponderant nation of Malaysia: the first of which was towards the second half of the fourteenth century, when the empire of Majapahit embraced almost the whole of Java, the kingdom of Palembang in Sumatra, the island of Bali, and the petty states in the southern part of Borneo; the second, in the first half of the fifteenth century, when their dominion extended not only over all Java, but also over Sabrang, Goa, Macassar, and others in Celebes, Banda, Sumbawa, Ende, Timor, Soeloe, Ceram, a part of Borneo, and Palembang in Sumatra; and the third, in the first half of the seventeenth century, when the empire of Mataram nearly equalled that of Majapahit. The intellectual character of the Javanese ranks lower than that of almost any other people who have made equal progress in external circumstances, and their literature, like their religion, is almost entirely derived from Southern Asia, and exists in a very low and precarious state.

The *Mountaineers* of Bantam, Batavia, Buitenzorg, Preangan, and Cheribon, occupy a large portion of that part of Java named *Sunda* by the natives.

The *Islanders of Bali* are among the most polished people of Oceania, although without an indigenous literature. Their religion and institutions are a faithful representation of those which formerly prevailed over all Malaysia, and particularly at the court of Majapahit.

The *Malays* occupy the late empire of Menangkaboo, Siak, Palembang, and other parts of Sumatra; the islands of Lingen and Bintan, the greater part of the coasts of Borneo and the Moluccas, and the chain of islands extending from Sumbawa to Timor. They possess a literature as rich as that of the Javanese, though less original. Besides the empire of Menangkaboo, which comprised the greater part of Sumatra, this people possessed another empire not less powerful and more celebrated, that of Malacca, which, towards the end of the 14th century, under the brilliant reign of the Sultan Mohammed Shah, comprised nearly the whole coasts of the Malay peninsula, the islands of Lingen and Bintan, and the districts of Camgar and Arou in Sumatra.

The *Battaks* or *Battas*, who are found in Sumatra, present perhaps the most extraordinary mixture of civilized and barbarous, or rather ferocious manners. For a long time they have written their language in a peculiar character; the greater part of them are able to read and write, and they possess an original literature, rich, though little known. They have a code of laws of high antiquity; but, from respect to these laws and to the institutions of their ancestors, they are still cannibals. This code condemns to be eaten alive—1. Those who are guilty of adultery; 2. Those who commit a theft under night; 3. Prisoners taken in important wars, that is to say, in the wars of one district against another; 4. Those of the same tribe who intermarry, a practice strictly forbidden; 5. Those who treacherously attack a village, a house, or a person. Whoever commits one of these crimes is judged and condemned by a competent tribunal; the prisoner is then tied to a post, cut in pieces, and eaten by the people. But men only partake of the feast; the eating of human flesh is forbidden to women. However revolting these executions may be, they are nevertheless the result of the calmest deliberations, and are seldom the effect of immediate or private vengeance, except perhaps in the case of prisoners of war. They were formerly also in the habit of eating their parents when these became too old to work; but this practice has long ceased. It is calculated that the number of people eaten in time of peace is from 60 to 100 yearly.

The *Achinese*, who possess the northern part of Sumatra, were, during the 16th and 17th centuries, the predominant people of Malaysia, being in alliance with almost all the commercial nations from Japan to Arabia, and comprising under their dominion considerable portions of Sumatra and Malaya. Although fallen from their ancient importance the Achinese are still much devoted to commerce and navigation.

The *Binau*, who occupy the greater part of Sumbawa, and are a somewhat polished people. The *Bellus* and the *Wakenos* divide between them the greater part of Timor.

The *Bugis* or *Bugis* Booghoze are the most powerful people of Celebes, and the most commercial nation of Malaysia, forming the crews of almost all the trading prahus. They possess a native literature, and are considered as the original stock of both the Malays and the Javanese.

The *Macassars* or *Mangkasara* occupy the south-western peninsula of Celebes, and were at one time the principal maritime people of Malaysia. They possess a native literature, but it is less rich than that of the Bugis.

The *Turajas* possess the middle part of Celebes, of which they seem to be the most ancient inhabitants. They are also called *Alfourous* by some voyagers; and are by some writers considered to be the original stock which has peopled Polynesia.

The *Biajos*, a numerous, warlike, and industrious people, possess a portion of the interior of Borneo. They are cannibals, and extremely ferocious.

The *Danaks* of Borneo appear to be identical with the *Haraforos* and *Idans* of the interior of that great island. Their features, manners, customs, language, and religious faith present the most intimate and incontestible relations with the physical and moral characteristics, not only of the people who inhabit the interior of the larger islands of the Philippines, the Moluccas, and Celebes, but also of many of the natives of Polynesia. But very little is yet known concerning them, or of their origin and affinities.

The *Tayales* occupy the greater part of Luzon. They possess a peculiar alphabet; but their literature consists chiefly of translations of Spanish works.

The *Iloros* inhabit the province of that name in the island of Luzon.

The *Bissayos* inhabit the islands of Samar, Leyte, Zebu, Calamines, Mindoro, Masbate, Panay, Ticao, Burias, and others of the Philippines.

The *Sooloos* possess the archipelago of that name; and are famed as pirates. The *Mindanaoese* are the principal people of the island of that name.

RELIGION.—Islam is the religion professed by the Javanese, Malays, Achinese, Bugis, Macassars, Sooloos, the people of the Moluccas, the Mindanaoese, and Ilanos in the island of Mindanao, the greater part of the people of Samar and Leyte, and by some tribes of Lampongs and Rejangs in Sumatra, with some of the Haraforos of Borneo and the Moluccas. Christianity is professed by a considerable number of people: Catholicism, by the Spanish subjects in the Philippines, the people of Timor subject to the Portuguese, and several others in Sabrao, Flores, and others of the southern chain of islands; and Calvinism, by a great number of the people of the Moluccas, particularly in Amboyna, and other Dutch settlements. Buddhism is professed by the Chinese, who are found in great numbers at Batavia and other parts of Malaysia, and by a portion of the people of Bali; Brahminism, by the greater part of the people of Bali and Madura, and by the Kelangs, a petty tribe in Java. The religion of the Battas in Sumatra acknowledges a sort of Trinity, a paradise, and a hell; and several of its dogmas, with some of the names of its subordinate deities, seem to be of Indian origin. Nothing is known of the religion of the Haraforos of Mindanao, but that they have temples and priests, and practise augury. The Rejangs of Sumatra, who have no form of worship, believe in the metempsychosis. The religion of several of the independent tribes of Luzon, and others of the Philippines, consists in the adoration of good and evil spirits, and though they have no temples, altars, or idols, they have nevertheless priestesses, sacrifices, and sorcerers.

GOVERNMENT.—The forms of government exhibit every shade and variety, from that of isolated families living without laws or magistrates, to that extremity of despotism which characterizes the monarchies of Java. The most of the civilized inhabitants of Celebes, Sumatra, Borneo, and Mindanao, are governed by elective kings, who have very little authority. The government of Achcen, in Sumatra, fluctuates continually between anarchy and despotism; that of the Shushunan or emperor of Surakarta, and of the Sultan of Djocjocarta, was lately despotic, the power of these sovereigns being only limited by certain national customs; one of which is, that each village, with its district, forms a sort of body politic, governed by its chief, who is elected by the people. During the first century of Mahometanism in Java, the moslem priests formed a real hierarchy, which possessed the prerogative of choosing the sovereign; but of this they were deprived by the powerful family of Mataram, which rendered the throne hereditary. The throne of Soorloo is hereditary, but the Sultan's authority is limited by that of the datus or hereditary nobles, who form a council of state; by the Maharajah-lelah, who is a sort of censor, charged with watching the conduct of both the Sultan and the datus; and by the Orang-kai-mallik, a sort of tribune of the people, whose duty it is to defend their rights. All the states of Celebes may be considered as aristocratic republics, where the sovereign power resides in an hereditary nobility, who choose, and may even depose the king, to whom they allow very little authority. The only foreign powers who have possessions in Malaysia are the Dutch, the Spaniards, and the Portuguese. The Dutch possess, or domineer over, the whole of Java, and the greater part of Sumatra, where they are continually extending their dominion over the native states. They possess also the Molucca islands, and generally exercise a predominant influence over all the southern portion of the Archipelago. The Spaniards possess the island of Luzon, and several other portions of the Philippine group. The Portuguese possess only a portion of the island of Timor.

INDUSTRY.—With respect to industry, the Malaysians present the most marked

differences. While the negro races every where live in the forests among the ourang-outangs, in almost total ignorance of the arts and trades which are most indispensable to society, the numerous tribes of the brown race have generally reached a certain degree of civilization, and the most advanced among them have applied themselves with great success to agriculture, navigation, fishing, and even, in some places, to the working of mines. The people of Celebes, the Bugis, the Rejangs, the Javanese, the Illocs, the Camarinas, and the Malays, are excellent weavers. Several of them also shew great dexterity in the working of jewellery, gold and silver ornaments, and particularly in filagree, in the last of which the people of Manado, the Achinese, the Menangaboos, the Rejangs, and the people of Padang, in Sumatra, particularly excel. The Malays of Borneo and the Javanese are acquainted with the art of cutting and polishing the diamond and other precious stones; and the latter work in wood with such distinguished skill, that they supply with furniture all the Europeans who reside throughout the Archipelago. A great commerce is carried on by the Malaysians in exchanging the products of their different islands, and of their industry. The Bugis, however, are the most commercial people of the Archipelago, and those of the State of Wajou monopolize the greater part of the foreign trade. The latter have colonies established in all the ports of Malaysia, from Acheen to Manila, and furnish almost all the crews of the Bugi proas which navigate the intervening seas. Nearly all the princes and chiefs of the maritime states of Malaysia and their principal officers trade on their own account, and in some places exclusively. Among the foreigners in Malaysia the Chinese carry on the most extensive trade. They are in the Archipelago what the Jews were in Europe during the middle ages, and still are in Asia, Africa, and eastern Europe. But, more active and more industrious than the Jews, besides trading both by wholesale and retail by sea and land, the Chinese also exercise the professions of gardeners, tailors, shoemakers, painters, distillers, and potters; they manufacture all the furnishings required by the civil and military establishments, levy the taxes, excise, and customs, work the mines, and coin the money. The insular position of the greater part of the Malaysians has made them expert and intrepid mariners; and they have carried to a high degree of perfection the construction of their various kinds of vessels. The Achinese and the Siaks of Sumatra, the Macassars and Bugis of Celebes, the Tagales of Luzon, and the natives of Mindanao, Sooloo, and Bali, excel all the other Malaysians in this art. The vessels of the Achinese, the Siaks, the Sooloos, and the Mindanaoese, are the largest, and are furnished with guns. The Tagales and others of the brown races of Luzon or Manila are almost universally employed as cannoners or pilots, for both of which professions they are eminently qualified. At the same time, however, that Malaysia exhibits so active a commerce, it is infested by a great number of pirates or corsairs, the most notorious of whom are the Achinese and Siaks of Sumatra, the people of Lingen, Kali, and Tuli-tuli, on the north-west coast of Celebes, the Tedongs a tribe of Dayaks, and the people of Sambas in Borneo, the people of Mindanao, the Illanos, and the Sooloos. But owing to the exertions of the British and Dutch cruizers, this public nuisance has been of late years much checked in those parts of Malaysia which are frequented by their subjects. The energy exerted by the present Rajah, Sir James Brookes, with the assistance of the British navy, has gone far to extirpate the pirates from Borneo and the Malaysian seas. The slavery, which is recognised and sanctioned by law throughout Malaysia, with the exception of Java, the ferocity of some tribes, and the weakness and low condition of others, give occasion to the same kinds of abuse, violence and atrocity, for which the African slave-trade has been so justly decried. All the nations which we have mentioned as the most addicted to piracy, are also the most actively engaged in this trade, which has received a great extension from the demands of the European, and particularly the Dutch, settlements for slave labour.

The principal articles of export are: nutmegs, cloves, cinnamon, pepper, coffee, rice, tin, gold, diamonds, pearls, ivory, edible birds'-nests, sandalwood, indigo, cotton, sugar, tobacco, camphor, turpentine, betel leaf, ambergris, coal, corn, horses, furs, lint and wool of the finest quality, whale-oil and balein, tortoise-shell, holothurians, birds of paradise, cocoas, ginger, sago, canes, rattans, areca nuts, bamboos, bread-fruit, wood of various kinds for building and cabinetmaking, and particularly, teak, coal, &c. The principal articles of import are: opium, salt, cloths, silks, porcelain, copper, oil, soap, wine, liqueurs, fire-arms and other weapons, gunpowder, and a great variety of European articles. The principal trading places are: Batavia, Samarang, Sourabaya, in Java; Rhio; Amboyna; Coupang, in Timor; Macassar, in Celebes; Manila, in Luzon; Borneo; and Acheen, in Sumatra.

For the purpose of topographical description, Malaysia may be divided into six groups of islands, namely—1. *Sumatra*, and the smaller islands adjacent; 2. The long chain of islands which extends east and west from the Strait of Sunda to New Guinea, including *Java*, *Madura*, *Bali*, *Lombok*, *Sumbawa*, *Comobo*, *Flores*, *Jindana* or *Sandelwood*, *Adenar*, *Solor*, *Lomblem*, *Pantar*, *Ombay*, *Timor*, *Semao*, *Rotte*, *Savu*, *Cambi*, *Wetter*, *Serwatty*, *Babba*, *Timorlaut*, &c.; 3. The *Banda* and *Molucca Islands*; 4. *Celebes* and the smaller adjacent islands; 5. *Borneo* and adjacent islands; 6. The *Philippine Islands*.

1. **SUMATRA** stretches from N.W. to S.E. about 1050 miles, with an average breadth of 180, being divided into two almost equal parts by the equator, and extends from $5^{\circ} 56' N.$, to $5^{\circ} 56' S.$ lat. It is broadest in the south, and becomes gradually narrower towards the north. A chain of mountains runs through its whole length, keeping nearest the west coast, forming in some places double and treble ranges, which vary in height from 3000 to 5000 feet, while some of their peaks rise to more than double that height. Mount *Kassumba*, under the equator, is about 15,000 feet high, and Mount *Ophir*, 13,800. Between the ranges are elevated plains, where the air is cool, and which, being clear of wood, are the best inhabited parts of the island. These also contain many large and beautiful lakes; but very little is known respecting the interior. The low land on the western coast is very narrow, scarcely any where exceeding 20 miles; but, in the southern part of the east coast, there are broad plains, which are intersected by large rivers. This diversified surface occasions considerable variety of climate; but the heat, even in the lowest parts of the coast land, are more moderate than in other tropical regions. At the most sultry hour in the afternoon the thermometer generally fluctuates between 82° and 85° ; and Mr. Marsden says that he never saw it higher than 86° in the shade, and that at sunrise it is usually 70° . Inland, as the country ascends, the heat decreases so rapidly that, beyond the first range of hills, the people require fires in the morning, and till the day advances; but frost, snow, and hail are unknown in any part of the island. The hill country is exposed to a dense fog, which rises every morning, and seldom disperses till three hours after sunrise. The island is subject to the monsoons; the south-east monsoon or dry season, commencing in May and abating in September; the north-east or wet monsoon, commencing in November and continuing till March, during which period the country is deluged with almost constant rain. There is also a daily change of sea and land breezes, the latter of which is cold, chilly, and damp; exposure to it is dangerous to health, and sleeping in it proves almost certain death. Thunder and lightning are frequent and terrific, especially at the change of the monsoons; and destructive earthquakes frequently occur. The soil is generally a stiff, reddish clay, covered with a layer of black mould, from which there springs a perpetual growth of rank grass, brushwood, or timber, affording abundant cover for wild beasts. The most important article of produce is rice; next to it is the cocoa-nut, which also serves as a general article of food, while its oil is used for anointing the hair, and for lamps. There are also large plantations of betel-nut trees and bamboos, sago-trees, and a great variety of other palms. Sugar-cane, maize, Chill pepper, turmeric, ginger, coriander, and cummin seed are raised. Pepper is a very important article; it seems to flourish in any kind of soil, and is a great article of trade. Camphor, benzoin, cassia, and cotton are also produced, and form articles of export. Hemp is extensively cultivated, not for any useful purpose, but for producing *bang*, an intoxicating liquor, which is smoked in pipes with tobacco. No country is more distinguished for the variety of fine fruits which it produces spontaneously. Among these are the mangustin, pine-apple, orange, shaddock, limes, lemons, bread-fruit, jack-fruit, mango, papaw, pomegranate, tamarind, and various nuts and almonds. Owing to the equable temperature throughout the year, there is an uninterrupted succession of shrubs and flowers, which diffuse a pleasant fragrance, and many of which are used in medicine and the useful arts. Among these are the cast-r-oil plant, caoutchouc, ubar, a red wood resembling logwood in its properties, and the upas or poison tree, whose deleterious qualities have been so much exaggerated. The zoology is distinguished by some of the most remarkable animals. Elephants and tigers are numerous and destructive. A small black bear is common; deer abound in great variety, and monkeys of all kinds are innumerable. There are also sloths, squirrels, stinkards, civet cats, tiger cats, porcupines, hedgehogs, armadillos, bats, alligators, hippopotamuses, guanias, camcleons, flying lizards, tortoises, turtle, and buffaloes both wild and tame. The latter supply the people with milk, butter, and beef, there being no bovine animals. The breed of horses is small, but well made and hardy; there are also sheep of a small breed, goats, and swine both wild and tame, otters, cats, rats, and dogs. Frogs, toads, and reptiles of every kind abound in the swamps; snakes are common, but of very few of them is the bite mortal. There is, however, the poisonous viper and the hooded snake; the boa constrictor is the largest, growing sometimes to a length of thirty feet, with proportionate bulk and strength. Birds are extremely numerous, including peacocks, eagles, kites, vultures, crows, jackdaws, kingfishers, the rhinoceros-bird, storks, snipes, coots, plovers, pigeons, quails, starlings, swallows, minas, parrots, parrots, geese, ducks, teal, &c. The Sumatran pheasant is a magnificent bird; the plumage being, perhaps, the richest among all the animals of the feathered tribe. The island may be said literally to swarm with insects, many of which are extremely annoying and destructive; and the surrounding seas abound with fish. Sumatra is rich in minerals. Gold is chiefly found in the mountainous districts of the interior, in a pure metallic state. There are no silver mines; but the copper mines contain a very rich ore, which resembles Japan copper in presenting the appearance of a mixture of gold. In the country of Menangeaboo, in the centre of the island, iron ore is collected, smelted, and formed into metal, and steel is manufactured of a peculiar temper, and with a degree of hardness which has never been equalled in Europe. Tin is one of the great mineral products; it abounds chiefly near Palembang on the east coast. Sulphur abounds; also yellow arsenic and salt-petre. There is also coal in various places; mineral and hot springs; edible birds'-nests; bees'-wax in great abundance, and an important article of trade; gumlac, and ivory.

The inhabitants are distinguished as Sumatrans and Malays, but the language of the latter is spoken every where along the coasts; it also prevails in the inland country of Menangeaboo, and is understood in almost every part of the island. The Malay character has been already described (see p. 752), and is every where the same. The Sumatran has many of the Malay vices, and a few negative virtues. He is mild, peaceable, and forbearing, but implacable in his resentment. He is temperate and sober, abstemious both in meat and drink; his diet consists of vegetables, and water is his only drink. The people are continent, modest, and courteous, grave in deportment, seldom excited to laughter, and habitually patient. On the other hand they are litigious, indolent, and addicted to gambling. They have made no great progress in manufacturing industry and the useful arts; and their proficiency in science is equally limited. They have no notion of astronomy or geography; they do not even know that their country is an island; they are entirely destitute of history and chronology, the memory of past events being only traditional. They are fond of music, but their instruments are chiefly of the noisy kind; they have no musical science, and only a few simple tunes. Their medical art consists in the application of a few simples, but chiefly in certain charms. They have no written

laws, and no persons invested with legislative powers. Their disputes are settled according to ancient usage by the chiefs of districts, who are both civil and criminal judges. They purchase their wives, who become to all intents and purposes their slaves, and may be sold again. Land is so plentiful that it is scarcely considered as a subject of property. They have few capital punishments; murder is compensated by money, and adultery is punished by a fine, except among the Battas, whose ferocious customs we have already mentioned (p. 971).

Sumatra is partly independent, and partly under the dominion of the Dutch, who seem to be aiming at the possession of the whole island, as they have now extended their conquests along the whole eastern coast to the neighbourhood of Acheen. That territory, with the country of the Battas, and the possessions of other tribes among the mountains, are probably all that can now be considered independent. *Acheen* or *Achin* (*Atsheen*) is a large city at the very north-western extremity of the island, about a league from the sea, consisting of about 8000 bamboo houses, situate in a thick forest of cocoa-nut trees, bamboos, ananas, and bananas, through which runs a river covered with vessels which are engaged in an active commerce. The authority of the sultan, once very extensive, appears now to be limited to the city and its immediate environs; the rest of his territory being in the possession of independent chiefs, and subject to continual anarchy. To the south of Acheen extends the country of the Battas, who form a sort of confederation, consisting of a great number of chiefs of districts; and farther south, along the east coast, are the kingdoms of *Siak*, *Jambi*, *Palembang*, and *Lampung*, all now subjected to the Dutch, whose dominion also extends along the greater part of the west coast; but no where are there any cities or towns of the least importance. The principal places on the west coast are at *Natal*, *Pontchang-catchil* or *Tappanouth*, *Pading*, *Fort Marlborough*, formerly the capital of the English settlements in Sumatra, and *Bencoolen* which formerly contained 10,000 inhabitants, but has now much declined. *Menangkaboo*, near the centre of the island, formerly the capital of an extensive empire, is still regarded by the Moslem inhabitants as one of the principal sanctuaries of Islam.

Along the coasts of Sumatra is a number of considerable islands. The principal on the west coast, going northward, are *Engano*, *Mega*, *Sanding*, *South Pagai*, *North Pagai*, *Sai-berout*, *Batou* or *Mintar*, *Claps*, *Nias*, *Baniak*, *Babi* or *Hog Island*, and *Cocos*. On the east coast are *Banka*, *Billiton*, *Sinkap*, *Lingen*, *Bintang*, and a number of smaller islands, which form together the kingdom of Lingen, whose sultan is a vassal of Holland; *Carimon*, *Panjore*, *Rantau*, *Rankalis*, *Ronpat*, and the *Arroa* islands, in the middle of the Strait of Malacca. *Banka* is a large but thinly peopled island, containing rich mines of tin, which is always found in alluvial deposits, seldom more than twenty-five feet from the surface. The tin of Banka is carried to almost every part of the world; but China and India are the principal markets. The island is inhabited by hill-people, sea-people, Malays, and Chinese, of the last of whom there are about 20,000, who perform all the labour of cultivating the pepper and working the mines. Billiton is noted for its iron mines. The islet of *Tanjong-pinang*, adjoining Bintang, was recently ceded by the sultan of Lingen to the Dutch for an annual pension of 60,000 florins. It contains the town of *Rho* or *Rioue*, which the Dutch have declared a free port, and which is advantageously situate for becoming a great entrepot for the trade of Malaysia, and a rival to Singapore.

To the north of Sumatra are the small islands of *Way*, *Rondo*, and others; and farther north, the two large groups of the *Nieobar* and *Andaman Islands*, which seem to form the connecting links between the mountains of Sumatra and the chain of Anapeetioniu, which terminates at Cape Negrais. The Nieobar islands are twelve in number; the principal of which are *Sumbalong*, *Carnieobar*, and *Nancourry*; which are hilly and woody, and abound in cocoa-nuts. The inhabitants are of the brown Malaysian race, and are a peaceable and well-disposed people. The Danes have at different times formed settlements upon them, and claim possession of the group. The Andamans consist principally of two long islands, the larger of which extends about 140 miles N.-S. They are mountainous, woody, and in some places very picturesque. The inhabitants are negroes, who exist in the lowest condition of savage life. They go quite naked, live in hovels formed of twigs, and never cultivate the ground, but subsist chiefly on fish, which they spear with great dexterity. To the eastward of the Great Andaman is *Barren Island*, a noted volcano. When seen from the ocean this island presents a surface of bare rocks rising 1690 feet above the level of the sea; but the interior forms a great circular basin filled with sea water, and bordered all round with steep rocks, and in the midst rises a volcanic cone, which is very frequently in activity, but can only be seen through a cleft in the outermost rocks.

To the south-west of the most southern point of Sumatra, between 12° and $12^{\circ} 14'$ S. lat., and about $97^{\circ} 4'$ E. long. are situate the *Cocos* or *Keeling's Islands*, a low coral group of a circular form, surrounding a lagoon, and protected by a reef. The interior of the islands is in general not more than from 3 to 6 feet above the level of the sea; the soil is mainly composed of fine calcareous sand, with a small mixture of vegetable earth. The climate, though warm, is very salubrious; the range of the thermometer in the hottest season is from 78° to 86° ; in the coldest, from 72° to 81° . A settlement has been formed upon them by two English gentlemen, who have introduced several Malay colonists, with various kinds of cultivated plants, cattle, goats, hogs, poultry, ducks, geese, and turkeys. Turtles are very numerous, and fish are found in great abundance.

2. **JAVA**, called by the natives *Tana* (the land) *Java* or *Misa* (the island), is separated from Sumatra by the Strait of Sunda, and extends east and west about 665 miles, with a breadth varying from 56 to 136. It is situate between $105^{\circ} 11'$ and $114^{\circ} 33'$ east long. and $5^{\circ} 38'$ and $8^{\circ} 46'$ S. lat., and contains about 50,000 square miles. It is traversed through its length by a range of mountains, the middle part of which is the most elevated. The north coast is low and swampy, intersected by a great number of rivers, indented with fine bays, and contains many towns and villages. The south coast rises abruptly into high and rugged hills, against which the surf dashes so violently, that, with the exception of a few bays, it is almost inaccessible. The great mountain range contains the craters of at least thirty-eight volcanoes, but of these none are at present known to be in activity, though many emit smoke after heavy rain. In their neighbourhood are numerous mineral springs. The climate is various. Along the low northern coast it is hot and sultry; but inland, on the higher ground, the atmosphere becomes cool and pleasant. In some places among the hills, and even in many of the inland towns, it is often so cold as to render a fire desirable. At Weltervreden the thermometer is generally at 86° in the dry season, or during the south-east monsoon, which extends from April till October; and from 83° to 90° in the wet monsoon, from November till March. The monsoons, however, are not regular. Heavy rain seldom sets in till December, and the heaviest falls in February and March. There is a constant succession of land and sea breezes every day and night. Perhaps in no part of the world is vegetation so richly luxuriant, nor are the wants of man so easily supplied, without any trouble in cultivation. In the lowlands there are extensive rice fields. Around every cottage and village a variety of esculent fruits and vegetables may be gathered throughout the year. On the mountains are lofty trees suitable for masts, while forests of teak of the best quality supply the place of oak for building ships of all classes. The principal articles of produce exported are coffee, sugar, rice, indigo, and tin. The island contains a population of about 6,000,000, of whom 1,000,000 speak the Javanese language, 1,500,000 the Sunda, and half-a-million, the Malay, besides about 50,000 or 60,000 Chinese. The

Javanese are a nation of husbandmen, and their subsistence depends entirely on the produce of the soil. Only about one-third of the surface is supposed to be under cultivation; yet Java produces not only enough of corn for its own consumption, but is, besides, the granary of Malaysia. Within a few years, however, the cultivation of all its staple products has been very much increased; the Dutch Government has given full permission to cultivate spices; and the progress of the island has been altogether more remarkable than that of either Brazil or Cuba. About three-fourths of the island are immediately under the Dutch Government, and the remaining fourth is divided between the Shsuhun or emperor of Java, whose capital is Surakarta, and the sultan who resides at Djocjocarta. Both of these princes are the descendants of the emperors of Mataram, who acquired great power towards the end of the 15th century. In 1755 the Dutch divided the remaining portion of the empire between them. The religion of both of these States is Mahometan, which prevails over almost the whole country. The Dutch territory is divided into nineteen provinces styled residences, each governed by a European resident, and all under the control of the governor-general, who resides at Batavia. The land force consists of 11 battalions of infantry, a corps of pioneers, 2 battalions of artillery, a regiment of hussars, and a few lancers. There is also usually a considerable marine force; and a flotilla of cruisers, manned by native Javanese, is attached to each residence. Notwithstanding the heavy expense of this large establishment, Java, in ordinary years, remits a considerable revenue to the king of Holland.

Batavia, the capital of Java and of all the Dutch possessions in the East Indies, is situate near the west end of the north coast, in $6^{\circ} 12' \text{ S. lat.}, 106^{\circ} 54' \text{ E. long.}$ It is built in marshy ground at the mouth of the river Jiliwong, on the site of the ancient city of Jaccatra; several of its streets are traversed by canals, which are crossed by numerous bridges, and have their banks lined with trees in the Dutch style. The houses are old-fashioned, many of them being only hovels, tenanted by natives and Chinese, and the whole has a cheerless and even squalid appearance. The city covers a large space, but the houses are far apart, and the grounds attached to them are extensive. The population, in 1824, was only 53,851, of whom 7000 were Europeans; but it has since very considerably increased, and the city and its environs, within a circuit of 20 miles, are now estimated to contain about 300,000, of whom 30,000 are Chinese. All the Europeans reside in the country, at *Walterreden, Cornelis*, and other places; sleeping in the town even for a single night, exposed to the noxious vapours, being almost certain to occasion fever. Batavia is the depot for the produce of all the Dutch possessions in the Archipelago; but its transport trade has much declined since the establishment of the free ports of Singapore and Rhio. *Buitenzorg*, the residence of the governor-general, is about four hours ride or 39 miles from Batavia. The sea opposite Batavia is covered with innumerable islets, which are clothed with luxuriant vegetation. *Bantam*, an ancient city west of Batavia, is now completely decayed; it was, formerly a great rendezvous of European shipping, is choked up by coral reefs and islands of mud. The Dutch abandoned it in 1817, for the more elevated station of *Ceram* or *Sirang*, 7 miles inland. *Angier*, still further west, on the coast of the Strait of Sunda, is the place where ships passing in the favourable monsoon generally call for supplies of water and provisions. It is situate on a large plain, adorned with extensive groves of cocoa-nut trees, and flanked by an amphitheatre of the most diversified and picturesque hills. A small fort, a bungalow, and a native village stand in close proximity near the shore. The other principal Dutch towns are *Cheribon, Samarang*, and *Sourabaya*, all on the north coast. Cheribon is a small town; but Samarang is a large city, built, like Batavia, in the old European style, with a flourishing trade, and about 38,000 inhabitants. Sourabaya is situate on the shore of a narrow strait which separates Java from Madura. It possesses the only perfectly secure harbour on the north coast, and the only one in which the shipping can be well defended by batteries on shore. The population is estimated at 50,000. Not far to the south-west, in the midst of the immense teak forests which cover the western part of the province, are the ruins of the ancient city of Majapahit, the capital of the Javanese in the most flourishing period of their empire; they extend for several miles along the banks of the river Kediri. *Surakarta*, the residence of the Emperor of Mataram, is a large city, built in the Javanese style, near the centre of the island, 270 miles S.S.E. of Batavia. It is, however, rather an assemblage of villages than a town; its population, in 1815, was estimated at 105,000. *Djocjocarta*, the residence of the Sultan, is also a large city, built in the same style, about 15 miles from the south coast, with a population estimated at 100,000. At *Brambanan*, between the two cities, are several ruined temples; and at *Boro-bodo*, near the northern frontier of the territory of Djocjocarta, are the remains of a large Buddhist temple, which crown a small hill, and consist of seven stages or enclosures, decreasing in a pyramidal form to the top, which terminates with a dome. The walls contain about 400 niches, each with the statue of a person sitting cross-legged, and as large as life. It much resembles the temple of Buddha at Gaya, in India. There are many other ancient remains in the island; the most remarkable natural object, besides the volcanoes, is an extraordinary valley called by the natives *Guwo-upas* (Poisoned Valley), three miles from Balor, on the Djiang. It is about half a mile in circumference, of an oval form, 30 to 35 feet deep, and quite flat at the bottom, which is without vegetation, and strewn with large stones and skeletons of human beings, quadrupeds, and birds. It is generally about half filled with a noxious gas, which destroys life in a few minutes.

The island of *Madura*, separated from the north-eastern coast of Java by a narrow strait, forms one of the Dutch provinces or residences. It is 85 miles long, and from 20 to 30 broad. The people generally profess Hinduism, and are governed by three native princes, subject to the Dutch. *Bali* or *Bally*, separated from the east end of Java by a strait, is about 70 miles long, and about 50 broad at the east end, from which it diminishes almost to a point at the west, forming a sort of irregular triangle. It is rugged and mountainous, and inhabited by an idolatrous people, under eight chiefs, who are despotic and independent. Hinduism is the prevalent faith. *Lombok*, to the east of Bali, from which it is separated by a wide strait, is of a compact form, about 53 miles by 45, rugged and mountainous, but populous, fertile, and well cultivated. The people are Mahometans, very civilized, and carry on a considerable trade. The people of both Bali and Lombok devote almost their whole attention to agriculture, and export large quantities of rice. They also produce considerable quantities of hides, tobacco, cocoa-nut oil, and coffee. Their cotton is of excellent quality, and is considered the best in the East Indies. *Sumbawa* (*Sumbava, Sumbhava*) east of Lombok, is about 180 miles long, but of very irregular form, the northern side being indented by a large gulf which nearly divides the island. It produces sappan-wood, rice, horses, saltpetre, sulphur, wax, birds'-nests, tobacco. Near the N.E. end of the island is situate the town of *Bina*, remarkable for its excellent harbour, which is considered as one of the finest in the world. At the western extremity of a long peninsula on the north coast, is the volcanic mountain of Tomboro, of which there was a terrible eruption in 1815. The sound of the explosions was heard over a range of 1500 miles, as far as Bencoolen on the one side, and Ternate on the other, and the shocks were felt at the distance of 1000 miles. The ashes were carried 200 or 300 miles, covering the sea with pumice and cinders, and making the day darker than night over a space of 500 miles. To the north of Sumbawa is a large group of low coral islands, named the *Paternosters*; to the north-east of these is a similar group named the *Postilions*; and to the westward the island of *Kange-lang*, forming the southern side of another large group of coral formation. Adjacent to the north-east coast of Sumbawa is the insulated volcanic mountain of *Gunong-Api*; and 500 miles farther east, in the Banda sea, is another insulated volcano, of the same name. *Manggary* (*Magaray, Comobo*) a

considerable island to the eastward of Sumbawa, is dependent on the Sultan of Bima, who is himself a vassal of Holland.

Flores (*Floris, Ende, Ende, Floresica, Great Solor or Manggary*) is 220 miles in length E.W. by 50 in breadth. It is traversed by a range of volcanic mountains, and subject to earthquakes; it produces slaves, cocoa-nut oil, tortoise-shell, sappan-wood and wild cinnamon; but the interior has never been explored by Europeans. The western part belongs to the Sultan of Bima in Sumbawa; the rest appears to be divided among independent chiefs, some of whom used to be subject to the Portuguese government of Larentuca, situate at the eastern extremity of the island. A fine harbour on the south coast belongs to a colony of Bugis who refuse to acknowledge the Dutch supremacy. To the south-west of Flores is the large island of *Sumba, Jindana* or *Sandalwood*, which abounds with buffaloes, horses, poultry, and pheasants, and produces cotton and sandalwood; the latter, however, is exported only in small quantity, owing, it is supposed, to the superstition of the natives, who are unwilling to cut down the trees, as they believe them to be the abodes of the souls of their ancestors. The island is possessed by independent chieftains.

Timor is above 290 miles in length, by 50 or 60 in breadth, and is described by voyagers as a beautiful island, of an irregular and picturesque surface, having its limestone hills covered with trees and shrubs. It is divided into 63 petty states, all vassals to the Dutch or the Portuguese, who both have settlements in the island. *Dilli*, on the north-east coast, a small town, with 2000 inhabitants, is the residence of the Portuguese governor. *Coupang*, on a fine bay at the S.W. extremity of the island, is the chief Dutch settlement; which has been declared a free port, by way of rivalry with Port Raffles in Australia. The governor resides in the fort of Concordia. To the S.W. of Timor are the smaller islands of *Simao* or *Semao, Rotte, Savu, Benjoar* and others; to the north, *Wetter, Kisser, Cambi*; and to the west, between Timor and Flores, *Ombay, Pantar, Lomblem, Adinar, and Solor*.

3. The **BANDA ISLANDS** are a very scattered group to the eastward and north-eastward of Timor, and are distinguished by the German geographers into three divisions:—the Group of Banda; the south-west chain; and the south-east chain. The first of these divisions is composed of ten islets, all more or less unhealthy, and subject to frequent and violent earthquakes. Of these, *Banda, Lonthoir*, and *Pulo-Aij*, are the most important, inasmuch, as they have been exclusively reserved for the culture of the nutmeg. The average produce of these islands has been estimated at 500,000 lbs. of nutmegs, and 150,000 lbs. of mace, which is the innermost covering of the nut. Banda contains the small town of *Nassau*, the residence of the Dutch governor; the forts *Belgica* and *Nassau*, on this island, and *Hollandia* on Lonthoir, defend the fine bay formed by these two islets and the insulated volcanic mountain of *Gunung-Api*, the third of the name which we have had occasion to mention. The south-west chain consists of several islands subject to the Dutch. The principal are *Letti, Moa, Laekar, Sernatta* or *Sorawathy, Kisser, and Wetter*; the last two of which have been already mentioned as being adjacent to Timor. The south-east chain consists of a number of larger islands, as *Timorlaut, Larat, Tenomber, the Great Key* and the *Little Key*; but the only one of them which is of any importance is the Great Key, which contains the town of *Ely*, the seat of a great trade carried on by the Bugis.

The **MOLUCCA ISLANDS** are situate to the north of the sea of Banda, and include the large islands of *Ceram, Bouru, Gilolo*, and many smaller islets. By some geographers the Banda Islands are also classed under this name. *Ceram*, 220 miles in length, by 50 in breadth, is traversed by a range of mountains, and is very populous. It is divided among several chiefs, all of whom are vassals of Holland. *Bouru* lies to the westward of Ceram, and is 120 miles in length, by 60 in breadth. *Cajeli*, at the east end, is the residence of a Dutch governor; but the chiefs of the island are independent. To the eastward of Ceram is the small island of *Goram*, only remarkable as the most easterly point which the religion of Mahomet has reached. To the south-west of Ceram, and close to the coast, is the celebrated island of *Amboneta*, the principal seat of the cultivation of cloves. It is 32 miles in length, by about 19 in breadth, and contains an area of 434 square miles, with a population of 45,000. Its surface is mountainous, and is divided by a long gulf or bay into two unequal peninsulas. The soil is a rich red loam; the climate is healthy; the average heat of the year is 82° of Fahrenheit; the lowest temperature, 72°. The Dutch governor resides at *Fort Victoria*, on the south-east side of the great bay; and immediately adjoining is the town of *Amboneta*, which contains about 7000 inhabitants. The Molucca Islands, properly so called, consist of *Gilolo, Ternate, Tidor, Mohir* or *Matelan, Butchian, Grand Oby, Mysol, Popo, Mortay, Salibaba, Mengis*, and many others. The largest of them is *Gilolo*, which is 229 miles in length, but of very irregular breadth, consisting in fact of four peninsulas, which meet near the centre of the island. *Ternate*, a small island on the west side of *Gilolo*, contains a lofty volcanic peak, whose recent eruptions have almost destroyed the surface of the island. It was previously celebrated for the production of cloves, nutmegs, and mace, and was considered of great importance by the Dutch as a commercial and military station. *Tidor*, to the south of Ternate, and smaller, is a still more populous island than the latter was, and also contains a lofty peak.

4. **CELEBES**, one of the principal islands of Malaysia, extends 769 miles in length between its north-eastern and south-western extremities, but is very narrow, and of the most irregular form, consisting, like *Gilolo*, of four peninsulas, which are separated by three large gulfs. Its area is computed at 75,000 square miles. It abounds in extensive grassy plains, which afford cover and abundant pasture for deer, wild hogs, and a variety of other game. Rice, maize, and cassava, are the principal agricultural products. The middle part of the island is said to be inhabited by *Haraforos*; but the greater part of the population are of the brown race, divided into a great number of tribes or nations, of whom the Bugis are the most considerable. Most of the native states are dependent on the Dutch, who have their principal station at *Fort Rotterdam* and the small town of *Hardingen*, both erected on the site of the ancient city of Macassar, which has a fine and secure roadstead, near the south-west extremity of the island. The principal native state is the kingdom of *Pamor* or *Bani*, on the east coast of the south-western peninsula; its actual capital is *Bayan*, a town of 8000 inhabitants. The middle part of the island is occupied by the kingdom of *Wadjo*, inhabited by Bugis, and governed by an elective king or chief, assisted by a council of forty chiefs, who decide on all questions of peace and war. Adjoining Celebes is a number of islands, some of which are of considerable extent, as *Sanguar* and *Sira*, off the north-east point; *Zulu-mangala, Zulu-lasi, Banzay, Batabang, Peling, Bankel, Wazzen, Waiwangy, Bording, Panjasing, and Toukang-lavi Isles*, off the east coast; *Cambyna, Sabayer, Tiger Isles, Schedam Isles, Crompa, Kalntoa, Madon*, off the south coast.

5. **BORNEO**, called by the Malays *Pulo Klenantan*, is a very large island, of a compact form, about 750 miles in length, by 350 in breadth, and contains an area of 260,000 square miles. It lies immediately under the equator, extending from 4° 10' S. to 7° N. lat. The interior of this great island is still a complete blank in geography, and even of the coasts but little is known. The geological formation of the mountains is generally granitic. The island is said to be rich in minerals, and produces gold, tin, diamonds, camphor, spices, and other valuable articles of commerce. The several coasts are inhabited by people of different races, totally unconnected, governed by their own laws, and having their own peculiar customs: the west coast, by Malays and Chinese; the north-west, by the mixed descendants of the Moors of Western India; the north, by Cochin-Chinese; the north-east by Sookos; and the east and south, by Bugis. There are, besides, three distinct tribes, who live in prahus, along

the coasts; the Lanuns, from Mindanao; and the Orang-badju, and the Orang-tidong, of unknown origin. The interior and part of the north-west coast are inhabited by *Dayaks* or *Dyaks*, a savage people, who are scattered in small tribes over the island, and are believed to be its aboriginal inhabitants. They are of the brown Malaysian race, and of mild and prepossessing manners; but, as they have suffered greatly from the Malays, they now generally avoid strangers. Some parts of the interior are also inhabited by people of the negro race, named *Dayers* or *Igolotes*. Borneo is divided into a great number of petty states, most of which are independent; but some of those on the west coast are subject to the Dutch, and those of the north-east, to the Sultan of Soloo. The principal of the independent states is the *Kingdom of Borneo* (Bourni), on the north-west coast. *Borneo*, the capital, is situated on a considerable river, and intersected by canals. It contains about 10,000 inhabitants, many of whom constantly live in boats. The *Kingdom of Iassir*, on the east coast, is possessed by a Malay Sultan, who resides at *Cotti* or *Gooty*. His subjects, as well as those of Borneo, are notorious pirates. The Dutch have several settlements, divided into two residences or provinces. The Residence of the west coast comprises—1. The States of the Sultan of Sambas, whose capital is *Sambas*, a small town with a Dutch fort; 2. The country of Mumpawa, which extends very far inland, and contains the rich gold mines of Mandor or Montrado, which are worked by Chinese; 3. The kingdom of Pontianak, whose capital of the same name is a small town, with a fort, and 3000 inhabitants; 4. The countries of Landak and Sandou, in the interior to the eastward of the preceding; Landak is renowned in the East for its rich diamond mines, where in 1815 was found a diamond weighing 367 carats uncut, and which Balbi considers to be the third largest in the world; 5. The country of Sim-pang; 6. The State of Malan, or the ancient empire of Succadana, the throne of which was long occupied by princes of Javanese origin, vassals of the king of Bantam; 7. The territory of Kandawagan. The Residence of the south and east coasts, or of Banjermassing, comprises the countries of Komaay, Pambuan, Mandawa, Great Dyak, the Peninsula of Tanah Laut, and several other adjoining districts in the interior. *Banjermassing*, a town of 7000 inhabitants, with an active trade, situated on a river of the same name, is the capital. The smaller islands geographically attached to Borneo, are the *Natunas*, *Anambas*, *Tambelan*, *St. Esprit*, *St. Barbe*, *Daton*, *Caramata*, *Kumpal*, on the west coast; *Lau-rot*, *Mores*, *Pulo Laut*, *Triangle-rocks*, *Little Paternoster*, *Donderkom*, *Iemige*, *Maratubou*, on the east coast; *Bulambangan*, *Bangry*, *Malawali*, *Cagayan-sooloo*, on the north-east coast; and the *Sooloo Archipelago*, extending between Borneo and Mindanao. This Archipelago comprises a great number of islands, of which about 60 are inhabited; they are subdivided into three groups, but form only one kingdom, under the Sultan of Sooloo, whose subjects are devoted to piracy. His capital is *Bewan* or *Soung*, a town of 6000 inhabitants, in the island of Sooloo.

6. THE PHILIPPINE ISLANDS are the most northerly group of Malaysia, extending between 5° and 20° N. lat. and 116° and 120° E. long. The group consists of about a thousand islands, of which nine are remarkable for their extent, namely, *Luzon* or *Luçon*, *Samar*, *Leyte*, *Mindanao*, *Zebu*, *Negros*, *Panay*, *Mindoro*, and *Palawan*. They are all mountainous and volcanic; and their surface is diversified not only by numberless torrents and straits, but also by marshes, mossy grounds, and lakes; there is but little regular firm land. During droughts the miry and spongy soil is full of elinks; earthquakes occasion dreadful ravages; the islands are also frequently visited by violent hurricanes and drenching rains; yet it is to the great humidity that the Philippines owe their fertility. They contain wide forests of stupendous trees, and the greatest part of the birds, beasts, plants, and fruits for which Asia is remarkable are there found of a superior class, besides many productions not met with elsewhere. The sea, rivers, and lakes abound with fish, and the earth teems with valuable minerals. The climate is generally very uniform, and usually mild, but is nevertheless exposed to great and sudden changes. The trees never lose their leaves, and the ground always wears a green and smiling aspect. The plants and flowers are beautiful and aromatic; the fruits are nutritive and of exquisite taste; the air is salubrious, and the natives live to a good old age, though foreigners, from the effects of too copious a perspiration, are not generally so healthy. When the Spaniards first arrived at the Philippines, they found scarcely any other food than rice; now, wheat and other grains are abundant, as well as most of the other productions of the Old World, as coffee, sugar, cocoa, hemp, tobacco, cotton, indigo. The same increase has extended to horses, horned cattle, hogs, and deer: sheep alone have degenerated, owing to the humidity of the climate. The prevalent diseases are intermittent fevers; contagious distempers, except the small-pox, are unknown; cutaneous diseases, however, are very common, and this the natives ascribe to the great use of fish. The population is numerous, but only a few hundreds are Europeans; the remainder consisting of Creole Spaniards, Mestizos, Malays, and aborigines. The latter are of both the brown and the negro Malaysian races, the last mostly occupying the secluded portions of the uplands, to which they seem to have receded as the lighter coloured people advanced. Very few of them have ever been domesticated by the Spaniards; and generally it has been found impossible to civilize them; it is observed that their numbers have greatly diminished, owing to the inclemency of the weather, diseases, particularly the small-pox, and their precarious supply of food. The brown races possess all the coasts and low country, some as subjects of Spain, and some belonging to independent princes. The Philippines were discovered in 1521 by Magellan, who lost his life in a skirmish with the natives of Leyte. They were colonized by the Spaniards in 1570; but the total number of settlers of that nation is estimated at no more than 4000, of whom 3000 are in the city of Manila.

Luzon, the largest of the Philippines, is about 350 miles in length, but of a very irregular form and breadth, and comprises an area nearly equal to that of all the other islands together. The portion subjected to the Spaniards is divided into sixteen alcadies or provinces; the independent portion, which comprises the east coast and almost the whole of the interior, is parcelled out among a number of petty chiefs, some of whose subjects are very ferocious and entirely savage. *Manila*, the capital of the Spanish settlements, is situated on the south-west coast, not far from the mouth of the river Passig at the head of a large and beautiful bay. It is a well built town, and is divided by the river into two parts, which communicate by a fine stone bridge. The palace of the captain-general, the cathedral, and two of the principal convents, are the finest buildings; several of the churches are richly decorated. There is a theatre, a college, several schools, and a patriotic society, founded in 1781. There are several manufactures and other works, and the commerce of the city is very important. The city proper is said to contain only 10,000 inhabitants; but, including all the suburbs, the amount of the population has been estimated from 160,000 to 175,000; but there are no means of ascertaining it. The only other town of any importance is *Cavite*, on the Bay of Manila, with about 6000 inhabitants, containing fine ship-building slips, an arsenal, large magazines, and a fine harbour, which also serves for the port of Manila during six months of the year. The Spaniards also possess Samar; the west coast of Leyte; Zebu and Bohol; the coasts of Negros and Panay; the small group of the Calamines; a small part of Mindoro; the small group of the Babuyanes to the north of Luzon; Grafton, one of the Bashee islands; and three small isolated districts in Mindanao, including the town of *Sambuan-gan*, at the south-western extremity of the island, a small place, with 1000 inhabitants, and a fort. The other two districts are *Misamis*, near the middle of the north coast, and *Caraga*, on the east coast. All the other islands and parts of islands are independent.

The *Kingdom of Mindanao* or *Magindanao*, comprises nearly the whole of the east coast, and the greater part of the best portion of the island, with the small group of *Mangis* to the south-east. *Se-*

langan is the residence of the Sultan; the city of *Magindanao*, which is separated from it by a river, is almost wholly abandoned. The people of this kingdom are formidable corsairs, as are also the *Illanos*, whose territory extends to the westward of that of *Mindanao*, and who form a confederation of 16 sultans and 17 chiefs. The independent part of the west coast is occupied by savage tribes.

Palawan or *Puragon*, one of the largest of the Philippines, is about 280 miles in length, but seems no where to exceed 35 in breadth; it is, however, very little known. The interior is occupied by independent tribes; a great part of the coasts is subject to the Sultan of Sooloo; and the Spaniards possess only the small district of *Tay-tay*, on the north-east coast.

The most northerly islands of Malaysia are the *Bushee Islands*, situate about midway in the channel between *Luzon* and *Formosa*. The group consists of several small islands, ruled by independent chiefs, except that of *Grafton*, where the Spaniards have a small establishment. The other larger islands are *Bayal* or *Orange*, *Batan* or *Monmouth*, and *Bushee* or *Goat Island*.

Having thus gone over all the islands, we shall conclude our account of Malaysia with a list of the principal seas, bays, gulfs, straits, and capes.

SEAS, &c.—The *Strait of Malacca*, between *Malaya* and *Sumatra*; the *Strait of Sunda*, between *Sumatra* and *Java*; the *Strait of Bali*, between *Java* and *Bali*; the *Java Sea*, between *Java* and *Borneo*; *Banca Strait*, between *Banca* and *Sumatra*; *Gaspar Strait* and *Clement's Strait*, between *Banca* and *Billiton*; the *Caramata Passage* or *Billiton Strait*, between *Billiton* and *Borneo*; the *Strait of Lombok*, between *Bali* and *Lombok*; *Allass Strait*, between *Lombok* and *Sumbawa*; *Sappi Strait*, between *Sumbawa* and *Comobo*; *Mandgerai Strait*, between *Comobo* and *Flores*; *Timor Strait*, between *Timor* and *Ombay*; *Flores Sea*, to the north of *Flores* and *Timor*; the *Banda Sea*, between *Timor* and *Ceram*; the *Molucca Passage*, between *Gilolo* and *Celebes*; *Tomini Gulf*, *Tolo Gulf*, and *Bony Gulf*, on the east side of *Celebes*; *Macassar Strait*, between *Celebes* and *Borneo*; *Celebes Sea*, between *Celebes* and the Philippines; the *Sooloo* or *Mindoro Sea*, between the *Sooloo Archipelago* and *Palawan*.

CAPES.—*Acheen Head*, the northern extremity of *Sumatra*; *Java Head*, the western extremity of *Java*; *Cape Bujeado* and *Cape Engano*, the two northern extremities of *Luzon*; *Cape Espiritu Santo* the north-eastern extremity of *Samar*; *Cape St. Augustine*, the most easterly point of *Mindanao*.

BORNEO.—Of late years our information respecting this great island has been much extended, and principally through the exertions of Sir James Brooke, now *Rajah* of *Sarawak*, and governor of *Labuan*. This gentleman having, in a voyage to China in search of health and amusement, first become acquainted with the great islands of Malaysia, formed the project, not only of visiting and exploring them, but also of introducing the blessings of civilization. His enthusiasm and wealth enabled him to overcome all preliminary difficulties, and he commenced his operations in *Borneo* in the summer of 1839. He has now acquired for himself in perpetuity, the district of *Sarawak*, on the north-west coast. The adjoining island of *Labuan*, or *Labuhan*, has also been ceded to the British government, and he has been appointed its first governor.

In its geographical features *Borneo* presents great variety. It has high mountains, magnificent rivers, large lakes, and probably in the northern part, considerable plains. Its mineral productions are of the richest kind. Coal is abundant in *Labuan*, and *Borneo* proper. Antimony is found in large quantities, especially in *Sarawak*; and iron in most parts of the island. Tin, nickel, and quicksilver also form parts of the mineral wealth of this important island. Gold abounds in the sand and gravel of the rivers, in alluvial soil, and in the caves and crevices of the limestone rocks. Diamonds likewise are met with in large numbers, and often of considerable size. The climate is healthy, and to Europeans not oppressively hot. The soil, so far as yet known, is extremely productive. The sugar-cane grows with the greatest luxuriance. Nutmegs and almost all other kinds of spices flourish, with little trouble to the cultivators. Coffee and tobacco thrive well, and cotton is likely to prove an important article of produce. Indeed, most of the ordinary vegetable products of tropical regions are in abundance. Among the more curious is the gutta-percha, now becoming so extensively used for various purposes. The celebrated upas tree is also there, but its poisonous influence seems to have been much exaggerated. *Labuan* is situated between 5° 10' north latitude, and 115° 23' east longitude. It is about 11 miles in length, and six in breadth at its southern extremity. As a station commanding *Brunei*, and the whole of the north-western coast of *Borneo*, it is of the greatest importance; and its coal, which is of excellent quality, and found in abundance both on the island, and on the adjoining mainland, will render it a possession of the utmost value. Sir James Brooke has also, by his admirable and energetic conduct, aided by the exertions of Captain Keppel, R.N., and the vessels under his command, almost suppressed the piratical hordes in *Borneo* and the Malaysian seas, who infested them.

II. AUSTRALASIA.

THE astronomical position of this central region of Oceania is between 1° N. and 55° S. lat., and 112° and 180° E. long. It is bounded on the west by the Indian Ocean; on the north-west, north, and north-east, by an imaginary line drawn between New Holland and New Guinea on the one side, and Timor, Timorlaut, Ceram, Mysol, Gilolo, the Pelew Islands, Carolinas, Feejee Islands, &c., on the other; on the east, by the Southern Pacific Ocean; and on the south, by the Antarctic Ocean. Australasia includes *Australia* or *New Holland*; *Van Dieman's Land*; *New Zealand*; *Papuasias* or *New Guinea*; *New Britain*, *New Ireland*, *Solomon Islands*, *New Caledonia*, *New Hebrides*, *Queen Charlotte's Islands*; *Solomon's Archipelago*; *New Hanover*; *Admiralty Isles*; besides many smaller islands scattered over the intervening seas.

AUSTRALIA.

ASTRONOMICAL POSITION AND DIMENSIONS. — Between 10° and 40° S. lat., and 112° and 154° E. long. Greatest length from east to west, 2400 miles; greatest breadth, from north to south, 1970; superficial area, 3,000,000 square English miles; length of coast-line, about 8000 miles.

GENERAL ASPECT. — Australia presents a very compact mass of land, with few gulfs or bays penetrating to any considerable distance inland, and, so far as has yet been discovered, no large navigable rivers. With the exception, however, of the south-eastern corner, extending from Spencer's Gulf on the south coast, to Moreton Bay on the east, and a small district in the south-west, the interior, beyond what is visible from the shore, is quite unknown. The east coast, throughout its whole extent from Bass's Strait to Torres's Strait, is bounded by ridges of steep, and in some places, lofty mountains, at various distances from the sea, approaching in some parts within 30 miles of the coast, while in others they recede to double and treble that distance, and leave between them and the ocean a belt of cultivable land, intersected by short rivers, and terminating seaward with a high and sometimes precipitous coast. The southern coast, on the contrary, from Cape Leeuwin to Spencer's Gulf, is generally low and sandy, with only a few scattered eminences, and scarcely any where presents mountains in the interior. The eastern coast of the Gulf of Carpentaria is no where higher than a ship's mast-head; the south and west coasts are more hilly and broken. From Cape Wessel to Cambridge Gulf, the coast of Arnheim's Land is flat and wooded, and interspersed with low hills, which present generally flat summits; but, from Cambridge Gulf to Cape Cuvier, the north-west coast exhibits irregular ranges of detached rocky hills composed of sandstone, which rise abruptly from extensive plains of low and level land, while in some places the adjoining sea is studded with numerous sandstone islands. Farther south the coast seems to resemble that of New South Wales, and to be lined at a short distance by ranges of mountains.

SEAS, BAYS, GULFS, STRAITS. — The *Gulf of Carpentaria*, a large expanse of sea on the north coast, 650 miles in length, north and south, by 400 in width. *Shelburne Bay*, *Temple Bay*, *Princess Charlotte Bay*, *Bathurst Bay*, *Trinity Bay*, *Rockingham Bay*, *Halifax Bay*, *Cleveland Bay*, *Edgcombe Bay*, *Ripple Bay*, *Broad Sound*, *Shoalwater Bay*, *Keppel Bay*, *Port Curtis*, *Bustard Bay*, *Hervey Bay*, *Wide Bay*, *Moreton Bay*, *Trial Bay*, *Port Macquarrie*, *Port Stephen's*, *Port Hunter*, *Broken Bay*, *Port Jackson*, *Botany Bay*, *Lake Illawarra*, *Shoalhaven*, *Jervis Bay*, *Sussex Haven*, *Batemans Bay*, *Twofold Bay*, *Corner Inlet*, on the east and south-east coast, between Cape York and Wilson's Promontory. *Bass's Strait*, a large open channel, 140 miles wide, between Australia and Van Dieman's Land, first discovered by Mr. Bass, a surgeon of the navy, in an open boat in 1798; *Western Port*, *Port Phillip*, *Portland Bay*, *Discovery Bay*, *Encounter Bay*, *Gulf of St. Vincent*, *Investigator Strait*, *Spencer's Gulf*, *Coffin Bay*, *Anxious Bay*, *Streaky Bay*, *Smoky Bay*, *Fouler's Bay*, the *Great Australian Bight*, *Esperance Bay*, *Doubtful Island Bay*, *King George's Sound*, *Torbay*, *Wilson Inlet*, *Parry Inlet*, *Flinders' Bay*, on the south coast. *Baie du Geographe*, *Cockburn Sound*, *Gage Road*, *Jurieu Bay*, *Geelrink Channel*, *Gantheaume Bay*, *Shark Bay*, *Geographe Channel*, *Exmouth Gulf*, on the west coast. *Desaut Bay*, *Lagrange Bay*, *Roebeck Bay*, *Sunday Strait* and *Cygnat Bay*, *Collier Bay*, *Camden Sound*, *Port George IV.*, *Prince Regent River*, *Brunswick Bay*, *York Sound*, *Prince Frederick's Harbour*, *Montague Sound*, *Admiralty Sound*, *Vansittart Bay*, *Cambridge Gulf*, and *Anson's Bay*, on the north-west coast. *Van Dieman's Gulf*, formed by Melville and Bathurst islands and Coburg peninsula, and opening to the sea by *Clarence Strait* and *Dundas Strait*, *Port Essington*, *Bowen Strait*, *Mountmorris Bay*, *Junction Bay*, *Castlereagh Bay*, *Brown Strait*, and *Arnheim Bay*, on the north coast.

CAPES. — On the east coast: — *Cape York*, the north-eastern point of the continent, from which in order proceeding southward we find *Orford Ness*, *Cape Greenville*, *Fair Cape*, *Weymouth Cape*, *Cape Direction*, *Cape Melville*, *Cape Flattery*, *Cape Bedford*, *Cape Tribulation*, *Cape Grafton*, *Double Point*, *Mount Hinchinbrook*, *Cape Cleveland*, *Cape Boulvingreen*, *Cape Upstart*, *Cape Hillsborough*, *Sade Point*, *Cape Palmerston*, *Cape Townshend*, *Cape Cupricorn*, *Break-Sea-Spit*, and *Sandy Cape*, *Cape*

Moreton, Cape Byron, Smoky Point, Cape Hawke, Sugar-loaf Point, Cape Solander and Cape Banks, the two points which form the entrance to Botany Bay; *St. George's Head at Sussex Haven; Mount Dromedary, Green Cape, Cape Howe, Ram Head, Point Hicks, and Wilson's Promontory*, a rocky mass which forms the most southerly point of Australia, at Bass's Strait. On the south coast, going westward:—*Cape Liptrap; Cape Paterson; Cape Wallonai and Point Grant*, at the entrance of Western Port; *Cape Schank; Point Nepean and Point Lonsdale*, at the entrance of Port Phillip; *Flat-top Point, Cape Patton, Cape Otway, Bold Head, Cape Sir William Grant, Cape Nelson, Cape Bridgewater, Cape Northumberland, Cape Buffon, Cape Lannes, Cape Bernouilli, Cape Morad; Cape Jervis*, at the south-eastern side of the gulf of St. Vincent; *Cape Spencer and Cape Catastrophe*, at the opposite sides of Spencer's Gulf; *Cape Willoughby, Cape Linwis, and Cape Borda*, on Kangaroo Island; *Cape Radstock, Point Brown, Point Bell, Point Fowler, Cape Adieu, Cape Pasley, Cape Knobb, Point Nuyts, Cape Chatham, Point D'Entrecasteur, Cape Beaufort, and Cape Leeuwin*. On the west and north coast, going northward:—*Point Naturaliste, Cape Leschenault, Cape Ronan, Cape Cuvier, Cape Farquhar, Northwest Cape, Point Gantheaume, Cape Leveque, Cape Bougainville, Cape Londonderry, Cape Van Dieman*, on Melville Island, and *Cape Arnhem*, at the entrance of the Gulf of Carpentaria.

ISLANDS.—Along the north-east coast there is a very great number of small islands, whose names we need not specify. The same coast is lined by a long chain of coral rocks named the *Barrier Reef*, in the inside of which there is a navigable but intricate channel. Proceeding southwards the first islands worthy of notice are *Moreton Island and Stradbroke Island*, which form the eastern side of Glasshouse and Moreton Bays; the *Solitary Isles*, in 30° S. lat.; *Black-head Isle*, to the north of Port Stephen's; *Montague Island*, 36° 20' S., *Seal Islands, Hogan Islands, Moncur Islands, Rodondo, and Glennie's Islands*, to the east, south, and west of Wilson's Promontory; *Phillip Island and French Island*, in Western Port; *Lady Julia Percy's, and Laurence Islands*, in Portland Bay; *Kangaroo Island*, off the Gulf of St. Vincent, about 100 miles in length, and from 25 to 30 in breadth, separated from the mainland by Investigator Strait and Back-stairs Passage, abounding with salt and game for the sportsman; *Althorp Island*, S.E. of Cape Spencer; *Thistle's Island, William's Island, Reesby's Island*, in Spencer's Gulf; *Boston Island*, in Port Lincoln; *Investigator's, Flinders', and Wallgrove's Islands, Nuyt's Archipelago*, &c. on S.W. coast of South Australia; *Archipelago of the Recherche*, on the south coast of Nuyt's Land; *Rottenest Island*, off the Swan River, in Western Australia; *Houtman's Abrolhos*, a cluster of rocks and shoals, separated from the mainland by Geelvink Channel, between 28° and 29° S. lat.; *Dirk Hartog's Island, Dorre Island, Bernier Island, Faure Island, and Peron's Peninsula*, off and in Shark's Bay; *Dampier's Archipelago, Howley Shoals, Lively Coral Reef, Scott's Reef, Cartier Island*, and many others, on the north-west coast; *Bathurst Island, Melville Island, Cobourg Peninsula, Croker's Island, and Wessel Island*, on the northern coast of Arnhem's Land, or North Australia; *Groote Eylandt* (i.e. Big Island), *Rickerton Island, Sir Edward Pelew's Islands*, and *Wellesley Islands*, in the gulf of Carpentaria.

CLIMATE.—As nearly a third of the area of Australia is situate to the north of the tropic of Capricorn, the climate of this portion necessarily partakes of the heat of the torrid zone; but little concerning it is known, since only the coasts have yet been explored. On the north coast, however, a wind from the south raises the temperature with extreme suddenness, and as the same effect is produced by a north wind in the interior of New South Wales, it may be inferred that the wind, in both cases, passes over a highly-heated country, probably over a range of sandy deserts. The other two-thirds of the area lie within the southern temperate zone, and towards the south-east and south the climate is really temperate and delightful; it nevertheless experiences sudden changes, there being instances of the thermometer having varied 25° in fifty minutes, in consequence of a sudden change of the wind. The north-west winds produce so great a degree of heat as to become scorching, and the thermometer then rises suddenly from 80° to 110°. The south-east winds, on the contrary, are very often cold and piercing, especially when there is a sudden change from a hot north-west wind. But in spite of such occurrences, which are to be considered as exceptions, the climate is generally delightful; and the evenings and mornings are as pleasant as in southern Italy. On the lower parts of the coast the thermometer ranges in summer from 36° to 106°; and in winter, from 27° to 98°. The average temperature of the spring months is about 65°; of summer, 72°; of autumn, 66°; and of winter, 55°. At Sydney the thermometer rarely falls below 40° in winter; but at Paramatta, only 15 miles distant, it is frequently so low as 27°; and, in the neighbourhood of the Australian Alps, where the snow is perpetual, the wind from the mountains produces occasionally a sort of snow storm in the low country. As the ground rises the temperature decreases: the winter at Bathurst, west of Sydney, and 1970 feet above the level of the sea, is much colder than on the sea shore, and warm winter clothing has been found necessary even in April, which corresponds with our October. Heavy snow storms also sometimes occur in these elevated regions; and though the snow does not lie in the valleys, yet the elevated flats and downs remain covered for many days; frost also is there frequent, and very intense. The mean annual temperature of these mountain terraces is nearly equal to that of England, but the extremes are much greater. The low interior is always hot, whether dry or flooded. In South Australia, the thermometer has been known to rise in summer to 101° in the shade; in a tent exposed to the sun it was observed one day at 113°; the next day, 117°; the third, 115°; but, on the fourth, only 61°. The climate of that province is indeed very changeable, "ten times more so than that of England," according to one writer; and, though generally salubrious, it is found to be better suited for invalids and persons who have passed the meridian of life, than for young people in robust health and of strong constitutions. It is very dry, though much less

so than in New South Wales; rain frequently falls in South Australia, whereas recently in New South Wales there was a continued drought of eighteen months.

The prevailing winds in summer are from north-east to south-east, and in winter, from north-west to south-west; the atmosphere is generally clear and dry; but dews are frequent and heavy, and sometimes assume the form of a drizzling rain; while in summer the hot winds, which however are of short duration, seldom continuing more than two days at a time, and often less than six hours, are the sure harbingers of a squall or thunder storm which fills the air with a volume of impalpable sand, but clears away every thing noxious, and restores afresh the usual serenity. During summer also a regular sea breeze sets in daily, and much refreshes the inhabitants of the coasts, where, besides, the hot winds are not felt so severely as at some distance in the interior. The most remarkable peculiarity, however, of the Australian climate, is its general dryness, although a great quantity of rain usually falls throughout the year; but it falls in torrents, and is not regularly distributed in showers. The rain, when it does fall, is generally confined to certain months, which vary on the opposite sides of the mountains; floods on the coast occurring simultaneously with dry weather in the interior, while, on the contrary, the latter has its rains when the coast is dry. May is usually the rainy season on the coast; between September and February the rain falls in the interior. There are, however, periods when no rain falls for one, two, or even three years together, and unmitigated drought prevails. These periodical droughts seem to occur at regular intervals of about twelve years; in close succession follows a period of floods or heavy rains, which are at first continuous and as general as the preceding droughts, but decrease with every succeeding year till the period of drought returns. It is only in the years that are intermediate between these extremes that a regular annual succession of seasons is observed; and even then, the seasons are more distinctly marked in the high than in the low country. The seasons, of course, occur at the periods of the year opposite to those of Europe, January being the middle of summer, July, of winter. Summer extends from November till March; and spring and autumn are brief but well defined. The spring months are September, October, and November; the summer, December, January, February; autumn, March, April, May; winter, June, July, and August.

The climate, however, is proverbial for salubrity; endemic diseases are unknown, except a species of ophthalmia, which occurs in October and November, and is occasioned by the prevailing winds of that season. Of a community of 1200 persons only five or six have been known to be sick at one time, and at some of the military stations seven years have elapsed without a soldier dying. Old people, on their arrival from Europe have suddenly found themselves restored to much of the hilarity of youth, and several persons have been known upwards of 100 years of age. Dysentery is the most prevalent disease; but deaths from disease are exceedingly rare, and all disorders yield with facility to the simplest remedies. The diseases, in short, which do occur, are represented as being, in three cases out of four, the result of moral causes. Excess in the use of animal food and of ardent spirits, is in Australia, as every where else, the great promoter of disease. Temperance in eating and drinking will be found by the emigrant the most effectual means for the preservation of health; while excessive indulgence, especially in the latter, is more likely than even at home to undermine his constitution, and to blast his prospects with still more fearful and fatal rapidity.

VEGETABLE PRODUCTIONS.—The plants of Australia are to a very considerable extent so peculiar in their organization that a large proportion of the genera, and some of the entire natural orders are quite unknown beyond its shores or those of the dependent islands. But it is principally in the south that this peculiar vegetation appears; for it changes in character as it approaches the north, till it finally assimilates itself to that of Malaysia. The great mass of the vegetable productions of Australia belongs to the natural orders proteaceæ, myrtaceæ, and compositæ; but the most common genera are the eucalyptus and acacia, which, if taken together, and considered with respect to the bulk of vegetable matter which they contain, nearly equal all the other plants in the country. Of the former above 100 species have been discovered, most of which are trees remarkable for their great size and height. Of the acacias nearly 100 of the leafless species have been observed. The epacridæ, with their allied genera, are nearly as numerous, and hold the same rank in Australia as the ericæ at the Cape of Good Hope. The orchideæ are found in great variety, being highly curious in the intertropical parts of the country, and chiefly land plants. Of palms only six species have been discovered; and of the genus *causurina*, 13 species. The coniferæ are few in number of species, but very fine; in particular, the

celebrated Norfolk Island pine (*araucaria excelsa*) occupies an extent of 900 miles along the coast. Among the *aspedozæ* the genus *xanthorrhæa* is the most remarkable; all the species yield a gum, and the *xanthorrhæa* produces above its leaves a foot-stalk resembling a sugar-cane, 20 feet long, and terminating with a spiral spike not unlike an ear of wheat. Their stem is used by the natives for spears; the tree yields a fragrant yellow resin which has been found very balsamic. Of the genus *urticæ* there are numerous species; many of these nettles reach 20 feet in height, and are of proportionally robust habit, with leaves so highly stimulating as to blister severely on the slightest touch. The *leguminosæ* and *compositæ* comprehend one-fourth of all the dicotyledonous plants, while the grasses form an equal proportion of the monocotyledonous; but of the latter only one-tenth part of the species have been observed in other parts of the world. Of the cryptogamic plants the greater number are the same as those of Europe, but some of them are also peculiar to Australia. The trees used by the colonists for domestic purposes are the iron-bark tree (*eucalyptus resinifera*) for building, but generally for fencing; the blue-gum (*eucalyptus pipenta*) for shipbuilding and wheels; the black-buttèd gum, for the same purposes; the grey gum for fencing and building; the stringy-bark for boards, building, &c.; the box, for wheels and ploughs; the forest-oak (*casuarina torulosa*), and the swamp-oak (*casuarina paludosa*), for cabinet work and shingles; the cedar (*cedrela australis*), for cabinet work; the turpentine tree, for boats; the sassafras, for flooring; the mountain ash, for carriage work; the sallow, for gig-shafts; the pear, for gun-stocks; the apple, for building; the white cedar, for building and boats; the Norfolk Island pine, for cabinet work; and the bark of the curragong, for cordage. Some of these trees rise to an astonishing height; and Mr. Martin says, that he has seen a vast forest with scarcely a tree of which the height was not 50 to 80 feet without a branch, while the general height of the whole trees was nearly 150 feet. Several trees yield gum-arabic, resins, and manna.

The culinary vegetables and fruits are numerous and of a delicious flavour; but they have been almost all introduced by the British colonists. Among the vegetables may be mentioned potatoes, cabbages, carrots, parsnips, turnips, cauliflowers, onions, asparagus, peas, beans, cucumbers, raddishes, lettuce, spinage, brocoli, capecums, artichokes, chardoons, celery, knohl, brengall or egg-plant, vegetable marrow, sweet potatoes, and sea-kale. Among the fruits may be mentioned grapes of every variety, strawberries, raspberries, pine-apples, oranges, lemons, citrons, guavas, love-apples, mangoes, English and Brazilian cherries, pears, apples, peaches, apricots, plums, figs, mulberries, loquats, grenadillas (great flowering passion-flower), pomegranates, cherasolia, sweet and water melons, bananas, plantains, quinces, litches, olives, chestnuts, filberts.

Altogether, the Australian flora was estimated by Mr. Brown, in 1814, to contain 4200 species; many more have since been discovered; but our limits prevent us from giving any general account of them, or even naming them. A few, however, are sufficiently remarkable to require particular notice. The New Holland lily is a stately plant which grows to the height of 20 to 25 feet, bearing on its crown blossoms of the richest crimson, from which the birds sip a delicious honey. The pitcher-plant is remarkable for having among its leaves ascidia or pitcher-shaped vessels which contain several ounces of a watery fluid with a slightly sweet taste. A singular and interesting plant has lately been discovered, which produces a fruit larger than a Spanish chestnut, with the same taste. The foliage is beautifully green, and affords a good shade.

ANIMALS.—The native animals of Australia are few in number of species, and of a very peculiar character. There are 58 species of mammalia, of which 46 are peculiar to the country, and of the other 12 species five are cetacea and four seals, leaving, in fact, only three land mammals common to Australia with the rest of the world, and of these one is the large Madagascar bat, another, a species of jerboa, and the third, a species of dog. There are no quadrumana, insectivora, pachydermata, or ruminantia; but there are two species of cheiroptera, eight carnivora, six rodentia, four edentia, and thirty-six marsupialia, of which four-sevenths are exclusively limited to Australia and the adjacent islands. The largest quadruped is the kangaroo, of which, however, there are many varieties, differing in size from the kangaroo rat to the forester, which stands four or five feet high; but these beautiful animals are fast disappearing before the pursuit of the colonists. The opossum tribe are very numerous, and generally take up their abode in the hollows of decayed gum trees, where they are pursued by the natives with a singular dexterity in climbing. The native dog is, next to the opossum and the kangaroo, the most numerous species of quadruped. It

somewhat resembles the Indian jackall, being about two feet long, and two feet high, with a head like a fox, and erect ears; the colour is generally a reddish brown. It does not bark, but sometimes yelps, and utters a dismal howl. It is extremely tenacious of life, very destructive to sheep and poultry, and is consequently hunted without mercy by the settlers. A considerable degree of animosity likewise exists between European dogs and these wild aborigines. But the most remarkable animals are those which we have mentioned above as belonging to the edentata, though, strictly speaking, they bear little analogy to the other animals of that order. Two of the four species are echidni or porcupines, the one entirely covered with thick spines, and the other clothed with hair, in which the spines are half hidden. The other two species are ornithorhyncei, animals which have the body and habits of a mole, the feet and bill of a duck, and the internal structure of a reptile, leading a burrowing life amidst the mud of rivers and swamps. Horses, cattle, sheep, and swine, have been introduced by the European colonists, and the country has proved to be remarkably well adapted for the breeding of these useful animals. Indeed no other country in the world seems to be so well adapted for the rearing of sheep, and the production of fine wool. The wool of Australia now enjoys the highest reputation in Britain and America; and most of the beautiful and soft woollen fabrics which go by the names of Indianas, merinos, and schallis, are manufactured from it. Many of the cattle have become wild, and Major Mitchell mentions that on two occasions he found himself surrounded by wild herds, the one amounting to 800, and the other to about 1600 head. Goats and rabbits have also thriven and multiplied, but not to the same extent. A fine breed of asses has also been introduced from South America, but they are not numerous.

Birds are numerous, of great variety, and many of them of beautiful plumage. No order of birds is without its representative in Australia; and there are but two species entirely peculiar to it, though these are more numerous than the others. The most singular bird is the emu, which is fast disappearing. The gigantic crane is a stately bird about six feet high, gregarious and carnivorous, easily domesticated, and frequently seen on the borders of rivers and lakes, where also the black swan abounds. The bustard or native turkey weighs from 15 to 18 lbs., and forms agreeable food. Eagles and hawks are every where to be met with. There are about thirty varieties of pigeon; and countless varieties of beautiful parrots, parroquets, and cockatoos; green, red, crimson, and purple lories, with many other elegant and curious birds; as that singular one, the lyre-tail, which belongs to the gallinaceous order; spur-winged plovers; pheasants of two species; and three kinds of magpie. The common crow and the swallow are every where found; and the Australian sparrow is a very pretty bird with varied plumage, in which a red or scarlet tinge is intermixed. A butcher bird, which destroys snakes and other reptiles, is named the laughing jackass, from its note resembling the coarse and boisterous laugh of a man, but louder and more dissonant. The coachwhip is a small bird whose note resembles the crack of a whip. Snipes, quails, kingfishers, and coots are abundant. The insectivorous birds are comparatively few; but the suetorial species, or honey-suckers, are numerous. The scansorial creepers are limited to two species. The toucans find their Australian representative in the channel-bill; the fly-catchers and warblers resemble those of Africa; there are two or three small finches of Indian genera; and the cuckoos and orioles are not much unlike those of Europe, Asia, and Africa. The aquatic tribes are nearly similar to those of other countries, as the pelican, penguin-goose, duck, teal, widgeon, frigate-bird, neddy, petterel, gull, and other sea birds. The genus *cerespis*, however, is found only in New South Wales; it is of a light grey colour, and as large as a goose. The musk duck is a curious bird, and has wings so short that it cannot fly.

Insects are very numerous, and of every variety; locusts are common in some parts of the colony of New South Wales; bees are of three species, and all without stings, producing a great deal of delicious wild honey; English bees, which have been recently introduced, multiply fast; the ants are of several varieties, those named the gigantic ant are nearly an inch in length. Their houses are not so high as those of Africa, but they are more solid and compact. Some species are, at one period, furnished with wings, and may be seen issuing from a hole in the earth, flying about in every direction, and then suddenly disappearing, strewing the ground with their wings. Flies are a nuisance in summer, and the blow-fly taints and putrifies every thing it touches. Spiders are generally large; caterpillars sometimes, at intervals of years, swarm in incredible numbers, blighting the finest crops in a few hours. Musquitoes are occasionally troublesome, but are disappearing before advancing civilization; and

those other creatures which accompany the want of cleanliness in England, are equally abundant and unpleasant in Australia. In South Australia fleas exist in incredible numbers.

Reptiles are not very numerous. There are, however, several varieties of snakes, some of which are poisonous. The largest is the diamond snake, which reaches the length of fifteen feet, but is not poisonous. Several water snakes have been found, and some have been seen at a good distance out at sea. There are also scorpions, centipedes, and tarantulas; with numerous lizards, frogs, and adders.

Fish are plentiful along the coasts, but few are found in the rivers, especially in those on the east side of the Blue Mountains, owing to the rapidity of their currents. Whales frequently come into the bays to calve, and seals are found in different coves, especially towards the south. The codfish is taken in the fresh water rivers west of the Blue Mountains, in great quantities and of a large size. Both these and the eels are delicious food. Perch abound in the rivers of the eastern coast; there are many varieties of other fish, with which the markets are well supplied. Large sharks are also sometimes seen. The shells of the Southern Ocean are highly prized, many of them being of great beauty and of elegant forms. Fresh-water mussels and shrimps are obtained in great numbers. Oysters are extremely plentiful, and, though generally small, have a delicate flavour.

PEOPLE.—The aborigines of Australia are considered as belonging to the Ethiopic or black race of mankind, but differ very considerably from the negroes of Africa, particularly in having the hair black, long, and coarse, with the exception of those on the south coasts, whose hair is woolly. The nose, though large, is not so flat as that of the Africans, indeed it sometimes approaches the Roman form; the features generally are far from being disagreeable; the lips are not thick, and the teeth are white and regular. The forehead is high, narrow, and formed at the crown like the roof of a house. The skin is of the colour of wood-soot, or chocolate. The beard is of the same colour with the hair of the head, and is bushy and thick. The colour, however, of the skin seems not to be every where the same; some, even when cleansed from their filth, are nearly as black as Africans, while others have a tint not deeper than that of the Malays. In form, the Australians are generally tall and slender, with small muscles; and are remarkable for agility rather than for strength. They are weak and puny in comparison with the negroes of Africa; and are as much inferior in moral and intellectual qualities and attainments. The Australians are the only people that go nearly naked. Of arts and manufactures they have scarcely any idea. Their nearest approach to ingenuity is the fishing net, which is prepared by the women from fibres or grassy filaments. Their only cutting tools are made of stone; and their arms of offence consist of spears, boomerangs, a singular sort of projectile, waddies or clubs, and tomahawks. Of agriculture, even in its rudest form, they have not the smallest knowledge; they have no herds and flocks; nor do they seem even to have any notion of barter, except where intercourse with Europeans has taught them to give their labour for a regular supply of food. They have no houses, but live in holes, or under the shelter of bark screens rather than huts. They seem to have no notion of property; but, on the contrary, hold every thing in common, except their women. They are among the lowest and most degraded of mankind, and are as completely barbarous as can well be imagined. In short, they may be described as rather gregarious than social; for though some personal respect is occasionally seen to be paid to a kind of chief among a tribe, it would seem to be entirely personal, and independent of any elective hereditary right. They believe in good and evil spirits; but it does not satisfactorily appear that they offer them any worship or homage. They seem to be incapable of civilization, and will probably, like the far nobler red men of North America, disappear entirely before the white intruders. In general it may be said that the whole of the aborigines belong to one stock; though it is not a little singular that their languages differ so much, that tribes at short distances from each other, unless inhabiting the banks of the same river, are entire strangers, while almost every community or family, as it may be termed, has its own peculiar dialect. Of their number no estimate can be formed; but depending entirely, as they do, for subsistence on the produce of fishing or the chase, or on gum or bulbous roots, it cannot be very great; and indeed the country is known to be very thinly inhabited.

Of the white inhabitants we need say nothing more than that the great bulk, or almost the whole of them, are of British origin; only a few foreigners being intermixed with them.

DIVISIONS.—The greater part of Australia is still without any political or administrative divisions; but several British colonies have been planted on the shores; and these we shall proceed to describe, under their respective names of *New South Wales*, *South Australia*, *Western Australia*, and *North Australia*. Various portions of the coast have also received particular names from the navigators who explored them; as, *New Holland* and *Tasman Land*, on the north-west coast; *Arnheim's Land*, between New Holland and the Gulf of Carpentaria, corresponding with what is now called North Australia; *Carpentaria*, the peninsular region between the Gulf of Carpentaria and the Eastern Ocean; *De Witt's Land*; *Endraght Land*; *Edel Land*; *Vlaming Land*; *Leeuwin Land*, on the west coast; and *Nuyt's Land*, on the south coast. These portions were discovered and named by Dutch navigators in the early part of the seventeenth century. The whole of the east coast was first explored by Captain Cook in 1770, and named by him New South Wales; the greater part of the south coast was explored in 1800 and 1802, by Captains Grant, Baudin, and Flinders, who bestowed no general names on their discoveries.

§ 1. *New South Wales.*

GENERAL DESCRIPTION.—This territory, according to the terms of the Governor's commission, “extends from the northern cape or extremity of the coast, called Cape York, in the latitude of $10^{\circ} 37'$ S., to the southern extremity of the said territory, or Wilson's Promontory, in lat. $39^{\circ} 12'$ S., including all the country inland to the westward, as far as the 129th degree of E. long., with all the islands adjacent in the Pacific Ocean within the latitude aforesaid of $10^{\circ} 37'$ and $39^{\circ} 12'$ S., and also including Norfolk Island, lying in or about the lat. of $29^{\circ} 3'$ S., and 168° E. long., saving and excepting that part of the said territory hereinbefore described, which is called and known by the name of ‘The Province of South Australia,’ and which lies between the meridian of the 132d and 141st degrees of east longitude, and between the Southern Ocean and the 26th degree of south latitude, with all and every the islands adjacent thereto, and the bays and gulfs thereof.” But within these wide limits only a comparatively small portion of country has yet been explored and colonized.

That small portion forms the south-eastern corner of Australia, extending along the coast from about Moreton Bay, in 27° S. lat., to the eastern border of South Australia, at Discovery Bay on the south coast, and inland to the river Darling, or the hills immediately beyond it; being altogether about 860 miles in length, from Moreton Bay to Port Phillip, and 550 miles in breadth, on the parallel of Sydney. The country is naturally divided into two very distinct portions: the first of which extends along the south and east coasts, between the sea and the mountains, which form a continuous watershed, in some places scarcely exceeding 100 miles, but for the most part at a much less distance inland; and the second forms a boundless extent of plains, interspersed with hills, and intersected by rivers, all of which flow northward, westward, or southward, to form the Murray, the largest river yet discovered in Australia, and which flows to the south-westward to Lake Alexandrina at Encounter Bay. Within the limits of the defined counties, which extend along the east coast for 325 miles, with a breadth from 80 to 190 inland, sandstone predominates so much as to occupy about six-sevenths of the whole surface; and wherever this happens, little besides barren sand is found in the place of soil; deciduous vegetation scarcely exists; no turf is formed, for as the trees and shrubs are inflammable, conflagrations take place so frequently in the woods during summer, as to leave very little vegetable matter to be converted into earth. In the regions of sandstone, in short, the territory is worthless, and is, besides, very generally inaccessible, thus presenting a formidable obstruction to any communication between isolated spots of a better description, which occur only where trap, limestone, or granite rocks exist. The aggregate extent, however, of these fertile spots is so small, that out of twenty-three millions of acres, only about 4,400,000 have been found worth possessing. While the owners of this appropriated land within the limits have been obliged to send their cattle beyond them for the sake of pasturage. And so extremely arid is the country beyond the mountains, that all the surface water which flows from the vast territory west of the dividing range, and extending north and south between the river Murray and the Tropic of Capricorn, a distance of about 1000 miles, is insufficient to support the current of one small river throughout the year. The country, however, to the south of the Murray is not so deficient in this respect, for there the mountains are higher, the rocks more varied, and the soil consequently better. Every

variety of feature may indeed be seen in these southern districts, from the lofty alpine region on the east, to the low grassy plains in which they terminate on the west. The Murray and its affluents flow through extensive plains, irrigating and fertilizing a great extent of rich country, the soil of which is formed by the decomposition of trap, granite, or limestone. Falling from mountains of great height, these rivers have a perpetual current, whereas in other parts of Australia the rivers are too often dried up, and seldom indeed deserve any other name than chains of ponds. Hills of moderate elevation occupy the central region between the Murray and the southern coast; they are thinly or partially wooded, but are covered with the richest pasturage. The lower country along the skirts of these hills, on both sides, is mostly open, slightly undulating towards the coast on the south, and generally well watered. The grassy plains which extend northward from these thinly wooded hills to the banks of the Murray, are furrowed by the channels of numerous streams, and by the more permanent and extensive waters of numerous deep lagoons; and, indeed, a finer country for the pasturing of cattle can scarcely be imagined. In the western portion small rivers radiate from the Grampians, an elevated and isolated mass, presenting no impediment to a free communication through the fine country around its base, to which Major Mitchell, who first explored it, gave the name of *Australia Felix*. Towards the sea on the south, and adjacent to the open downs between the sea and Port Phillip, is a low tract of country consisting of very rich black soil, which seems to be well suited for the cultivation of grain. Between Port Philip and Sydney a great part of the country remained till recently unexplored; but during 1840, Count Streletsky, a Pole, performed a zigzag pedestrian journey of 2200 miles through it. Towards the sources of the Morumbidgee and its affluents, he found the country particularly favourable for grazing and agriculture, both the hills and the valleys furnishing abundant natural and artificial crops. Farther south, and beyond the range of the remotest squatters, in the valleys of the Murray and its upper affluents, he found the country rich and well watered. Crossing the dividing range, he entered a country to which he gave the name of *Gipp's Land*, in honour of the governor, and which, on account of its extent, its richness as a pastoral country, its open forests, means of inland navigation, rivers, timber, climate, proximity to the sea, and its gradual elevation, rather hilly than mountainous, holds out cheering prospects to future settlers. It extends along the coast, between the sea and the Australian Alps, from the meridian 148° on the N.E. to Corner Inlet and Western Port on the south and south-west. Barometrical measurements give to Gipp's Land, on a line drawn between the dividing range and the sea, from the N.E. to lat. $38^{\circ} 8' S$, an average elevation of 268 feet. Scarcely any spot, in the opinion of Count Streletsky, either within or without the boundaries of New South Wales, on a large or a small scale, can boast of greater advantages than Gipp's Land. On an extent of 5600 square miles it has a sea-coast line of 250 miles; two harbours already known, those of Corner Inlet and Western Port; eight rivers, besides a navigable lake and lagoons; 3600 square miles of forests, plains, and valleys, which, in richness of soil, pasturage, and situation, cannot be surpassed; 2000 miles of coast range, with the most excellent quality of blue-gum and black-butt timber. The natives he found peaceable and inoffensive.

MOUNTAINS.—These, commencing near the coast of Portland Bay, in the south-west, extend in an almost continuous line, parallel to the coast, beyond the northern limits of the settlements. In *Australia Felix* are the *Grampians*, the main body of which extends above 50 miles from north to south, with an outlying ridge to the westward named *Victoria range*. From their eastern flank a range of grassy hills, named the *Australian Pyrenees*, diverges to the E.N.E. and connects the Grampians with the *Warragong* or *Australian Alps*, the highest range yet discovered in the country. These may be described as extending N.N.E. from Wilson's Promontory to the 36th parallel, where they attain their greatest elevation; they are then divided into two ranges, the one running to the north-west between the valleys of the Murray and the Morumbidgee, and the other to the north-east, where it forms the watershed between the coast land and the great plains of the interior. *Mount William*, the highest of the Grampians, rises only 4500 feet above the level of the sea; *Mount Cole*, the highest of the Pyrenees, about 3000; but the highest of the Alps being covered with perpetual snow, their elevation, though not ascertained, cannot be less than 15,000 feet. To the westward of Sydney the ranges have been named the *Blue Mountains*, and long formed an impassable obstacle to the progress of discovery in that direction. It was only in 1813, five-and-twenty years after the foundation of the colony, that a road was found across them. These mountains form the connection between the Australian Alps and the *Liverpool Range*, which extends east and west, through three or four degrees of longitude, under the 36th parallel, and presents a very formidable obstacle to any passage across it. The Blue Mountains attain no great elevation, *Mount York*, their highest peak, being no more than 3192 feet above the level of the sea; but the valleys and plains which occur among its ridges are very elevated. King's table-land is 2727 feet high; the Vale of Clwydd, 2496 feet; and Bathurst plains, 1970 feet, above the level of the sea. The highest peaks of the Liverpool range rise between 6000 and 7000 feet. This range is crossed by some frightful ravines, one of which, named by Mr. Oxley, Pandora's Pass, is described by him as being from two to three miles wide at the top, and 3000 feet in depth, while its width at the bottom, which forms the bed of a river, is only between 100 and 200 feet. More practicable passes, however, have been, and are still being discovered across both the Liverpool range and the Blue Mountains. The only volcanic mountain yet discovered in Australia, is situated between the Grampians and the sea, at Portland Bay; it is called by the natives *Mureca*, but Major Mitchell has

given it the name of *Mount Napier*. It is extinct, but vesicular lava is abundant in the neighbourhood.

RIVERS.—The Rivers may be arranged in two classes; those which flow from the dividing range directly to the sea; and those which flow to the interior, and find their ultimate issue by the Murray. Proceeding along the coast from north to south, the rivers of the maritime region occur in the following order:—The *Brisbane* and the *Logan*, which fall into Moreton Bay; the *Perry*, into Shoal Bay; the *Apsley*, into Tryal Bay; the *Hastings*, which terminates in Port Macquarrie; the *Manning*, which divides, near its mouth, into two branches which form Farquhar inlet and Harrington inlet; the *Wallomba*, *Richard*, and *Maclean Rivers*, which fall into Wallis Lake at Cape Hawke; the *Myal* and *Karuah*, into Port Stephens; the *Hunter* rises from the southern flank of the Liverpool range, between 151° and 152° E. long., and flows first to the south-west, where it is joined by the *Goulbourn*, and then turns to the east by south, entering the sea at Port Hunter; the *Hawkesbury*, which terminates in Broken Bay, is formed by the *Macdonald*, *Cole*, *Nepean*, *Wallondilly*, *Coze's River*, and numerous other streams, which drain a large portion of the eastern flank of the Blue Mountains; the *Shoalhaven River* enters the sea at Shoalhaven, to the south of Sydney. In Gipp's Land are the *Thomson*, *Riley*, and *Macarthur*, which flow into Lake King; the *Perry*, *Dunlop*, and *Barney*, which enter the sea in one stream farther south; the *Macnochie* and the *Latrobe*, which also form one stream, and enter the sea to the eastward of Corner Inlet. Farther west the only important stream is the *Glenelg*, which falls into Discovery Bay, to the eastward of Cape Northumberland. These rivers having very short courses, are comparatively unimportant; but several of them are navigable for small vessels to a considerable distance inland.

The **MURRAY** or **MILLEWA** has its sources in the elevated valleys of the south-western flank of the snowy range of the Australian Alps, between 36° and 36° 40' S. lat., and on both sides of the 145th meridian. From the point where it leaves the mountains it flows, with various windings, in a general direction west-north-west till it reaches the 140th meridian, beyond which it turns to the south, and enters Lake Alexandrina at Encounter Bay. It is navigable for boats through the greater part of its course, the length of which, including windings, is probably not much less than 3000 miles. Its principal affluents from the south are the *Wimmera*, *Loddon*, *Yarayne*, *Hovel*, *Goulbourn* or *Bayungun*, the *Orens*, and the *Mittamitta*. The affluents from the north are the *Morumbidgee* and the *Darling*. The Murray was first explored in 1830 by Captain Sturt, who sailed down the stream from the mouth of the Morumbidgee to Lake Alexandrina. The Morumbidgee rises from the northern side of the snowy Alps, and, flowing in a westerly direction, joins the Murray near the 143° E. long., after a course of 1000 miles. It receives from the north the large river *Kalaré* or *Laclun*, which drains the western slopes of the mountains to the south-west of Sydney. The *Darling* or *Karaula* rises south-west of Moreton Bay, and, flowing south-west, joins the Murray between 141° and 142° E. long. Its principal affluents are the *Dumaresque*, *Gwydir*, *Namroy* or *Peel*, *Castlereagh*, *Wamboolor* or *Macquarrie*, and *Bogan*. But the *Darling* is rather a water course than a river; for, in dry seasons, it has sometimes no current, nor even water, for many miles; in the summer of 1840, its channel was dry for thirty miles up from the Murray. When first visited by Captain Sturt, he found its water intensely salt; but, six years later, Major Mitchell found it fresh at the same place, but salt for 1½ mile, about 50 miles lower down. Its affluent the Macquarrie and also the Laclun, when first explored by Mr. Oxley, were found to terminate in wide expanses of water, which gave him reason to conjecture the existence of one or more large inland seas; but these expanses have been since found to exist only in wet seasons, while, on the contrary, in dry seasons, they are only dry clayey tracts, traversed by chains of ponds; so that though they are both large streams in the upper part of their courses, they contribute really very little water to their main rivers. In short, the basin of the Murray and its affluents is estimated to comprise an area of 400,000 square miles, but, as all their water is received only from the mountains on the eastern and southern borders, while the country through which they flow is very arid, instead of increasing, like other rivers, as they proceed, they rather decrease gradually, till at last the bulk of water carried by the Murray to the sea is too small to force a clear navigable outlet. It therefore expands into a large lagoon, about 50 or 60 miles long and 30 broad, but only four feet deep, and salt for one-half of its breadth.

LAKES.—The Lakes are small and unimportant, though very numerous. *Lake George*, in Murray County, was, in 1823, a sheet of water 17 miles long and 7 wide, but in 1836, had dried up to a grassy plain.

NATURAL PRODUCTIONS.—The grand staple product of Australia is wool. Since sheep were first extensively introduced, great improvement has taken place in the quality of the wool, and it has been much more extensively used in the manufacture of fine goods in Britain. In 1830 only 973,330 lbs., or about 5000 bales, were imported into England from New South Wales. In 1844, the collective exports amounted to L.1,349,481; and they are annually increasing. In consequence of the aridity of the climate, and the general barrenness of the soil, agriculture is an anxious and uncertain pursuit. Owing also to the greater profit which is more easily made by sheep, the attention of the colonists has been so much directed to that pursuit, that comparatively little attention is devoted to agriculture, and the colony is very much dependent on supplies of corn from abroad. It has been hitherto supplied chiefly from Van Dieman's Land and the Cape of Good Hope, and sometimes even from North America; but, even with all these supplies provisions have recently risen sometimes almost to famine prices. The aridity which makes agriculture so hazardous and unproductive, is owing, however, not so much to the small quantity of rain which falls, as to the unequal distribution of that quantity throughout the year, and throughout periods of years; deluges of rain being often followed by long-continued droughts. If the actual quantity of rain fell regularly and seasonably, agriculture might in some places succeed as a pursuit, where at present it is merely carried on as subsidiary to grazing, and where it is only possible to carry it on in this way; but in the course of time, when capital accumulates, this irregularity may be partly remedied by artificial irrigation, and large tracts of land now consigned to sterility may be rendered productive. This, however, on a large scale would not be profitable in the present state of the colony; and for many years to come it will be more profitable for the colonists to devote their

principal attention to sheep and cattle, for which they have advantages over all the other nations of the world, and to import all the grain they require, except what is grown in those places which are favourable to its cultivation, such as the alluvial banks of the rivers in the vicinity of the coast. In 1838, the quantity of land under cultivation amounted to 92,912 $\frac{1}{4}$ acres, whereof 48,060 were in wheat; 25,043, in maize; 2922, barley; 3767, oats; 429, rye; 39 $\frac{1}{4}$, millet; 1788, potatoes; 925 $\frac{1}{2}$, tobacco; sown grasses, 9939. And the produce, in that year, was 469,140 bushels of wheat; 556,268 bushels of maize; 32,103 of barley; 13,416 of oats; 4878 of rye; 353 of millet; 3496 tons of potatoes; 4952 cwt. of tobacco; and 6960 tons of hay. But though the country is unfavourable to the production of grain, it is likely that the culture of the vine would succeed; and the experiment has been made to a certain extent. Wine of superior quality has already been produced in some places, and there is no doubt that in many situations good wine may be made in abundance. Coal has been found in various places, as in the district of Hunter's River, among the Blue Mountains and the Darling ranges, and in the Port Phillip district. Mines have been wrought for several years at Newcastle on the river Hunter, by the Australian Agricultural Company, who have exclusive right of working it within the limits of the territory. Coal has also been found near the heads of several of the branches of the Hunter, more than 100 miles from Newcastle, as well as at various intermediate points; and from these indications there seems reason to believe that a continuous bed of coal extends throughout the whole valley of that river, which may, in consequence, hereafter become the great manufacturing district of Australia. New South Wales likewise possesses abundance of iron ore of the richest quality; and in these two articles, coal and iron, is supplied with abundant elements for the future industry and prosperity of a numerous and active population.

The whale fishery has in past years been a source of wealth to several of the enterprising colonists, and it may continue to be so; but this pursuit partakes more of the nature of a gambling speculation than of a regular branch of industry; its profits are so uncertain and precarious. It is nevertheless eagerly pursued. In 1828 the produce amounted to the value of £38,000; in 1835, it had increased to £214,000.

POPULATION.—Besides the few aborigines, of whom we need take no further notice (*See ante*, p. 985), the population consists of British emigrants and their descendants, with the intermixture of a very few other Europeans. The colony was established in January 1788, as a penal station for criminal convicts; and for nearly thirty years continued to make very slow progress in population, very few free emigrants finding their way to it: but, after the general peace in 1814, public attention was directed to Australia as a suitable place for emigrants of a better description than the early settlers. It soon experienced a rapid and continually advancing increase, and, at 31st December 1847, amounted to 205,009. But though the country has been largely indebted to the labour of the convicts, it may yet be doubted whether or not the value of their forced industry is not more than counterbalanced by the moral contamination which they have communicated to the whole society. The first colony, established at Sydney in 1788, consisted of 1030 individuals, of whom more than 700 were convicts. In 1810, the population of the colony amounted to 8293; in 1821, to 29,783; in 1828, to 36,598; in 1833, to 71,070; in 1836, to 77,096, and in 1841 to 130,856. Of that number, 87,298 were males and 43,558 females: whereof free males, 61,074; free females, 40,425. Of the males, 18,802 were married; of the females, 17,551. The number of Roman Catholics was 35,690; of Presbyterians, 13,153; Methodists, 8,236; other Dissenters, 1857; Jews, 856; Mahometans and Pagans, 207; all others, reputed members of the Church of England, 73,727. There were 4477 landed proprietors, merchants, bankers, and members of the liberal professions; 1774, shopkeepers and retailers; 10,715 mechanics and artificers; 12,948 shepherds; 9,825 domestic servants; others, not classified, 72,317.

The greater part of the convicts, upon their arrival, were formerly provided for by being assigned as servants to the free colonists; but, according to a new system recently introduced, all convicts arriving in future are to be transported to Norfolk Island, and are not to be assigned to private individuals during any part of their servitude. After serving for a certain time with a good character, the prisoner becomes entitled to a "ticket of leave," which gives the holder of it all the advantages of a free person throughout the district over which the leave extends. When the ticket is held for a certain number of years without forfeiture for misbehaviour, the holder is entitled to a "conditional pardon," which is not liable to be forfeited at the will of the Government, but is limited in its sphere of operation to the colony, in which respect it differs from an "absolute pardon," which restores the convict to all the rights and

privileges of a British subject. Under the operation of this system, many convicts have become useful members of society, and not a few of them have risen to be the most enterprising and wealthy among the merchants and cultivators. But people of this class are still distinguished by the name of "emancipists;" among many of the free emigrants there is a strong prejudice against associating with them; and through the force of this prejudice a bill introduced by the Government into the legislative council last year (1840) for constituting municipal corporations in the colony, and allowing emancipists to hold municipal offices, was defeated. But, as the emancipists have not "the nobility of the skin" to contend against, like the free negroes of America, this prejudice will no doubt gradually give way, even as respects themselves, while with respect to their descendants, it can hardly, if at all, be said to exist.

RELIGION.—The colonists, like their countrymen at home, are generally professors of Christianity, but the variety of sects and creeds is just as great among them as in Britain. In 1836, there were 77,096 Protestants, 21,895 Roman Catholics, 477 Jews, and 100 Pagans. The ministers of all sects are provided for by the Government, and a seventh part of the whole territory is set apart as church and school lands for the general purposes of religion and education without reference to sect. The English Episcopal church is under the charge of the Bishop of Australia, who is appointed by the Crown, and resides at Sydney. There are also branches of the Church of Scotland, and of various others of the British sects. The Roman Catholics are under the charge of a Vicar-General.

EDUCATION.—Considerable efforts have been made for the diffusion of education; but no general system has yet been established by public authority, though there are many schools which are supported by the Government, and also numerous private seminaries. Of the former there were in 1837–8, thirty-seven for children of members of the Church of England, and eleven for Roman Catholics, besides a considerable number supported partly by Government and partly by private contributions. An attempt was made by the Government in 1839 to introduce a general system of education on popular principles, which was defeated by the Church party, headed by Bishop Broughton. At Sydney there are two colleges; one named the Sydney College, established by private subscription in 1830; and the other named the Australian College, instituted in 1831 on the model of the Scottish universities, with a principal, and professors of English, Latin, Greek, Mathematics, and Natural Philosophy; and combining a series of schools for elementary instruction, with a gradually extending provision for the higher branches of education. At Liverpool and Paramatta there are two establishments called the Male Orphan School and the Female Orphan School, each containing 125 destitute children, who are reared from infancy, educated and apprenticed out, and subsequently portioned when married.

GOVERNMENT.—The executive government is vested in a governor, who is aided by a council, consisting of the colonial secretary and treasurer, and the bishop of Australia; the legislative power is vested in a council, consisting of the governor and executive council, with the addition of the chief-justice, the attorney-general, the chief officer of the customs, the auditor-general, and seven private gentlemen of the colony, who are appointed by the Crown for life. The laws of England are those of the colony, except only in so far as they are affected by the acts of the legislative council. The laws are administered by a supreme court, consisting of a chief judge and two puisne judges, an attorney-general, and a solicitor-general. Circuit courts are held in various places by these judges, for the same purposes as those held by the judges of England in their circuits. There are also courts of general and quarter-sessions held by the justices of peace, with the same powers as those of England, and with the summary cognizance of all crimes, not punishable by death, which are committed by convicts whose sentences have not transpired, or have not been remitted. There is also a vice-admiralty court for maritime causes; an archdeacon's court for clerical matters; and courts of requests for the summary determination of claims not exceeding the value of £10 sterling, with certain exceptions. Juries have been introduced in both civil and criminal cases. Lawsuits are very frequent, and large fortunes have consequently been made by barristers and solicitors. The executive administration of the law is vested in a sheriff of the colony, who has a deputy in each of the counties. The police forms an important establishment, and is well managed. There are benches of stipendiary as well as unpaid magistrates in Sydney and the other principal towns, aided by head constables, and a civil and military police force at each station. The only military force consist of regiments of the line; no militia force has ever been organized. The police law is very strict.

The rapid extension of settlements over Australia renders it expedient that new arrangements should be made from time to time, for the administration of its affairs; and her Majesty's Government have come to the conclusion that it is desirable that the present territory of New South Wales should be divided into three distinct portions or districts, under the names of a northern, a middle, and a southern district. Suspending for the present any directions about the northern district, the Secretary of State, in his dispatch of 31st May 1840, announces that the middle and southern districts are to be divided by the boundaries of the two southern counties of New South Wales, as proclaimed by the governor on 14th October 1829, and from the limits of these counties by the whole course of the river Morumbidgee and the Murray, till it meets the eastern boundary of South Australia; and that the crown lands in both districts shall hereafter be disposed of at the fixed price of £1 sterling per acre. Against this proposal the legislative council have made a strong remonstrance, as tending greatly to injure the prosperity of the middle district; but, if there must be a division, they wish the southern boundary extended along the coast to Cape Howe, and from that point westward along the course of the Murray.

FINANCES.—The public revenues are derived from various sources; their nature and amount are stated in the following table, for the year ending 31st December 1840 :—

	SYDNEY.	Brought over	£422,835	1	6		
Customs,	£182,058	6	6				
Duty on Spirits Distilled in the Colony, and Licenses to Distil,	13,228	14	6				
Licenses to Retail Fermented and Spirituous Liquors,	13,558	10	0				
Auction Duty, and Licenses to Auctioneers,	15,645	18	10				
Post Office,	13,413	1	0				
Fees of Public Offices,	15,318	19	10				
Fines Levied by Courts of Justice and Petty Sessions,	3,556	8	1				
Licenses to Hawkers and Pedlars,	63	0	0				
Collections by the Agent for the Clergy and School Estates,	4,453	13	10				
Crown Lands,	109,484	10	11				
Licenses to Depasture Stock on Crown Lands,	7,735	0	0				
Assessment on Live Stock beyond the Boundaries of Location,	8,542	8	6				
Licenses to Cut Timber on Crown Lands,	657	0	0				
Fines collected by Commissioners of Crown Lands,	131	5	0				
Rents of Tolls, Ferries, Markets, and Government Premises,	3,535	2	11				
Interest on Public Monies deposited in the Colonial Banks,	1,513	16	6				
Crown's share of Seizures made by the Department of Customs,	903	17	4				
Collected for Water supplied to Shipping from her Majesty's Dock Yard,	386	9	9				
Proceeds of the Sale of Public Property,	667	16	9				
Proceeds of the Sale of Property found in the possession of Convicted Felons,	293	4	1				
Proceeds of the Sale of Forfeited and Unclaimed Property in the possession of the Police,	168	1	10				
Sundry small Receipts,	4	0	0				
Surcharges recovered,	299	10	11				
	398,548	8	1				
Proceeds of the Sale of Wheat and Rice imported by Government,	21,286	13	5				
Carry over,	442,835	1	6				
Repayment by Poor Settlers of Wheat distributed to them by Government,				335	14	7	
Proceeds of the Sale of Provisions and Stores landed from Immigrant Ships,				3,303	19	1	
Proceeds of the Sale of Property left on board by Emigrants who Deserted,					14	18	6
				£426,489	13	8	
	PORT PHILLIP.						
Customs,	£21,496	18	8				
Licenses to Retail Fermented and Spirituous Liquors,	1,431	10	0				
Auction Duty, and Licenses to Auctioneers,	3,159	4	0				
Post Office,	778	8	6				
Fees of the Harbour Master's Office, Fees and Fines collected by the several Courts of Petty Sessions,	1,139	8	0				
Licenses to Hawkers and Pedlars,	25	0	0				
Crown Lands,	217,127	16	6				
Licenses to Depasture Stock on Crown Lands,	5,000	0	0				
Assessment on Live Stock beyond the Boundaries of Location,	1,707	5	3				
Licenses to Cut Timber on Crown Lands,	272	0	0				
Fees and Fines collected by Commissioners of Crown Lands,	250	11	3				
Proceeds of the Sale of Government Property,	52	6	0				
Surcharges recovered,	76	2	2				
	252,578	8	4				
Proceeds of the Sale of Provisions and Stores Landed from Immigrant Ships,	1,210	9	8				
Repayment for Equipments retained by Surveyors,	195	0	0				
	253,983	18	0				
Total of both Districts,	£680,473	11	8				

The revenue of the colony in 1824 was only £49,471:3:9, including £279:7:9 for the proceeds of land sold. From that period it has been constantly rising to its present amount.

COMMERCE.—The Commerce consists in exporting the raw produce of the colony, and importing in return the articles required for the use of the colonists. The principal exports consist of wool and whale-oil; and the total amount and value of both

branches of trade, for 14 years, are stated in the following table, which is an abstract of various tables in the Appendix to the Report of the Debate in the Legislative Council, on 10th December 1840, on the subject of the proposed division of territory.

Year.	Imports.	Exports.	Vessels Inwards.		Vessels Outwards.		Quantity of Wool Ex-ported.	Value of Wool Ex-ported.
			No.	Tonnage.	No.	Tonnage.		
1826	£360,000	£106,600	62	17,178	60	17,020	lbs. 552,960	£ 48,381
1827	362,324	76,314	103	26,508	63	14,501	407,116	24,306
1828	570,000	90,050	137	32,559	69	20,186	834,343	48,851
1829	601,004	161,716	158	37,312	168	37,586	1,005,333	63,555
1830	420,480	159,659	157	31,225	147	28,822	899,750	34,907
1831	490,152	324,168	155	34,000	165	35,252	1,401,284	70,979
1832	604,620	381,344	189	41,350	194	42,857	1,515,156	73,559
1833	713,972	394,801	210	50,164	213	49,702	1,734,203	103,692
1834	991,990	587,640	245	58,532	220	53,373	2,246,933	213,628
1835	1,114,805	682,193	260	63,019	269	66,964	3,893,927	299,587
1836	1,237,406	748,624	269	65,415	264	62,834	3,693,241	369,324
1837	1,182,222	747,876	260	67,360	262	64,596	4,273,715	320,527
1838	1,506,803	774,770	291	80,060	273	81,325	5,749,376	405,977
1839	2,236,371	948,776	563	133,474	548	124,776	7,213,584	442,504

Before 1817, the circulating medium consisted principally of the private notes of merchants, traders, shopkeepers, and publicans, sometimes for so small an amount as sixpence. To remedy the evils attending such a state of things, the Bank of New South Wales was established with a capital of £20,000 sterling, raised in £100 shares; which almost from the first has yielded to its shareholders a dividend of from 15 to 20 per cent. The Bank of Australia was instituted in 1826, with a capital of £220,000; but its transactions are limited to discounting bills which have not more than three months to run. It has been highly prosperous, and has paid dividends of from 12 to 15 per cent on the paid up capital. A third bank, named the Commercial Banking Company of Sydney, was instituted in 1834, with a capital of £300,000; and in the same year a London company was incorporated by Royal Charter, under the name of the Bank of Australasia, with a capital of £200,000, for the purpose of establishing banks of issue and deposit, not only in New South Wales, but also in Van Dieman's Land, and other parts of Australasia. The whole amount of British coin in the colony in 1836 was estimated at £445,000; and the amount of bank-notes in circulation, at 31st December of that year, at £99,487. But a great proportion of the circulation is carried on by drafts or cheques on the banks, the mass of pecuniary transactions centering in Sydney, and almost every person of property having an account with one of them, in which, for security, a large portion of his money is lodged.

The more settled parts of the colony are traversed by excellent roads, some of which have been executed by Government at very great expense, especially those leading over the mountains.

DIVISIONS. — The country immediately around Sydney, the capital, is divided into twenty counties, named Argyle, Bathurst, Bligh, Brisbane, Camden, Cook, Cumberland, Durham, Georgiana, Gloucester, King, Macquarrie, Murray, Northumberland, Phillip, Roxburgh, St. Vincent, Wellington, Westmoreland, Hunter. By a proclamation issued by the Government in May 1839, the Crown lands beyond the limits of these counties were divided into nine districts, named: — *Port Macquarrie*, *New England*, *Liverpool Plains*, and *Bligh*, along the northern border, between the sea and the Macquarrie river; *Wellington*, between the Macquarrie and the Lachlan; *Lachlan*, between the Lachlan and the Morumbidgee; *Morumbidgee*, between that river and the Murray; *Maneroo*, on the east coast between the Moruya river and Cape Howe; and *Port Phillip District*, “comprising the whole of the lands lying to the south of the main range, between the rivers Ovens and Goulburn, and adjacent to Port Phillip.” In the last named districts two counties have since been formed, the one named *Bourke*, on the north side, and the other *Grant*, on the west side of Port Phillip.

§ Cities and Towns.

Sydney, the capital, is situate partly in a narrow valley, and partly on the sides of gentle slopes rising from the shores of two of the branches of Port Jackson, named Sydney Cove and Darling Harbour. The streets are long, wide, and quite English in their appearance; the houses are generally lofty and well-built, being interspersed with cottages fronted by small neat gardens, which in

some parts of the town are attached to every house. Along the water side are wharfs, stores, ship-yards, mills, &c.; behind these the houses rise in terraces, giving variety to the scene, and by their neatness and elegance conveying the idea of a prosperous community. Many of the shops are fitted up with great taste; the hotels and inns are numerous and excellent; but the public buildings are neither numerous nor elegant. The government-house, though delightfully situate in a charming desmesne which overlooks the harbour, can scarcely be considered more than an overgrown cottage. The churches, chapels, and meeting-houses are plain and modest structures, except that of the Roman Catholics, in which an attempt at imposing grandeur seems to have absorbed every other idea. The town is about three miles in length, having two-thirds of its circumference washed by the navigable waters of Port Jackson. It was founded by Captain Phillip, the first governor of New South Wales, in January 1788, and now contains a population upwards of 50,000. Sydney Cove is protected by Fort Macquarrie and Dawe's battery, situate on the two points of land at its entrance. Port Jackson is one of the finest harbours in the world. Its entrance, on the east coast, is three-quarters of a mile wide; within, it expands into a spacious basin 15 miles long, in some places 3 wide, and navigable for ships of any burden 15 miles from the entrance, or 7 miles above Sydney; and for 12 miles farther, the Paramatta river, which falls into it, can scarcely be considered more than an estuary. Ships come up close to the wharfs at Sydney, and the cargoes are hoisted at once into the warehouses. On the lofty south head at the entrance a fine lighthouse was erected by Governor Macquarrie. It stands in $33^{\circ} 51' 40''$ S. lat., and $151^{\circ} 16' 50''$ E. long. The light can be seen at the distance of 8 or 10 leagues.

The other principal towns round Sydney are:—*Paramatta*, 18 miles distant by water and 15 by land, at the head of Port Jackson, with 3000 inhabitants, and a large factory or penitentiary for female convicts; *Windsor*, on the Hawkesbury river, 140 miles from the sea, to which it is navigable for vessels of 100 tons; *Richmond*, 35 miles from Sydney; *Liverpool*, on the George river, which falls into Botany Bay, and is navigable for vessels of 70 tons up to the town; *Campbelltown*, 12 miles from Liverpool, all in the county of Cumberland. *Newcastle*, on the coast, at the mouth of Hunter river, is a flourishing town fast rising into importance, not less from its position at the mouth of a fine navigable river, than from the vicinity of the coal mines, which are now actively wrought. *Maitland*, on the Hunter, 25 miles above Newcastle, is also a flourishing town, and the seat of the executive for the county of Northumberland. *Botharst*, an inland town, 122 miles W.N.W. of Sydney.

Melbourne, the capital of Port Phillip District, was founded so lately as 1837; but is already a flourishing town, with good houses, shops, inns, hotels, and several thousand inhabitants. It is finely situate on a rising ground three miles from the northern shore of Port Phillip, on the north bank of the river Yarra-yarra, which is navigable up to the town, a distance of 9 miles, for vessels of 200 tons; but for the accommodation of larger vessels a shipping port has been established at *Williamstown*, on the projecting point of the west side of Hobson's Bay. *Port Phillip* is a beautiful land-locked basin, from 30 to 50 miles in length and breadth, according to the mode of measuring it, and having a narrow entrance, about a mile and a half wide, which opens to the south-west. Ships of the largest size can approach within 7 or 8 miles of Melbourne, on the side farthest from the sea, where they may ride in safety in any weather, there being numerous sandbanks about the middle of the basin, which break the force of the waves when the wind is southerly. It is surrounded by a picturesque and beautiful country. The nucleus of a settlement has been established at *Geelong*, about 50 miles W.S.W. of Melbourne, at the western extremity of a deep indentation or gulf, which extends inland from the west side of Port Phillip; and another on the north-west shore of *Portland Bay*, where there is a rich alluvial soil; and inland, a splendid tract of country westward of the Grampians, with luxuriant pastures and abundant water, lies open for location.

§ 2. South Australia.

This province was established as an experiment on a great scale of a new system of colonization. The various defects in the management of the original Australian colonies, and more particularly the wide spreading out of the population, which tended to deteriorate society, or at least to obstruct the advancement of social improvement, and the moral contamination produced by so large an infusion of convicts, having engaged the attention of several political inquirers, they promulgated a very simple principle, by which not only these defects should be obviated, but a superior colony established with all the vigour and resources of the others, and securing the enjoyment of comfort, happiness, and morality, on the part of the settlers. The principle was, that convict labourers can be dispensed with, abundance of free labourers supplied, and the evils of dispersion avoided by this obvious expedient, namely, that no land should be granted as a free gift, but sold at a price sufficient to defray the expense of procuring labourers from the mother country to cultivate it, and make it available; and that the whole price should be applied exclusively to that purpose. By this means the proper gradation would be preserved between the capitalist and the labourer, and the land be duly cultivated, because it could only be acquired by persons of adequate means; while facilities would be given for introducing a virtuous labouring population of free emigrants, who would have no prospect of raising themselves above their natural rank and vocation, except by industrious exertion. These projectors had influence enough to force their views on the attention of Government; and in 1834 an act of Parliament was obtained for establishing a colony on the principles adverted to. The act provides for the erection of a province under the name of South Australia, extending from the 132° to the 141° E. long. and from the south coast, including the adjacent islands, northward to the tropic of Capricorn. The whole territory within these limits to be open to settlement by British subjects; not to be governed by laws applying to other parts of Australia, but only by those enacted expressly for this colony; in no case to be employed as a station for transported convicts; no waste or public lands to become private property, save by one means only, viz. by purchase at a fixed minimum price, or as much above that price as the competition of public auction may determine; the whole of the purchase money to be employed in conveying labourers, natives of the British islands, to the

colony, so that the purchasers of land may obtain the greatest amount of labour wherewith to cultivate the land, and of population to enhance its value. The whole process is to be under the charge of Commissioners appointed by the Crown, who are empowered to borrow money, and whose authority is "to continue until the colony having attained a certain population, shall, through the means of a representative assembly, to be called by his (or her) Majesty, undertake to discharge the colonial debt, and to defray the cost of future government; when the colony is to receive such a constitution of local government as his (or her) Majesty, with the advice of the Privy Council, and with the authority of Parliament, may deem most desirable." The population of the province must amount to 50,000 at least, before it be lawful for the Crown to frame a constitution of local government for the colony. The province, as above defined, contains an area of nearly 300,000 square English miles, or 192,000,000 acres.

The most highly-coloured and flattering accounts of the beauty, salubrity, and agricultural capabilities of the province were published in Britain, and thereby several thousand people were induced to try their fortune in this terrestrial paradise, but only to be disappointed; for the country has proved to be, like all the rest of Australia, generally ill adapted for agriculture, and the most of it suited only for pasturage. The principle of concentration has been in consequence entirely abandoned; the sale of land has ceased to be confined to the narrow tract originally laid out in sections; speculators are picking out the best lands, for which they obtain special surveys, in every accessible part of the province; and the people are spreading in all directions, in order to suit themselves to the circumstances of the country; while, at the same time, the moral pestilence, which was dreaded so much, has been introduced by emancipists and runaway convicts from New South Wales and Van Dieman's Land. This experiment in colonization would indeed have proved a complete failure, but for the vicinity of these two older colonies, from which alone the requisite number of sheep and cattle to stock the new settlements of South Australia could have been procured at such an expense as the colonists could bear. So that, instead of the virtuous, happy, and concentrated agricultural population which was contemplated, there will be only a scattered pastoral people in the interior, while those on the coasts are devoting themselves to whale-fishing and maritime and commercial pursuits. Still, however, as might be expected in so large a province, there are tracts of rich soil capable of producing abundant cereal crops; and the climate is much more humid than that of New South Wales, which is sometimes parched up by long-continued droughts, while frequent rains fall in South Australia, brought by the south-west winds, which prevail for nine months in the year. But, notwithstanding these advantages, it is admitted that for a series of years, the prosperity of the colony must mainly depend on its herds and flocks.

While private speculators have thus been obliged to alter their views, the public affairs of the colony have been so mismanaged, or at least the previous calculations of expense have been so much exceeded, that the Commissioners have been obliged, after expending all the money that has come into their hands, to apply to Government for pecuniary assistance, which has been given them by a vote of credit for £155,000.

The greater part of the province is still unexplored, and it is only of the south-eastern portion, along the coasts of Spencer's and St. Vincent's Gulfs and Encounter Bay, that any thing is known. The first settlements were formed in December 1836, on the east side of the Gulf of St. Vincent, about fifty miles from the ocean, and the city of Adelaide founded there, in one of the most singularly unfortunate spots, we believe, ever selected for the site of a capital. It is six miles from the sea, on the banks of an unnavigable river, which has been very appropriately named the Torrens, for it is in fact a torrent, with a continuous stream in winter, but presents in summer only a chain of pools, and terminates before reaching the sea, in a marshy flat named the Reed Beds. The town and neighbouring country were laid out in sections; speculation in lots rose to a perfect mania; the most extravagant prices were given for building ground; for a time the new city made the most rapid progress, being supported by the continual influx of immigrants; and the population soon exceeded 6000 inhabitants. But the tide of immigration has been diverted to the more eligible station of Port Lincoln, on the south-western shore of Spencer's Gulf, which will now probably become the centre of South Australian colonization, while Adelaide, from its disadvantageous situation, and having nothing intrinsic to support it, will consequently decline, or at best remain stationary.

The two gulfs already mentioned form very deep indentations in the southern coast, and are separated from each other only by a long, narrow, and barren jutland,

named York Peninsula, which terminates with Cape Spencer. Between the Gulf of St. Vincent, and the Lake Alexandrina and the lower Murray, there is another peninsula terminating with Cape Jervis, and intersected by three great mountain masses, named the *Mount Lofty*, *Mount Barker* or *Great Ironstone*, and *Mount Wakefield* ranges, which form among them table-lands and valleys of considerable elevation, presenting a beautifully undulating and lightly wooded country. But in some places there are sharp precipitous ridges, rising from 1800 to 2000 feet. This tract is roughly estimated to consist of one-third of sandy soil adapted for agriculture or pasturage, one-third of stringy-bark forest, and the remaining one-third is covered with brush-wood or rock, which might perhaps be suitable for the vine. From the vicinity of Adelaide, a range of barren heights extends northward along the eastern side of both gulfs, rising in some places to a considerable elevation, and terminating, in 29° 20' S., with Flinders' range, which is inclosed in a peninsula formed by one of the most singular lakes yet known. This lake commences not far from the head of Spencer's Gulf, takes a circuitous course of fully 400 miles, with a breadth of from 20 to 30 miles, following the sweep of Flinders' range, and nearly encircling it in the form of a horse-shoe. The greater part, however, of the vast area contained in its bed is, or at least at the time of the discovery was, dry on the surface, and consisted of a mixture of sand and mud of so soft and yielding a character as to render perfectly ineffectual all attempts to cross it, so as to reach the edge of the water, which appeared to be at the distance of two or three miles. It was discovered by Mr Espy in 1840; but on one occasion only was he able to reach and taste the water, which proved to be as salt as that of the sea. The whole region surrounding it appeared to be one vast low and dreary waste. He named it *Lake Torrens*, in honour of Colonel Torrens, the great promoter of the colony. The south-eastern portion, however, of the supposed lake has been subsequently visited by other travellers, and found not to exist. Instead of it they found only a low, sandy, salt plain. Such a country seemed to offer no inducement to the extension of settlements in that direction; but more lately, in the hills to the northward of Adelaide, have been discovered very rich ores of copper and lead, easily worked, and favourably situate for transport to the sea. Some of the ores consist of almost pure copper; and near Mount Arden, about 45 miles from the head of Spencer's Gulf, there is a conical hill, said to be literally a mass of Copper, which it would take ages to remove.

The best and most fertile portion of the colony seems to be that to the east of Adelaide, between the Gulf of St. Vincent and Lake Alexandrina, where several portions of rich soil have been found inter-spersed amidst extensive tracts fit only for pasturage. The whole of it, however, is beautiful in appearance, very moderately wooded, principally with oaks and mimosas, and contains abundance of emus and kangaroos. The banks of the Murray afford an inexhaustible supply of wood for fuel; but no coal has yet been discovered in the province. *Lake Alexandrina* is a large expanse of water, 50 miles in length, by 20 or 30 in breadth, formed by the river Murray, the free outlet of which has been dammed up by a sandy ridge, which extends along the shore of Encounter Bay. The lake is partly fresh, partly brackish, and partly salt, and has a depth of only four feet, with a bottom of mud; the eastern part of it forms a distinct basin about 50 miles in circumference, which has been named *Lake Albert*, and is surrounded by a fine country. The south side, however, of Lake Alexandrina is not one continuous ridge of land; it consists of several islands, the largest of which is skirted on the east by Sturt's boat channel, while the main channel or outlet of the lake runs close into the mainland to the westward of the island for a space of 16 miles, and joins Sturt's outlet at the distance of less than a mile from the sand-hills on the coast. This channel forms a noble stream, with a width varying from 500 yards to a mile and a-half, and a depth of from 4 to 10 fathoms. On its western bank are several fine fresh-water inlets, with deep water, forming so many natural and ready made wharfs. In September 1840, a navigable channel, from the sea into this river, was discovered by Mr. Pullen, the colonial marine surveyor, containing a depth of 12 or 13 feet over the bar at high water, but surrounded by shoals and breakers. The governor has given it the name of *Port Pullen*; and there is every reason to think that in moderate weather steamers, and in leading winds sailing vessels, of six feet draught of water or under, may with safety run into the Murray; while in rough weather there will be shelter for such vessels at *Rosetta Cove*, *Victor Harbour*, and *Fretman's Nob*, from 9 to 14 miles distant. The country to the eastward, along the coast, forms a low and sandy shore.

The *City of Adelaide* is built on two limestone heights, on the opposite banks of a chain of pools named the *Torrens*, in a bare sandy tract, six miles from the sea, and about four miles from the Mount

Lofty range of hills. It consists of two towns, laid out in regular streets, but the houses are built of every kind of material, from the humble mud hut to the neat brick building with plastered front. A spacious government house has also been erected at the cost of £15,000! The only supply of good water is from very deep wells dug with great labour and expense in the sandy soil, the water of the Torrens being bad and unwholesome. The city has two ports on the east side of St. Vincent's Gulf. The one, named *Port Adelaide*, 7 miles north-west of the city, is a muddy salt-water creek about seven miles in length, and about 70 yards wide at the entrance, with two bars, over which there are 10 or 12 feet of water in ordinary tides. The country around is low and swampy, frequently overflowed, affording little or no shelter for the shipping; and vessels cannot put to sea out of it without a fair wind, the channel being so very narrow as to prevent the possibility of working to windward. Great exertions, however, are making to improve it; and a railroad to connect it with the city is in contemplation. The houses at the port are built on a glaring and loose sand-hill. The other port, named *Glenside*, is about the same distance to the south-west of Adelaide, also at the entrance of a creek, which is the occasional mouth of the Torrens, when it has water enough to reach the sea. Ships anchor in Holdfast Bay, an open roadstead, quite exposed to the south-westerly gales, which cause a tremendous sea to run into it; and for nine months in the year the wind is from that quarter.

Port Lincoln is a magnificent harbour, or rather a series of three harbours, with two entrances formed by Boston Island, but nevertheless mostly land-locked. It is of a semicircular form, almost surrounded by hills wooded to the water's edge, sufficiently high to be picturesque, but neither so high nor so steep as to form a barrier to the interior. Deep water close in shore washes a beach of gravel or stones, except on the south side, where for a short space it is sandy and comparatively shallow. The hills are generally of one character, open she-oak forest somewhat stunted rising from a soil six or eight inches in depth, over a stratum of limestone. Some of the hills, however, are barren, and covered with granite or ironstone; but most of them have sufficient grass for pasturing sheep, while the valleys might support a limited number of cattle, or partly admit of cultivation. The scenery is splendid, but the country beyond, and towards the interior, seems not to be very inviting in point of fertility and adaptation for culture. Nearly opposite Port Lincoln, on the eastern shore of Spencer's Gulf, is an available harbour named *Port Victoria*; and on the eastern side of York Peninsula, nearly in the latitude of Port Adelaide, is a safe and commodious anchorage, which has been named *Port St. Vincent*.

§ 3. Western Australia.

This province lies between 31° and 35° S. lat., and 115° and 126° E. long.; in the south-western corner of Australia. The distinguishing features of the territory are three distinct parallel ranges of primitive mountains bordering on the sea coast in the direction of north and south. The highest and most easterly range terminates near King George's Sound; the second, named the Darling Range, passes behind the Swan River, and terminates with Cape Chatham; the third and lowest range extends from Cape Leeuwin to Cape Naturaliste; but 300 miles farther north, another range appears on the coast in the same line of direction, and is probably a continuation of the same formation. Indeed both the soil and the climate are much the same as in the other parts of Southern Australia, the country being generally better adapted for pasturage than for agriculture. So far as it has yet been occupied, the territory appears to rest on a granitic basis, and the soil is very thin. The wet season commences in April with slight showers, which continue to increase in number and force throughout May, June, and July; after which they begin to decrease, until they cease altogether in November, when the dry weather begins. These two seasons, with an intermediate spring following the conclusion of each, embrace the circle of the year. The wet season is usually called the winter, and the dry season the summer; but neither of them has the character of the corresponding season in Europe. The prevailing wind at sea, off Cape Leeuwin, is westerly throughout the year; but on the coasts, during summer, there is a regular daily alternation of land and sea breezes. In winter, gales from the north-west and south-west are very frequent, and are usually accompanied by heavy falls of rain. In summer the atmosphere retains so little moisture, that none but hardy and fibrous plants can withstand the drought; the atmosphere is then so clear, and the reflection of the sun so great, that the thermometer, in the shade and near the ground, sometimes reaches 105° . The hottest months are January, February, and March; but the evenings and mornings are generally cool and pleasant; the mid-day heats are tempered by a refreshing sea-breeze from the south-west; and a land breeze from the east prevails in the morning. Slight fogs occasionally hang over the rivers, and a refreshing dew falls at night; but as there are no considerable marshes, the country is free from malaria and noxious vapours. The winter months are June, July, and August; the two latter of which are the most rainy. There are sometimes smart frosts, and now and then a little ice; but all traces of them disappear at sunrise. Hailstones of very large size occasionally fall; but snow is unknown. The greater part, however, of the winter is remarkably temperate and fine, but the changes of temperature are often sudden; and during the rest of the year nothing can be more delightful than the climate generally, and its invigorating influence on the human constitution renders it very suitable for invalids. The principal diseases are rheumatism, dysentery, scurvy, and catarrh, in winter; and, in summer and autumn, a kind of subacute purulent ophthalmia, which is endemic, and is the only disease that can be strictly so considered. Cases of fever are seldom met with. The average mean temperature of the year is from 60° to 64° ; the seasons have hitherto been found to return steadily

and uniformly; and the agriculturist is enabled to carry on his operations with less interruption than in any other part of the world. All kinds of domestic animals generally thrive well; but sheep and cattle are sometimes attacked with a disease which carries them off in a few minutes. The disease has chiefly appeared in flocks recently imported and in feeble condition, and in cattle engaged in long journeys in the bush, where the food is scrubby and coarse. Flocks kept on low damp ground near the coast, or in high scrubby ground destitute of healthy grass, or in passing the Darling range into the interior through a scrubby country, have too been generally affected. Horses are fed on the same ground without the smallest injury.

This colony was established in 1829. The settlers at first met with many difficulties and discouragements; the land near the coast was found to be poor and sandy; but, subsequently, on exploring the interior, fine pastoral and agricultural tracts have been discovered; the gradual introduction and multiplication of sheep and cattle, has begun to enrich the settlers; and the colony is at last, though slowly, beginning to prosper. At the end of 1829, the number of residents in the colony was 850; in 1839, the number had increased only to 2154, of whom 1302 were males, and 852 females. The colony has a lieutenant-governor, and a legislative council appointed by the Crown; but the laws are still strictly those of England, so far as they are applicable to the circumstances of the country. The territory has been divided into fourteen counties, named *Twiss, Perth, York, Murray, Grantham, Wellington, Wicklow, Sussex, Nelson, Lanark, Goderich, Stirling, Hay, and Plantagenet*; but these are far from being generally occupied. The principal part of the colonists were established on the *Swan river*, a considerable stream which flows into Cockburn Sound, on the west coast; the remainder are settled at *King George's Sound*, on the south-east coast; and it is principally from these two points that the settlements are extending. A company has been formed in London for the purpose of establishing a new colony at *Port Leschenault*, on the coast of the *Baie du Geographe*, in *Wellington county*, about midway between the two older settlements; to which the name of *Australind* has been given. The principal towns are *Perth* and *Freemantle* on the *Swan river*, and *Albany* on *King George's Sound*.

§ 4. North Australia.

This province forms the most northern part of the continent, and extends westward from the Gulf of Carpentaria, corresponding with the *Arnhem's Land* of the Dutch navigators. The only settlement yet established is at *Port Essington*, a deep indentation on the north side of *Cobourg Peninsula*, where a new town named *Victoria* was founded in 1838. The harbour is a splendid one; the deep-water anchorage under *Point Record* would contain twenty-five sail of the line; and in and about the anchorage off *Victoria* 500 sail of merchant-men might lie. The outer anchorage or roads is capable of containing the whole British navy.

North Australia is within the range of the Indian monsoons, of which the north-west usually sets in about the beginning of November, and that from the south-east in the early part of April; but they sometimes vary a whole month in the periods of their recurrence. The average annual temperature at *Melville island*, to the westward of the peninsula, is about 83° ; the average winter temperature, 80° ; of summer, 86° ; and the extremes are 75° and 87° . During the rainy season in the first year of the settlement, the heat was oppressive; very little rain fell, and the thermometer on shore in the tents seldom fell, during the day, below 95° ; it generally stood at 100° . On board it varied from 80° to 90° . The nights on shore were, however, comparatively cool, no cases of sickness occurred, with the exception of extreme annoyance from mosquitoes and sand flies the climate proved most healthy. A south wind from the interior raises the temperature with extreme suddenness. The summer monsoon is attended with very heavy falls of rain; but these seldom continue above two or three hours at a time. From June till September no rain falls; a great quantity of moisture must nevertheless be always suspended in the atmosphere, even during the prevalence of the dry or south-east monsoon; for iron articles are kept from rusting only by incessant care; and the exposed surfaces of the rocks along the coasts, are so generally coloured by the oxide of iron, that they might, without impropriety, be described as red. Among the native fruits and plants have been found a species of nutmeg of fine flavour, and the cotton-tree; and there is no doubt that every kind of spice, with sugar, rice, and cotton, might be produced in this province.

Norfolk Island, 900 miles E.S.E. of Sydney, in $29^{\circ} 1' S.$ lat. and $168^{\circ} 10' E.$ long., contains about 11,000 acres of land, generally of a rich brown mould. It is extremely beautiful, affording fine tropical scenery of hill and dale. It produces the New Zealand flax of great size, and several cabbage palms.

but the most peculiar and valuable part of its vegetation is the magnificent *araucaria excelsa*, or Norfolk Island pine. In 1791 it was colonized by the government of New South Wales, for the purpose of raising supplies for that colony; but is now used as a prison exclusively for convicts, where they are to be subjected to a new plan of treatment introduced by Captain Macconochie, and which is expected to produce the best effects in reforming them, and fitting them to be restored as useful members to society. Between Norfolk Island and the coast of Australia there are several small islands and reefs scattered over the ocean. The principal of these are: *Lord Howe's Island*; *Seringapatam Island*; *Middleton's Island*; *Nelson Bank*, and *Solitary Isles*.

TASMANIA or VAN DIEMAN'S LAND.

SITUATION AND EXTENT.—Between $41^{\circ} 20'$ and $33^{\circ} 40'$ S. lat., and $144^{\circ} 40'$ and $148^{\circ} 20'$ E. long. The greatest extent from north to south is estimated at about 210 miles, and from east to west, about 150; the superficial area contains about 24,000 square English miles, or a little less than Ireland.

GENERAL ASPECT.—The face of the interior is very diversified, and decidedly mountainous. It consists, however, not of mountain ranges, but rather of isolated peaks, varied by lofty table-lands and extensive fertile valleys and plains. In the south, nothing can be more rude or bold than the general appearance of the landscape; hills rising above hills, all thickly covered with trees, with here and there a majestic rocky eminence towering aloft, form the prospect. On proceeding into the interior, the country loses much of its stern and forbidding aspect; there many fine open spots are found very lightly timbered, and extending in some instances for several miles, but always locked by mountains. Near the middle of the island there are beautiful plains, intersected in some places by streams, and extending as far as the eye can reach; and, on proceeding northward, every diversity of hill and dale, woodland and plain, forest and tillage, enlivens the scene. The western portions have as yet been but imperfectly explored; but they are represented as generally bold and mountainous, although possessing well watered and fertile spots. Much of the land in that direction, as well as that towards the east coast, lies high and exposed.

MOUNTAINS.—There are several mountains of great elevation. *Mount Wellington* or *Table Mountain* rises 3795 feet above the level of the sea, behind Hobart-town. It has a bold and rugged aspect and is snowcapped for eight months of the year, but is seldom obscured by clouds. The mountains on the south-west coast, near Port Davey, are still higher, and are snowcapped for a great part of the year. They form a long mass stretching inward for several miles, and rise in some places 5000 feet. The hilly character, indeed, of the southern side of the island is but little interrupted, the hills being not only frequent but continuous. Some of the principal masses have been named: *Mount Direction*, *Frankland Hills*, *Arthur Hills*, the *Hartz Mountains*, *Adamson Peak*, *Mount De Witt*, all in the south-west, between Port Macquarrie and Storm Bay. In the north-east, *Bentley* rises 4200 feet. The *Table Mountain*, in Tumbidge county, near the centre of the island, rises 3800 feet; the *Peak of Teneriffe* or *Wylde's Craig*, 15 miles N. W. of Hobart-town, 4500; *Quamby's Bluff*, south-west of Launceston, 3500; *Mount Field*, 3000; *St. Paul's Dome*, 42 miles S. E. of Launceston, 2500.

RIVERS AND LAKES.—The *Derwent* issues from *Lake St. Clare*, which is 10 miles in length by 3 in breadth, 70 miles N. of Hobart-town, and flows to the south-east, where it forms a noble estuary, terminating in Storm Bay. It varies in width from its entrance to Hobart-town from 6 to 12 miles, having every where deep water, without rocks or sandbanks, and is navigable at all seasons with perfect ease and safety. Its principal affluents are: the *Nive*, the *Dee* from *Echo Lake*, a small circular basin; the *Ouse*, joined by the *Shannon* from the *Clarence* or *Great Lake*, a large and beautiful mass of water in Westmoreland county, about 150 miles in circumference, following the winding of its shores; the *Clyde* from *Crescent Lake* at the foot of Table Mountain; the *Jordan* from *Lake Tiberias* in Monmouth county, 30 miles N. of Hobart-town; all on the left. On the right it receives no important affluent, that side of its bed being bordered by a continuous series of hills, which pour down only small streams, with short and rapid courses.

The *Huon* flows from *Peder Lake*, at the foot of the Frankland hills, and forms a fine estuary which opens into D'Entrecasteaux channel, south-west of Hobart-town.

The *Tamar* is a long estuary formed by the junction of the *North Esk* and the *South Esk*, at Launceston, and extending northward to Bass's Strait. It is navigable to Launceston, but requires great skill and management to take up or down large vessels with safety, on account of a bar and other intricacies. The *North Esk* and the *South Esk* have their sources in the hill country eastward of Launceston. The principal affluent of the latter is the *Macquarrie* from the *Nineteen Lagoons* in Somerset county.

Along the north coast are: *Piper's River*, to the east of the Tamar, the *Rubicon*, *Mersey*, *Don*, *Furth*, *Leven*, *Blythe*, *Emu*, *Cam*, *Tret*, *Duck*, *Montigue*, *Welcome*, all to the west. On the west coast: the *Arthur* and *Hellyer*; *Pedder*; *King's River*; the *Gordon*, which runs into Macquarrie Harbour; the *Davey*. On the east coast is the *Prosser*. Besides the lakes already mentioned, there are *LaVe Sorell*, a large round basin, near the middle of the island; *Arthur Lakes*, two large masses of water a little to the north-west of Lake Sorell, and which are connected by running streams with each other and with *Wood Lake*, a small basin to the south; their outlet is *Lake River*, an affluent of the Macquarrie; *Petrarch Lake*, whose outlet, the river *Cuvier*, flows to Lake St. Clare; *Edgar Lake*, whose outlet is one of the feeders of the Huon river.

BAYS, GULFS, &c—Besides the estuaries of the Derwent and the Tamar, there are numerous other bays and harbours which afford secure anchorage. *Storm Bay* is a large open gulf on the south-east coast, between Tasman Peninsula and Brunel Island. It terminates inland with the *Derwent*. *Frederick Henry's Bay*, and *Norfolk Bay* or *Port Bunche*. Inside of the Derwent is a land-locked gulf named *Ralph Bay*. *D'Entrecasteaux Channel* extends upwards of 40 miles in length, between the mainland on the west, and Brunel Island on the east side, which divides it from Storm Bay. It forms a navigable passage to the Derwent, with the mouth of which it communicates by a narrow strait. On its west side are the estuary of the *Huon* and *Swan-Port*, *Esperance Bay* or *Adamson's Harbour*; *South-Port* or *Muscle Bay*, and *Recherche Bay*. On the east side of Brunel Island is *Adventure Bay*, a large, open gulf; and, at its south end, *Bad Bay*. On the west side of Tasman's Peninsula is *Wedge Bay*;

on the south side, *Port Arthur*, the penal station of the colony; on the east side, *Fortesque Bay*, and *Monge or Pirate's Bay*. Farther north, and along the east coast of the island, are: *Frederick Hendrick's Bay*, *Marion Bay*, *Prosser's Bay*, *Spring Bay* or *Port Monbasin*, *Grindstone Bay*, *Little Swan-Port*, *Oyster Bay*, a large open gulf between the mainland and a long peninsula terminating with *Geographic Strait*, which divides it from Schouten island; the *Great Swan-Port*, at the head of Oyster Bay; *Thouin Bay*, on the east or outside of the peninsula; *George Bay*, *Anson Bay*, a river. On the north coast: *Ringarooma Bay*, *Port Dalrymple*, the mouth of the Tamar; *Port Sorrel*, *Port Frederick*, *Emu Bay*, *Freestone Cove*, *Pebbly Bay*, *East Bay*, and *West Bay*, on the opposite sides of the isthmus of Circular Head; and *Duck Bay*. On the west coast: *Studdland Bay*, *Marquarrie Harb'w*, a large land-locked basin, 22 miles in length, and from five to seven in breadth, with a narrow entrance to the north-west; *Port Davey*, a deep indentation of the south-west coast, with *Cockburn Cove* on the one side, and *Lathurst Harbour* on the other.

ISLANDS, ROCKS, PENINSULAS.—*Fraser or Erani Island*, between Storm Bay and D'Entrecasteaux Channel is 35 miles in length, but very narrow, and consists of two peninsulas joined by a very narrow isthmus. *Betsy Island*, and *Ironpot Island*, two islets near the mouth of the Derwent. *Tasman's Peninsula*, 27 miles in length by 16 in breadth, on the east side of Storm Bay, is connected by a narrow isthmus with a smaller peninsula named *Forrester*. This peninsula is now the penal station of the colony; the principal settlement of which is at Port Arthur; and a strong military guard is kept at the isthmus which connects Forrester with the mainland. Off the south-east point of Tasman's Peninsula is the small island named *Tasman's Island* or *The Pillar*. *Maria Island*, on the east coast, 13 miles long, consists of two peninsulas, in the most northerly of which is a mountain mass, named the Bishop and Clerk, rising 300 feet above the level of the sea. Off the north point is the *He du Nord*, or *Green Island*; and between Maria Island and the mainland, is *Lachlan or Middle Island*. *Schouten Island*, at the south-east side of Oyster Bay. Off its south point is *Tailor's Island*; and opposite the mouth of Oyster Bay is the *White Rock* or *Sail Island*. *King George's Rocks*, *Black Rocks*, *Swan Isles*, *Fameux's Islands*, and *Kent's Islands*, lie off the north-east coast, in Bass's Straits. The largest of Furneaux's Islands, named *Flinders or Great Island*, is now the abode of the small remnant of the natives of Van Diemen's Land, who have been transported to it by the Colonial government. *Waterhouse Island* and *Little Island*, on the west side of Ringarooma Bay. *Hebe Reef*, at the mouth of Port Dalrymple. *Circular Head*, a peninsula projecting 7 miles, near the west end of the north coast. *Hunter Island*, a group of large islands off the north-west point of Van Diemen's Land; and named *Barren Island*, *Albatross Island*, *Three Hammock Island*, *Walker's Island*, *Robbin Island*, *Perkin's Island*, *Petrel Isles*, *Langum Island*, *Stack Island*, *Harbour Island*, *Long Island*, *Short Island*, *Trefoil Island*, *Sheephead Island*, *Black Rock*, &c. *King's Island*, a large island in the middle of the western part of Bass's Strait. *Pyramid Island*, on the north side of Point Hibbs, on the west coast. *De Witt's* or *Matuiken Islands*, *Needle Rock*, and *Isle du Golle*, on the south coast, between South Cape and South-west Cape.

CAPES.—On the north coast: *Circular Head*, a mass of basalt, exactly resembling a huge round tower or fortress; *Rocky Cape*, *Tattle Cape*, *Westhead* of Port Sorrel, *Point Flinders*, *Face-me Buff*, *Stoney Head*, *Double Sandy Point*, *Waterhouse Point*, and *Cape Portland*. On the east coast: *Eddystone Point*, *Grant's Point* and *St. Helen's Point*, both at the entrance of George River; *Cape Lodi*, *Cape Tourville*, *Cape Forrester*, *Cape Dejeando*, and *Cape Somerset*, on the east, outside of Oyster Bay; *Cape Brilli*, *Cape Bougainville*, *Cape Bernier*, *Cape Frederick Hendrick*, *Cape Surville*, *Cape Piton*, the most southerly point of Maria Island; *Cape Pillar*, the south-east, and *Cape Raoul*, the south-west point of Tasman's Peninsula; *Cape Frederick Hendrick*, *Fluted Cape*, a beautiful mass of talcatic columns, which rise like the barrels of an organ, and *Tasman Head*, on the east side of Brunel Island; *Cape Brunel*, the south-west point of the same island. On the south coast: *Whale Head*, *South Cape*, and *South-west Cape*. On the west coast: *Cape Grim*, *Green Point*, *West Point*, *Bluff Point*, *Ordnance Point*, *Sandy Cape*, *Cape Sorrel*, at the entrance of Macquarrie Harbour, *Point Hibbs*, *High Rocks*, two peninsular promontories, and *Rocky Point*.

GEOLOGY, &c.—Trap is believed to form the principal substratum of the island. All along the coast it presents itself in precipitous rocky heights standing on beautiful columnar pedestals; and, in the interior, Mount Wellington, the Western Table Mountain, and the precipitous banks of many of the mountain streams are composed of it. In some places the columns appear in isolated masses, springing up at once from the surface, like obelisks or huge needles, and present a very singular appearance. Argil appears in the form of excellent roofing slate; and in the form of mica it is found in large masses on the rocks around Port Davey, where it is so much worn by the weather as to assume the appearance of snow. Excellent sandstone for building is found in almost every part of the island; flints in great plenty are scattered on the hills; and other species of silicious matter are found in various places, as hornstone, schistus, wood-opal, bloodstone, jasper, and cat's-eye. Limestone and marble likewise abound, and indications of coal have been found all across the island, from South Cape northward by Hobart-town, Coal River, Jerusalem, Jericho, and other places. Iron ore is also very generally diffused, some of which affords 80 per cent. of the metal; specimens of red and green copper ore, lead, zinc, manganese, and, as some say, of silver and gold, have occasionally been met with. Fossil vegetable remains, entirely converted into silicious matter, and capable of the finest polish, are occasionally found in different places, and we have seen specimens of wood converted into a sort of ironstone, from the bed of the Tamar. The soil is very various; being in some places a rich black alluvial mould, in others, sandy or argillaceous. It produces excellent crops, and may be cultivated for a succession of years without rest or manure.

CLIMATE.—Making allowance for the higher southern latitude, and the greater coolness and humidity arising from its insular position, the climate of Van Diemen's Land is not very different from that of the settled maritime parts of New South Wales. Generally speaking, throughout the summer the atmosphere is cooled by alternate land and sea breezes, the influence of the latter of which is felt at the

distance of many miles from the shore. The average height of the thermometer is 70°, though it occasionally rises to 100°, or even 110°, when a parching hot wind blows from the north or north-west; but this high temperature seldom lasts long, and the rain which always follows it, soon cools the atmosphere. Thunder storms are not frequent, and are never violent. September, October, and November form the spring, when the weather is usually bright and clear, but with occasional rain and high winds. The thermometer during these months has an average range from 50° to 60°. December, January, and February, are the summer months. In general very little rain falls during this season, and the vegetable productions of the earth arrive at maturity about a month earlier than in England. March, April, and May are the autumn, and by far the most pleasant season. The atmosphere is then clear and bright; and the sky is free from clouds and vapours. The average heat is about 65°, and the nights are cool and refreshing. June, July, and August form the winter. In the interior, particularly on high and exposed situations, frosts are sometimes severe; and a good deal of snow falls, but it never lies throughout the day. The winter, indeed, is contemplated by the colonists as a season of moderate and genial rain, which prepares the earth for the ensuing spring, rather than as the cold and dismal season of higher latitudes. The average range of the thermometer is from 40° to 48°; but it sometimes falls for a day or two several degrees lower. The seasons, however, appear to undergo a change every nine or ten years, but varying in intensity every third series or thirty years. But, as a general rule, it may be affirmed that the atmosphere is extremely dry and elastic, and contains a greater proportion of oxygen than in most countries of the old world. It is in consequence very salubrious and fecundating to both animal and vegetable life. In 1839-40, however, the colony was visited by a virulent typhoid fever, which seems to have originated in the gaols.

VEGETABLE PRODUCTIONS.—The vegetable productions are much the same as in the contiguous portions of New South Wales. In many parts of the island there is no underwood; only scattered trees are found shooting up to a great height. Much of the timber is very serviceable, particularly the stringy-bark, gum-trees of several sorts, peppermint wood for building; huon-pine, black and silver mimosas, pencil cedar, and sassafras for interior fittings and cabinet-making. Among the ornamental woods are light-wood, she-oak or beef-tree, honey-suckle, myrtle, and the cherry-tree. All the trees are evergreens, and some of them, particularly the mimosas, put forth very rich blossoms in spring. The foliage, however, is generally dark or sombre green, without any of the agreeable variety presented by forests of deciduous trees. The species and varieties of shrubs and plants are numerous and beautiful: and among the most valuable yet discovered in the island may be enumerated the pepper-tree, the bark of which has been proved to possess many valuable medicinal qualities; and the tea-tree, the leaves of which serve as a substitute for the tea of China. All the cerealia, and every sort of fruit, herb, or vegetable that grows in England thrives equally well in Van Dieman's Land. The vine also arrives at perfection in favourable situations, particularly in the northern districts; and a good imitation of hock is produced in the neighbourhood of Launceston.

ANIMALS.—These also are much the same as in New South Wales. There are three species of kangaroo, differing principally in size; the hyæna-opossum or tiger, which is very destructive to the flocks; and another animal called the devil, of the same species, which is extremely ugly, untameable, and also destructive to the flocks. There are also porcupines, wombats, duck-bills, and wild cats, which destroy the poultry and young lambs; kangaroo rats and mice, opossums of several sorts, and bandicoots, which prey on the potatoe crops. The birds are of various species, and many of them of beautiful plumage; as emus, cocatoos, parrots, parroquets, magpies, the laughing jackass, eagles, hawks, kites, ravens, and crows; gulls, pelicans, king-fishers, black-swans, wild ducks, musk ducks, teal, widgeon, quails, snipes, a species of pigeon of a splendid bronze colour, in flavour resembling a partridge, besides many others. There are several kinds of snakes, some of which are extremely venomous; guanas, lizards, centipedes, scorpions, tarantulas; many curious and beautiful beetles; three or four species of ants, some of which are an inch in length, and sting sharply; various sorts of spiders and musquitoes, and a numerous tribe of the insects which are common in all countries. European domestic animals all thrive well and increase in size; among them are European rats and mice, which have been unwittingly imported with other European stock, and have found their way to all parts of the colony. The inlets and bays around the island swarm with fish, as salmon, perch, rock-cod, bream, mullet, whiting, flatheads, leather-jackets, taylor, parrots, guard-fish, cray-fish, oysters, eels.

skate, and shrimps; one of the most admired fish is called the trumpeter. The lakes and rivers abound with very fine eels; but other freshwater fish are of little note, except the mullet, of which considerable quantities are caught near the falls at New Norfolk. A sea-fish supposed to be a species of toad, and found on the coast, is strongly poisonous. The black whale, during the breeding season, resorts to the deep estuaries, bays, and inlets, and forms a profitable object of pursuit.

PEOPLE.—The aborigines belong to the Ethiopic class, and differ but little from those of Australia, with this exception that they have woolly hair, a perfectly black complexion, with the face and general appearance more nearly resembling those of the African negro. With respect, however, to mental capacity, they are considered to be inferior even to the Australians. They are now very few in number, and the race will probably soon become extinct. The European settlers consist partly of convicts and emancipists, and partly of free settlers, who have been rapidly pouring into the island during the last five-and-twenty years. The free population, in 1824, amounted to 3781 males and 2248 females; in 1838, to 14,692 males and 11,363 females. The number of convicts, in 1824, was 5467 males and 471 females; in 1838, 16,069 males and 2064 females. The military and their families, in 1824, amounted to 266 males and 70 females; in 1838, to 1171 males and 405 females. Total population in 1824, 12,643; in 1838, including aborigines, 45,846. Of the free population, in 1838, 16,094 were classed as belonging to the Church of England; 2551, to the Church of Scotland; 2288 Catholics; 1289 Wesleyan Methodists; 635 Independents; 175 Baptists; 132 Jews; and 80 Quakers. The educated British convicts are now all sent to Port Arthur, on Tasman's Peninsula; young male convicts are also sent there, and placed under teachers qualified to make them useful in several trades; colonial convicts, and prisoners re-convicted, are likewise removed to this great Penitentiary, where they are employed in felling, sawing, cutting, splitting, and loading timber; in building ships, prisons, barracks, &c.; shoemaking, tanning, and in various other ways. They are all subjected to the severest discipline and privations, the tendency of which is utterly to demoralize them, and make them recklessly ferocious. Hence murders among them are of frequent occurrence, without premeditation or cause.

GOVERNMENT.—The Government is precisely similar to that of New South Wales. The chief authority is vested in a lieutenant-governor and executive council, and in a legislative council. There is a supreme court of law with a chief judge and two puisne judges at Hobart-town; but the judges also hold circuit courts in other places.

PRODUCTIVE INDUSTRY.—About two-thirds of the population are employed in agriculture, or dependent on it, about one-third is engaged in commerce; and one-eighth, in arts and manufactures. In 1838, the total quantity of land in crop amounted to 96,639 acres, whereof 41,796 were wheat; 13,525, barley; 21,660, oats; 870, pease; 127, beans; 3548, potatoes; 9164, turnips; 17,760, English grasses; 443, tares. The produce in that year amounted to 551,285 bushels of wheat; 183,604 of barley; 251,491 of oats; 12,460 of pease; 1031 of beans; 11,533 tons of potatoes; 12,396 tons of turnips; and 15,992 tons of hay. The amount of stock, in 1828, was: horses, 2034; cattle, 84,476; sheep, 553,698; goats, 708. In 1838, horses, 9884; cattle, 77,153; sheep, 1,222,511; goats, 2624. The arts and manufactures are various but unimportant in amount, being chiefly confined to such articles as are of immediate necessity, or such as cannot bear the expense of importation, or cannot be conveniently exercised any where else, as brewing, printing, mills, tanning, &c.

The commerce consists in exporting the raw produce of the island, and importing the manufactured produce of other countries. The total value of both branches of trade, for the fifteen years from 1824 to 1838, are stated in the following table; together with the value of the two principal articles of export, whale oil and wool, and the amount of shipping and tonnage.

Year.	Value of Imports.	Value of Exports.	Vessels Inwards.		Vessels Outwards.		Value of Whale Oil Exported.	Value of Wool Exported.
			No.	Tonnage.	No.	Tonnage.		
1824	£62,000	£14,500	33	11,116	35	11,604	....	....
1825	88,161	23,837	52	13,455	54	12,435	....	....
1826	99,747	44,498	54	12,184	56	12,523	....	....
1827	152,627	59,502	97	18,893	91	16,004	....	....
1828	241,382	91,461	131	23,741	133	24,116	....	....
1829	272,189	126,984	110	24,717	111	25,742	....	....
1830	255,298	145,980	101	26,582	92	25,015	....	....
1831	298,774	141,745	94	23,184	102	25,451	....	....
1832	392,666	157,906	142	31,724	128	28,019	....	....
1833	352,894	152,967	167	37,442	159	36,250	....	....
1834	476,617	203,522	150	33,141	134	32,192	....	....
1835	583,646	320,679	234	55,833	225	53,560	£51,398	£142,921
1836	558,240	420,123	292	58,142	274	52,780	52,960	171,009
1837	563,144	540,221	314	60,960	363	57,945	68,757	220,739
1838	702,956	581,475	370	64,454	369	63,392	121,270	171,599

The circulating medium consists partly of specie and partly of the notes of the Derwent, Van Dieman's Land, Commercial, Union, Tamar, and Australasian, banks. The estimated amount of coin in circulation, in 1838, was £136,000; of bank-notes, £54,557.

DIVISIONS.—The settlements of the colonists extend chiefly through the middle of the island, from Port Dalrymple to Storm Bay; few have yet extended towards the east coast, and fewer still, if any, into the western districts. The middle and eastern portions of the island have been divided into the counties of *Kent, Buckingham, Monmouth, Pembroke, Glamorgan, Somerset, Camberland, Westmoreland, Devon, Dorset, and Cornwall*; and these already are, or are intended to be, subdivided into hundreds and parishes.

TOWNS.—**HOBART-TOWN**, the capital, is a large, and in many parts, a neatly built town, on Sullivan's cove, on the right bank of the Derwent, about 20 miles from Storm Bay. The public buildings are numerous, and some of them commodious and handsome. There is only one English episcopal church; but there are several places of worship for other denominations, and the number is regularly increasing. The manufactories of the town consist of distilleries, breweries, tanneries, timber and flour mills, soapworks, and candleworks, &c. Around the town there are handsome villas and enclosures in every direction; and along the water's edge a noble wharf has been constructed, so as to allow vessels of the largest burden to load or unload close along-side. Hobart-town was founded in 1804. The population of the town and district in 1838 amounted to 14,382. Three miles north, on the main road to Launceston, is the pretty village of *Neutown*, remarkable for its elegant and picturesque villas, its race-course, gardens, fine fruit, and bay.

Launceston, 121 miles N. of Hobart-Town, and connected with it by a good road, is situate on a flat of the richest land in the island, backed by gently rising hills, at the confluence of the North Esk and South Esk rivers, which there form the Tamar, 45 miles from its mouth in Bass's Strait. It is a very thriving town, being the centre and the shipping port of a well-inhabited district; vessels of 500 tons come up to the town, and load and unload along the wharfs: the population of the town and district in 1833 amounted to 6136. *Georgetown*, at the mouth of the Tamar, on the right bank, is also a thriving town, where many vessels stop rather than encounter the trouble and the risk of going up to Launceston. In the interior there are several thriving country towns, as *New Norfolk*, on the Derwent, 22 miles above Hobart-town; *Erginton*, and *Richmond*, to the north of Hobart-town, on the east of the river; *Hamilton*, *Bothwell*, and *Grantham*, on the Clyde; *Oatlands*, 40 miles north of Hobart-town, *Longford*, *Perth*, and *Campbelltown*, both to the south of Launceston; *Westbury* and *Deloraine*, both to the west of Launceston; and *Llewellyn*, to the south-east on the South Esk.

NEW ZEALAND.

SITUATION AND EXTENT.—This group of islands is situate in the South Pacific Ocean, between 34° 25' and 47° 19' S. lat., and 166° and 179° E. long., about 1400 miles S.E. of New South Wales. It consists of two large islands and one smaller one, which extend in a line from north to south, about 1100 miles, including the width of the straits which divide them; but the breadth is extremely irregular, varying from 5 miles to 200. Their total area is estimated by some to contain 87,400, and by others, 95,000 square miles, or 55,936,000 acres, two-thirds of which are considered to be capable of cultivation. The most northerly island, named *Eakeinowawe*, is 540 miles in length; but the northern half of it consists of an extremely irregular series of peninsulas, no where exceeding the breadth of 50 miles, while some of the isthmuses are less than five, and one of them is only three miles across. The southern portion is more compact; its smallest breadth being 50 miles, and its greatest, about 200. The southern large island, named *Tarai-Poenamoo*, is about the same length, but is of a more regular form, and varies in breadth from 50 miles to 150. The most southern or small island, named *Stewart's*, is of a compact roundish form, measuring about 50 miles by 40. The coast line, following the various indentations of the land, probably exceeds 3000 miles.

GENERAL ASPECT.—The two large islands are traversed from N.E. to S.W. by a range of lofty mountains, skirting the south-eastern coast of the Northern Island, and approaching the west coast of the Southern Island, which are intersected by beautiful valleys, and watered by fine rivers. In the Southern Island some of the mountains are said to be continually snow-capt, which, in this latitude, would infer an elevation equal to that of the Alps; but they have not yet been explored, nor has their elevation been accurately ascertained. There are likewise several subordinate ranges of hills, and a few detached outlying mountains of vast dimensions, as Mount Egmont on the west coast, and Mount Edgecumbe, on the Bay of Plenty, both volcanic, and the former reaching an elevation of 8839 feet. In the interior several volcanoes are said to be in active operation; and the sides of the mountains in which they are situate contain deep and frightful caverns. A few of the smaller mountains are barren, or clothed only with fern, but the greater number are covered with magnificent forests, containing trees of enormous size, and embracing a great variety of species. Between the mountains and the sea, on both sides, is an immense extent of forest, plain, and pasture land, which is almost every where accessible by means of numerous fine bays and navigable rivers. The coasts of the Northern Island, however, are bounded by a belt of sand hills, within which a series of low flat lands extends for many miles, covered in summer with a reedy vegetation, and, in wet weather, converted into swamps. This forms altogether a large extent of territory, and contains in many instances some of the most valuable land in the country, requiring only to be drained, and redeemed from its present state of uselessness. Seaward, the whole west coast is beset by rocks or shifting barriers of sand.

BAYS, GULFS, AND STRAITS.—On the east side of the Northern Island: *Sandy Bay*; *Namga-Oonou Bay*; *Doubtless or Oudou-Oudou Bay*; *Wangara Bay*, lat. 35° S., a beautiful, romantic, and spacious bay, capable of containing the largest fleet, and affording good anchorage in from 5 to 11 fathoms, completely sheltered from the sea and all winds. The entrance is only 20 yards wide, but there are no hidden dangers, and there is good anchorage outside. The shores are steep, with sufficient depth of water for any vessel within a few yards of them. The *Bay of Islands*, $35^{\circ} 10'$ S., so named by Cook from the number of rocks with which it is studded, is nevertheless a remarkably fine and capacious harbour, and affords shelter in all seasons and in any weather. Its entrance is 11 miles wide; there is deep water close to the shore, and it branches into several fine harbours; the two which are most used by shipping are the *Bay of Kororika* and the river *Kava-kava*. *Wangara*, *Wangamuna*, and *Tutuaka*, are three harbours fit only for small vessels, between the Bay of Islands and *Wangari Bay*, which is an extensive roadstead protected from north to north-east by Bream Head, and with soundings from 6 to 10 fathoms. The *Gulf of Shouraka* or *Houaka* is an open roadstead, with an entrance 16 miles wide, open to the north, and terminating southwards in the estuary of the river Thames. It contains two fine harbours, *Kahu* in the bay of *Valuanga*, and *Waitemata*, which is separated only by a narrow isthmus from the port of Manukao or Manukou, on the west coast. *Witiangi* or *Mercury Bay*, is situate on the eastern or outside of the peninsula of Shouraka, and has a rocky entrance of difficult ingress and egress. The *Bay of Plenty*, a wide expanse of 120 miles, open to the north, between Shouraka and Cape Runaway, contains the harbour of *Tauanga*, a few leagues to the south of Mercury Bay, which is resorted to by small craft, trading for flax. *Tuamooa* or *Poverty Bay*, on the south-east coast of the Northern Island, $38^{\circ} 45'$ S., is in the form of a half-moon, surrounded by a sandy beach. *Hauke's Bay*, 30 miles farther south, a large open, and unsheltered expanse, between 39° and 40° S. lat. *Cook's Strait* divides the two large islands; its western entrance is 58 miles across; its eastern about 18, and the middle, or narrowest part, is 12. A little way within its eastern entrance, on the north side, is *Wangamutera Bay*, or *Port Nicholson*, which extends inward 12 or 14 miles, with a breadth of from 2 to 4, affording safe anchorage and complete shelter for any number of vessels, and containing room to beat out in any wind. It terminates with a large, broad, and deep river. *Palliser Bay*, to the south-west, terminates in a large lagoon. On the west coast of the Northern Island: *Wharo*, an open roadstead, about 20 miles S. of Cape Maria Van Diemen, with good anchorage on a firm, tenacious sandy beach. *Whangapi*, 20 miles S. of Wharo, extends 6 or 7 miles inland, gradually widening, from 200 yards at the entrance, till it expands into a beautiful bay, measuring 6 miles by 3. Hills rise abruptly to a great height on both sides of the entrance, and are covered with forests; but round the bay, between it and the hills, there is a space of fine flat land, from a quarter of a mile to 2 miles in breadth, which is clear of wood. *Hokianga*, a beautiful estuary, 80 miles S.E. of Cape Maria Van Diemen, in $35^{\circ} 32'$ S. lat., and $173^{\circ} 27'$ E. long. extending inland about 30 miles, is deeply indented by small bays and creeks, and receives the waters of twenty rivers and streams, most of them navigable for boats and small craft, and sufficient for floating the largest timber. There is good anchorage for ships of 500 tons on all sides of the channel up to the head of the bay. *Kaipara Harbour*, 60 miles S. of Hokianga, has an entrance 5 or 6 miles wide, but expands into a fine bay from 25 to 30 miles in length from north to south, and sheltered from every wind. Opposite to the entrance there is a sandbank in mid-channel; but on each side of it there is a channel with abundant water to carry in a vessel of any tonnage at any time of the tide, the smallest depth being 10 fathoms at low water. *Port Manukao* or *Manukou*, 30 miles S. of Kaipara, has an entrance about a mile wide, which afterwards expands to a width of 20 miles; it is separated from the Gulf of Shouraka by an isthmus of only three miles across. *Waikato Harbour*, 25 miles along shore, south-east of the entrance of Port Manukou, is formed by the navigable rivers Waikato and Awaroa; one of the tributaries of the former, the Horouta, is said to flow from a large inland lake called *Rotarua*. The approach to the estuary is rendered difficult and dangerous by a bar, and there is no safe harbour inside. *Wangara*, a bar harbour, 25 miles south of Waikato. *Aotua Harbour*, 10 miles south of Wangara, has a winding channel two or three miles long, which expands to a bay 10 miles wide. *Kauia Harbour*, 10 miles farther south, is a bar harbour, but has a good clear channel, three quarters of a mile at the entrance.

In the Southern Island:—*Blind or Taenua Bay*; a large triangular indentation, with *Maccovee Bay* on its west side; *Admiralty Bay*; *Port Hardy*, in D'Urville's Island; *Port Gore*, the *Current Basin*, a strait connecting Blind Bay and Admiralty Bay; *Queen Charlotte's Sound*, which extends inland for 30 miles, with an entrance 26 miles wide, but soon narrowing to ten; *Cloudy Bay*; all on the north coast of the island, and on the south side of Cook's Strait. *Looker-on Bay*, *Pegusa Bay*, on the north

side of Banks's peninsula; *Akroa*, a remarkably fine and safe harbour at the south-eastern extremity of Banks's peninsula; *Otago Bay*, to the north of Cape Saunders; all on the south-east coast. *Foveaux Strait* between Tavai-poenamoo and Stewart's Island; *Knowley Bay* or *River* an estuary on the north side of the strait, which extends inwards for about 100 miles. And at the south-western extremity of the island, *Port Preservation*, *Port Chalky*, and *Dusky Bay*. The shores of Stewart's Island form a series of excellent bays and harbours, but they are encompassed by a great number of small islands and rocks. The island possesses, however, the very fine harbour of *Port Pegasus*, on its south-east coast, equal in every respect to that of Sydney, and superior to it in this respect, that it has three safe entrances.

CAPES.—*Cape Otou* or *North Cape*, $24^{\circ} 25' 30''$ S. lat., where New Zealand terminates in barren precipitous sandhills, called the *Reinga* or *Flight*; and where the foaming Pacific unceasingly dashes against the towering black rocks which skirt the shore. Westward from North Cape, and separated from it by a deep sandy bay which affords no anchorage, is *Cape Reinga* or *Maria Van Dieman*, so named by Tasman in honour of the daughter of the Governor of the Dutch East Indies. About six miles off the Cape N.N.E. is a dangerous ledge of rocks named the *Columbia Reef*, over which the westerly winds cause the surf to rise to a great height; but in fair weather they are unseen. *Knuckle Point*; *Point Surrille*; *Point Pocock* and *Cape Brett*, both at the entrance of the Bay of Islands; *Cape Bream*, *Point Rodney*, *Aiguilles Point*, *Barrier Cape*, *Cape Colville*, *Point Charles*, *Cape Runaway*, *Cape Wareka-heka*, *Cape Wai-apon* or *East Cape*, immediately behind which rises a remarkable high land about 3000 feet above the level of the sea; *Cape Cable*; *Cape Table*; *Matamawi* or *Cape Kidnapers*; *Black Head* or *Cape Topolu-polo*; *Cook's Turnagain*; *Castle Point*; *Point Tehouka-kore*; *Point Obuse*; *Cape Palliser* or *Kanea-kawa*, a fine, high, bold point; all on the east coast of North Island; *Cape Toura-Kira*; *Cape Poliwero*; both on the north side of the eastern part of Cook's Strait. *Reef Point*; *Woody Point*; *Alburtross Point*; *Cape Egmott*; on the west side of North Island. *Cape Farewell*, *Point Lambert*; *Point Jackson*; *Cape Koinmaroo*; and *Cape Campbell*; on the south side of Cook's Strait. Behind Cape Campbell rises Mount Tako, a lofty snow-capt peak, which is visible at a great distance, and serves as an excellent land-mark for making Cook's Strait on this side. *Cape Saunders*, on the south-east side of Tavai-Poenamoo; *Cascade's Point*; *Bald Head*; *Cape Foulwind*, and *Rocky Point*; all on the west coast of that island; *South Cape*, the most southern point of Stewart's Island.

ISLANDS AND PENINSULAS.—*Manawa-tawa* or the three kings, 35 miles N.W. of Cape Reinga; *Didi-houa*; *Motoukawa* or *Caralle*; *Tawiti-raki* or the *Poor Knights*; *Hien* and *Chickens* or *Morotiri*; *Taranga*; *Moko-hinu*; *Fanal*; *Shoutourou*; *Olea*; *Aride*; all to the north of Shouraka Gulf. *Shouraka*, a large hilly peninsula, which forms the eastern side of that gulf. *Curier*; *Haussez*; *Court of Aldermen*; to the east of Shouraka. The *Mayor* or *Touhoua*; *High Island*; *Motti*; *Plate Island*; *Moutouka*; *Pouhia-i-wakadi* or *White Island*, an insulated mountain, like Stromboli, which constantly emits smoke, and affords a beautiful spectacle by night, in the columns of fire which issue from the crater at its summit, in the Bay of Plenty. *Houana-kokeno*, to the south of East Cape. *Tera-kako Peninsula* forming the north-east side of Hawke's Bay. *Mana* or *Table Island*; *Entry Island*; *Gaimara Islands*; *D'Urville Island*; in Cook's Strait. *Banks's Peninsula*, projecting 42 miles from the east side of Tavai-Poenamoo, and connected with it by a low sandy isthmus, forms a high table-land which rises abruptly from the sea, white, and visible from a great distance. It has been taken possession of by a French colony. *Solander Islands*, at the western entrance; *Bench Island* and *Rouabouki*, at the eastern entrance of Foveaux Strait.

RIVERS AND LAKES.—Of these nothing is known beyond what has been already mentioned in connection with the Bays.

CLIMATE.—The peculiar position of these islands, which lie north and south, gives a different degree of temperature to nearly every few miles of country; and, owing to the generally narrow width of the land, and to the almost uninterrupted chain of mountains which runs through their whole length, mists and exhalations, drawn from the surrounding ocean, overspread the country, imparting to it a constant humidity, which produces a luxuriant vegetation, and a constant supply of water to the numerous streams which flow through every valley. The climate of the Northern Island is uniform and genial. In winter the thermometer on the coast rarely falls below 45° ; and, during the height of summer, seldom rises above 85° . At Queen Charlotte's Sound in the Southern Island, Captain Cook found the thermometer, in the middle of summer, not to rise higher than 66° ; in June or midwinter, it never sunk below 48° . This agreeable temperature contributes much to the unusual vigour of the vegetation, which is chiefly composed of evergreens; and allows the agriculturist to raise annually as many crops of leguminous plants as he chooses. The rains throughout the year fall in moderate refreshing showers, particularly in Eaheinomawe; during winter, rainy weather predominates in Tavai-Poenamoo. Spring, summer, and autumn, are extremely pleasant; being attended with none of the overpowering heats and sudden changes of New South Wales. At these seasons the rains fall heavily, but seldom for more than two days together. In winter, the winds from the east or south-east are seldom unaccompanied by rain. Westerly winds are, however, the most prevalent. They commence in the forenoon, rising to a smart gale; but subside at sunset to a placid calm. The whole range of the west coast then becomes a lee shore, and on that account is little frequented by shipping, for the surf, dashing to a great height, renders approach to the harbours impossible; and equally prevents vessels from quitting them. The westerly gales are also frequently accompanied by heavy squalls, which render it almost impossible for a vessel near the land to preserve an offing. The sea rises in proportion to the wind; and yet these violent storms are accompanied by fair weather overhead. In Cook's Strait these heavy gales are of frequent occurrence, a circumstance which causes it to be avoided by ships. The neighbouring mountains of Kai-kohuda are overloaded with vapours; and not only

increase the furious force of the blasts, but alter their direction in such a manner that no two gusts follow from the same quarter; and the nearer the shore the more their effects are felt. The west and south-west winds blow almost without intermission from May till September. North winds are least frequent throughout the year; and seldom more than four violent gales are felt from that quarter during the season.

VEGETABLE PRODUCTIONS.—Among the most distinguishing characteristics of New Zealand are its splendid forests, in which trees of many varieties are often met with of amazing girth, and all flourishing with the most luxuriant vigour. Those of the pine tribe command the principal attention, from their towering height, without a branch protruding to destroy their symmetry. The Cauri or yellow pine, in particular, will challenge comparison with any trees of the pine family, in beauty or utility; and there are, besides, many other species. The palm tribes exist in great number and variety; supplejacks grow to a great length, and render the dense forests almost impassable; the heart of the delicious palms, called *e'rito*, is highly esteemed; the *kourou* is equally prized, and also the saccharine roots of the *ti* or cabbage-tree. The fruits indigenous to the country are few, and of little value. The principal is the *haraka-maori* or native fruit, which grows in clusters, and is about the size and form of the Spanish olive; it is of a bright yellow colour when ripe. The *tawara* is a parasitical fruit which grows among the decaying branches of the rata and other trees; it has the form and whiteness of the head of a cauliflower, and is of a sweet yet acrid taste when perfectly ripe; but when unripe it is exceedingly bitter. The taro (*arum esculentum*) of several species, a very farinaceous legume, is planted in the islands, especially to the southward. There are likewise various other fruits; but the most valuable of these to the New Zealander, as an article of food, is the *kumera* or sweet potatoe, of which there are many varieties, and some of them very farinaceous. It is said by the natives to have been brought from *Ton-wahai*, or the distant regions, by their earliest ancestors; it is in consequence regarded with veneration, and has many superstitious legends attached to it. The European or American potatoe, first introduced by Cook, and many other European esculent roots, are now cultivated with success. The turnip is found in a wild state over the whole country, as also wild radishes, garlic, celery, cress, &c. Pumpkins are much cultivated, and grow to a large size. The vegetable marrow plant and calabashes are of great use for containing liquids; and gourds of every kind are now found in all the plantations. Indian corn grows to a large size; and wheat yields at the rate of 40 bushels an acre. Grapes are largely cultivated to the northward of the river Thames; strawberries and raspberries overrun the soil wherever they are planted; olives, pomegranates, figs, quinces, nectarines, peaches, apples, pears, and cape gooseberries, thrive in abundance. The sugarcane flourishes in *Hokianga*, and several tropical exotics at the *Horeké* settlement. Flowering shrubs which require the shelter of the greenhouse in England are not affected by exposure to the open air throughout all the seasons of New Zealand.

Of the *rohi* or fern upwards of sixty distinct varieties have been noticed by botanists. It is found growing to the height of twelve feet; and plains and sloping grounds are often rendered impassable by its entangling fibres. But it never grows on bad land, and the quality of the soil is generally indicated by the size and strength of the fern which covers it, inferior land producing only a stunted and puny vegetation. When sown with English grasses the fern-land produces excellent pasture, and clover in particular grows luxuriantly. There are many shrubs with myrtle leaves; the tea plant, *kaikatoa*, covers the plains, not excepting the jutting headlands which are exposed to the fury of every gale. The ground in the vicinity of the roots of trees, which extend to a great distance in the forests, is carpeted with mosses and lichens of beautiful varieties, which flower twice a-year. Funguses of great size and hardness cover the decayed trees which block up the forest paths; while the bark of the live trees is covered with liands, flowering convolvuluses, lichens, mosses, and ivies. There are many species of laurel; of which we may mention the *philanthus* or seaside laurel, and a species of the retiring *minosa*, or sensitive plant, sheltered by the drooping branches of the dwarf palm. The *erithmum* or samphire abounds near the shores which are washed by the tides; and sea-weed in great variety, the most common of which is the *fucus filum* or threaded sea-weed, which strews the coast, and has its roots in the corals and rocks in deep water. Nightshade and various nettles grow extremely large; there are, besides, many species and varieties of minor vegetation, all of which have the same undying appearance in winter as the forests. But the most valuable native plant is the flax (*phormium tenax*) which flourishes in great abundance, and chiefly in the vicinity of swamps. Of this plant there is a consider-

able variety, principally caused by difference of soil and climate: some flax plants to the northward scarcely attaining the height of six feet, while others in the south reach sixteen. In appearance it resembles the common flax. Of the leaves of this plant the natives make all their valuable apparel, with their fishing lines and every kind of cordage; and by merely splitting them into strips and tying them together, they construct their fishing nets and seines, some of which are of enormous size. It appears to be the strongest of all vegetable fibres, and possesses this advantage over hemp and European flax that it is of a brilliant whiteness, which gives it a satiny appearance, so that it does not require to be bleached. It is also a handsome and vigorous plant.

ANIMALS.—There are no quadrupeds indigenous to the country. There is a species of dog, named *pero*, which according to tradition was introduced into the country in remote times by a number of divinities (probably the Spaniards) who landed on their shores; but it has dwindled away to the lowest grade of the canine family, owing to its bad treatment by the natives. The *puorka* or hog has also become naturalized, and now abounds in a wild as well as domestic state throughout the islands, where the loose mould of the valleys forms no obstacle to its snout in grubbing up the roots of the fern and the succulent thistle, on which it loves to feed. Cats and rats have also been recently introduced, and are valued by the natives as good food; the former are also prized for their skins, so that Europeans cannot get their cats kept for the thievish native gourmands. Sheep have been introduced, but seem not to be adapted to the country otherwise than as food. Cattle, horses, and asses have also been introduced, and thrive well. Birds are numerous, but are generally small. Among these are mocking-birds, parrots, parroquets, cuckoos, in great variety; and wood-pigeons, which abound in the woods, and are delicious food; besides many others, whose native names it would be useless to specify. European poultry have been introduced, as the turkey, duck, and goose, which, however, the natives seldom use as food, preferring to dispose of them at high prices to shipmasters. Tropical birds of the palmipede genus, and sea birds of many varieties likewise abound on the coasts.

There are no noxious reptiles; but there are a few harmless lizards, and the gigantic lizard or guana is found principally in the large Southern Island. There are no serpents or snakes of any kind; but leeches, toads, and frogs abound in the swamps. Fleas and the *namu* or sand-fly are mischievously troublesome; mosquitoes abound in the numerous swamps; there are also butterflies of various kinds, but not remarkable for beauty, with locusts, grasshoppers, dragon-flies, black ants, beetles, scorpion-flies, flesh-flies, gad-flies, American moths, snails, grubs, earthworms, caterpillars, spiders, and also scorpions and centipedes, which, however, are of very small size, and quite harmless.

The coasts formerly abounded with seals of every variety, but they have been almost extirpated by Europeans. Black whales also frequent the coast in vast numbers in the winter season, or from May till September; and at a moderate distance from the land the sperm whale is occasionally found in large herds. There are also sharks, pilot fish, flying fish, and the hammer-headed shark, which appears in great shoals, and is preserved by the natives as winter food. Both the sea and the rivers abound with fish in great variety, and equal in taste and flavour to any in Europe. There is also abundance of lobsters, crawfish, oysters, prawns, shrimps, clams, poppies, mussels, limpets, and cockles. Some gigantic mussels grow to a foot in length, and are found in mud banks at low tide. There are also various zoophytes, madrepores, medusæ, which are found in large glutinous masses at the edge of the tide.

PEOPLE.—The New Zealanders form one of the finest branches of the Malay family, and embrace several varieties. Captain Crozet divides them into three classes: white or copper-coloured, brown, and black; but properly speaking, the colour varies only from the olive tinge of the southern Europeans to a brown black. The olive or copper-coloured race are a noble people, being often above six feet in stature, muscular, and active. The higher classes are amply chested, remarkably well formed, and of dignified appearance. Their countenances are often very pleasing; their hair is glossy, black, and curling; and their features approach the European standard. The lower classes, and particularly the natives adjoining the East Cape, are short in stature, with lank or frizzly hair, a brown complexion approaching to black, and a bad expression of countenance. The females of the latter class differ but little from the males in appearance, but the ladies of the upper class are quite different, and many of them would grace a page in "the Book of Beauty." The difference between the

distinct races which have inhabited the country is more remarkable in the women than in the men. Those of Malay origin are easily distinguished from the Papuas; but the flat nose, full lip, and projecting mouth of the latter are but rarely seen. In both races the female stature is less than the male. The features of the women are generally regular; the hair is often jet black, long, and profuse; and the teeth extremely white. The forms of the women are elegant and interesting; but marriage, and the servitude with which it is accompanied, cause early old age and decay.

The character of the New Zealanders exhibits, with great boldness of relief, many both of the virtues and the vices of the savage state. As individuals they are remarkable for a vigour of mind and a forethought, which distinguish them from all other savages who have made so little progress in the arts of civilized life; while their discernment in appreciating the advantages of civilization, is not greater than the energy and self-denial which they manifest in the pursuit of distant advantages. As a community, they are chiefly remarkable for the ferocity which they exhibit in the perpetual wars which ravage the country; for that contempt of human life which seems to be the natural result of a species of warfare that aims at the extermination or captivity of enemies; and for the practice of eating the flesh of the enemies they have slain, and even of their own slaves when pressed by hunger. The New Zealander's point of honour is revenge, and this he pursues in spite of danger and difficulty, encountering every fatigue, and submitting to every privation in pursuit of his object; and he would be disgraced among his tribe were he to allow the spirit of his friend or relation to remain unappeased by the blood of his enemy. With this is united a nice feeling of honour on other points that concern his dignity, which leads him immediately to perceive and resent any slight or insult offered to his person. But he is not more distinguished for ferocity and cruelty to enemies, than for a strength of attachment to his tribe and kindred, which dissolves the savage warrior in tears on the neck of his friend, whom he meets after a long separation; nor is he less susceptible of gratitude for kindness, than of resentment for injury.

The New Zealanders are ignorant of some of the commonest arts; their clothing is rude, and their agriculture imperfect; they have no knowledge of metals, or of writing; and yet they exhibit the keenest sense of the value of those acquirements which render Europeans so greatly their superiors. There is a natural politeness and dignity in their deportment, a love of poetry, music, and the fine arts, and a wit and eloquence that remind us of the Greeks of Homer. Their language is rich and sonorous, abounding in nice distinctions; it is radically the same with that of Tahiti and other Polynesian islands, and has been reduced to writing by the missionaries. They have abundance of poetry of a lyrical kind, and are passionately fond of music. They excel in carving, of which their war canoes are fine specimens; they display their talents also in astronomy, having given names to the stars, and divided them into constellations; and they spend great part of the summer nights in watching their motions; but they have connected with them some curious traditions, which they hold in superstitious veneration. They are quite free from idolatry, and have many just and admirable notions of God, whom they call Atua, and believe to be a spirit infinite and eternal, governing the world by his providence. They believe in a future state of existence. They believe also in an evil spirit or devil, whom they call Wiro, and to whom they attribute all the evils which befall them. They have also priests among them; but, as there are no idols to worship, these are rather teachers than priests; though they are employed to baptize and name the children.

The number of the population cannot be ascertained with any degree of accuracy; but it is loosely estimated to amount to 160,000, of whom at least 100,000 are in the Northern Island. They are divided into a great number of petty tribes; and no general dominion seems ever to have prevailed over any great portion of the country. But property in land, and the sovereign rights of their chiefs are well established institutions. They have no towns, and their villages are mere collections of huts; though some of them are strongly fortified with palisades.

DISCOVERY AND COLONIZATION. — New Zealand was first discovered by Tasman, the Dutch navigator, in December 1642; but he seems only to have touched at the northern point. It was not visited again till 1769, when Captain Surville touched at a bay on the north-east coast; and Captain Cook sailed round all the islands, and passed the strait which now bears his name.

In 1814, the northern part of the Northern Island began to be the resort of ships engaged in the whale fishery, and men occasionally deserted from their ships and took up their residence among the natives. About the same time, a few of the natives occasionally made their appearance at Port Jackson, and being seen and conversed

with by the Rev. Samuel Marsden, he conceived the idea of establishing a mission in the islands, which he accordingly visited for the purpose; and although not immediately successful, the ultimate establishment of a mission was the result. Since that period, the Wesleyan Methodists and the Catholics have established missions, all of which have of late years extended their influence, bringing the natives into familiar intercourse with the Europeans, and generally promoting their civilization, in spite of some questionable practices on the part of the church missionaries, which have brought them somewhat into disrepute. But the missionaries are not the only white men to whose influence the New Zealanders have been subjected; other settlers of a very different class, the very outcasts of a depraved population, have found their way to the country. Convicts who escaped from the penal settlements; runaway sailors from whaling ships; needy adventurers, whose improvident habits and evil courses had made them men of no country; with a small admixture of worthy and energetic men, such as will find their way into all eligible fields, but who formed too inconsiderable a minority to curb and neutralize the bad passions of the majority, formed the bulk of the European population in 1839. In 1836, an association was formed in London for the express purpose of colonizing these islands; but having failed in their object of engaging the Government and Parliament in their cause, the association became virtually dissolved; and instead of it a joint-stock company was formed for the purpose, which, early in 1839, became possessed, by purchase, of some extensive tracts in the Northern Island. More lately their agent in New Zealand acquired for the company the whole of the territory on both sides of Cook's Strait, including Port Nicholson, where they have since formed their principal settlement, and founded the town of Wellington. The attention and business of the company is "confined to the purchase of tracts of land, the promotion of emigration to these tracts directly from the United Kingdom, the laying out of settlements and towns in the most favourable situations, and the gradual re-sale of such lands according to the value bestowed upon them by emigration and settlement. It is also proposed, that to facilitate the transmission of capital between England and New Zealand, the company shall act as agents for that purpose only." The first colony consisted of 1125 persons, of a very select class, including several persons of birth, education, and refinement; but having been landed in the country without any provision being previously made for their reception, they have had to endure such hardships as have disgusted many of them, and occasioned grievous complaints.

Neither the New Zealand Association of 1837 nor the New Zealand Company of 1839 could gain the sympathy or even the countenance of the Government. By the energetic operations of the latter body, however, the Government were forced into action; and just as the first colony was ready to start, Captain Hobson of the navy was sent to New Zealand for the purpose of ultimately erecting it into a British colony. Unfortunately, New Zealand, or rather the northern portion of the Northern Island, had been treated in 1831 as a sovereign independent state, and Captain Hobson was instructed to begin by calling himself *consul*. He was then to obtain a cession of the sovereignty from the chiefs, and to declare so much of the country as should be ceded to him, and also such part thereof as should be in possession of British subjects, a dependency of New South Wales. Of this portion he was to cease to call himself *consul*, and was to become lieutenant-governor under the governor of New South Wales. In other words, New Zealand was treated as a foreign country, over which her Majesty could have no authority, until it should be obtained by formal cession, from the date of which sovereignty, with all its consequences, would commence. From this course of policy much difficulty has since arisen, and more will yet arise. It is a well-understood principle of international law, that discovery and occupation give to the discovering nation a right of sovereignty *as against all* civilized powers. The relations which the discovering country may establish with the native tribes does not in any way affect this right of sovereignty. The Americans, for instance, recognise a certain modified sovereignty as continuing in the Cherokees and other aboriginal tribes, but they nevertheless assert the sovereignty of the union as against all European nations. Of our original sovereignty over New Zealand no one ever doubted, until it was lately repudiated or renounced by the colonial department. Acts of sovereignty had frequently been exercised. Magistrates had been appointed; criminals had been arrested, sent to Sydney, tried, and punished many years ago; and yet it was determined that Captain Hobson should take a new lease of sovereignty, dating from a first cession or cessions from the natives. One of the consequences of this was, that New Zealand, which had all along been respected by foreign powers, was immediately thrown open to colonization by any European

power. France at once took the hint, and sent out the Comte de Paris transport with about sixty settlers, to found a French colony there. This expedition was only twenty days too late to take possession of the Southern Island in the name of France; Captain Hobson having at last, in May 1840, issued a proclamation, declaring the sovereignty of Britain over both islands, and thus anticipating the French.

The New Zealand Company have settled their first colony at Port Nicholson, which is described as one of the finest harbours in the world; and they expect that the town of *Wellington*, which they have founded there, will become the great commercial metropolis not merely of New Zealand, but of the whole of Australasia. The Bay of Islands is, however, the place which, above all others, appears to have been destined for the seat of a great commercial city. It combines every advantage which could be wished for supplying the wants of a large population, while it is at all times easily accessible for shipping. The town of *Kororarika* stands in a beautiful situation, embosomed among gently swelling hills, from which flow several fine streams, and already contains a church, and a great many houses. The government capital has been established at *Auckland*, on Waitemata harbour. There is to be a town named *Churchill* at Hokianga, and one named *Russell*, at the Bay of Islands. The New Zealand Company have also colonies at *Nelson*, on the south side of Cook's Strait, and at *New-Plymouth*, on the south-west coast of the north island.

In the great ocean to the south-east and south of New Zealand are several smaller islands. The *Chatham Islands*, 420 miles E.S.E. of Cape Palliser, were discovered in 1791 by Lieut. Broughton, the largest of which is about 36 miles in length, of a compact form, well wooded, and abounds in flax. The others are considerably smaller, and are named the *Two Sisters*, *Paranid*, and *Corucallis*. The group extends 120 miles from S. E. to N., between $43^{\circ} 38'$ and $41^{\circ} 40'$ S. lat., and 177° and 179° W. long. The inhabitants are a branch of the New Zealand family, and speak the same language. The *Bounty Isles* were discovered by Captain Bligh in 1788; they are thirteen in number, within a space of three miles and a half, in $47^{\circ} 44'$ S., and $176^{\circ} 47'$ W. long. *Antipodes Island* was discovered in 1800 by Captain Pendleton of the sealing vessel *Union*, who gave it this name from its being the nearest land to the antipodes of London. It is situate in $49^{\circ} 40'$ S., $177^{\circ} 20'$ E. *Campbell's Island* was discovered in 1810, in $52^{\circ} 43'$ S. lat., $167^{\circ} 2'$ E. long. It is 30 miles in circumference, with a rocky coast, rising in the interior into peaks of considerable height. The *Auckland Islands* were discovered by Captain Bristow in 1807. They are situate in $50^{\circ} 40'$ S. lat. 164° E. long. The principal island is 20 miles by 8, with an elevated coast, and a lofty mountain, visible for 50 miles in clear weather. The smaller islands are named *Enderby*, *Disappointment*, and *Adam's Islands*. They are well covered with vegetation, and the forests contain trees of large size, and of a variety of species. The only quadrupeds are rats; but there are many beautiful birds, and the coasts abound with fish. The *Macquarie Islands* were discovered in 1811, the principal of which is 19 miles long, by 6 broad, and contains two open anchorages. At a little distance north are two rocky islets, named the *Judge* and *Clerk*, and to the south, other two similar islands, named the *Bishop* and *Clerk*. The middle of the group is situate in $54^{\circ} 39'$ S., $156^{\circ} 21'$ E. long.

NEW GUINEA, &c.

NEW GUINEA is situate to the north of Australia, from which it is separated by Torres' Strait, between 0° and 10° S. lat. and 131° and 143° E. long.; being about 1100 miles in length, by 330 at its greatest breadth. It is of an irregular form, the western part being indented by deep bays, which almost cut it off from the more compact eastern portion. It is generally remarkable for its great elevation above the level of the sea; the northern coast in particular is high and mountainous. It is described, however, as being every where a rich and magnificent country, and probably contains the most precious vegetable productions of the Asiatic Islands. But no European colonists have hitherto settled on its shores; and no traveller has yet explored the interior. The only quadrupeds that are known to exist in the island are dogs, rats, and wild hogs; but the birds are of great beauty and variety. It is the original habitat of the beautiful birds of paradise. The people are of the Malaysian negro, or Papuan race, and are invariably described by voyagers as hideously ugly, with large eyes, flat noses, thick lips, woolly hair, and a black shining skin. This natural ugliness they increase by passing bones or pieces of wood through the cartilage of the nose, and frizzing out their curly locks like a mop to an enormous size. They appear, however, to be somewhat farther removed from extreme barbarism than the Australians, for they have permanent houses, and both men and women wear wrappers round the waist. In the interior there are said to be some very miserable Harafors, who live in trees, but cultivate the ground, and bring their produce down to the coast. The whole of New Guinea is indented with deep bays; and the coast is surrounded by multitudes of small islands, all peopled by Papuas, except those on the north-west, where Chinese and Malays have introduced themselves. The trade of the coasts is monopolized by the Ceramese, who have inspired the Papuas with an inveterate hatred of all other foreigners. The quantity of ivory, mossy-bark, nutmegs, trepang, tortoise-shell, pearls, edible birds'-nests, birds of paradise, and other articles of value, purchased by the Ceramese on the coast for an almost nominal price, and carried by them to Bali and Singapore, is incredible.

Off the south-west coast, at the distance of about 40 miles, and 160 miles N. E. of Timorlaut, are the *Arru Islands*, a group of some importance. They are small, rarely exceeding 6 or 7 miles in circumference, but so closely grouped that a number of them, when viewed from a distance, sometimes appear like a continuous land. According to Mr. Carle, they are hilly, but not mountainous, and the uplands are covered with trees; but, according to Captain Stanley, they are low and flat in appearance, and consist chiefly of a mangrove swamp, intersected by numerous chains, thickly wooded with fir trees. They are thickly inhabited by an industrious people, who seem to be a mixture between the brown and the black races of Malaysia. They are larger and more powerful than the Javanese and Malays; their hair is short and curled, but not woolly; their women are well treated; the majority are Pagans; but there are also many Christians and Mahomedans. They are noted for their honesty, and are not easily offended. The islands are the entrepot for the productions of the neighbouring countries, and much commercial intercourse is maintained, chiefly with the Chinese, Bugis, and other native traders. Tortoise-shell, bees' wax, ambergris, mossy-bark, birds of paradise, trepang or sea-slug, and edible birds'-nests, are the principal exports. Fresh provisions and supplies for shipping may be procured in abundance. To the westward is another group, named the *Ai* or *Key* islands, the largest of which

is 45 miles in length, by 4 in breadth, mountainous and thickly covered with trees. Its highest point, near the centre, rises to the height of 3310 feet.

The remaining islands of Australasia, situate to the N.E. and S.E. of New Guinea, though some of them are of considerable size, are in other respects so unimportant, that it is sufficient merely to mention their names. They are mostly inhabited by varieties of the same negro races, except those to the S.E., where the negroes become mixed with the Polynesians. The principal of them are: the *Admiralty Islands*, *New Hanover*, *New Britain*, and *New Ireland*, to the north-east of New Guinea, from which they are separated by *Dampier's Strait*; *Louisiade*, a long chain of isles and reefs, extending to the eastward of the most easterly point of New Guinea; the *SOLOMON ISLANDS*, including *Bouka*, *Bougainville*, *Choiseul*, *Isabel*, *George*, *Guadalcamar*, *Gover*, *Arsacides*, *Buenavista*, *Rennel*, *San Christoval*, and many others; the *NEW HEBRIDES*, including *Tierra del Espiritu-Santo*, *Mallicollo*, *St. Bartholomew*, *Isle of Lepers*, *Santa Cruz*, *Duff Isles*, *Tabouai*, *Vanikoro*, where *Perouse* was wrecked in 1788, *Recherche*, *Mitre*, *Cherry*, *Tucopia*, *Bligh*, *Banks*, *Aurora*, *Pentecost*, *Apec*, *Sandwich*, *Erromango*, *Tanna*, *Hunter*, and *Walpole*; the *LOYALTY ISLES*; and *NEW CALEDONIA*. The last named island is 250 miles in length by 30 in breadth. It bears a great resemblance to New South Wales, consisting of barren rocky mountains, interspersed with fertile valleys; and many of the productions are similar. The people, however, are different, and are represented as strong, robust, active, and well made, courteous and friendly, and apparently a mixed race. Between New Caledonia and Australia is situate the *Coral Sea*, which is encumbered with shoals, reefs, and low islands.

III. POLYNESIA.

GENERAL DESCRIPTION.—This division of the world, as its name implies, consists of a great number of islands scattered over the Pacific Ocean, and extends from Asia, Malaysia, and Australasia on the west and south-west, to the wide open sea which washes the western shores of America. But, though innumerable, these islands, in respect of their general physical characteristics, may all be included under one general description. They are divisible into three classes; the mountainous, the hilly, and the low coralline. The islands of the mountainous class are, with few exceptions, truly splendid. The mountains rise gradually from their bases till their summits are lost amongst the clouds. Some of them are broken into a thousand fantastic shapes, and have their sides clothed with bright verdure of various shades. Beauty, grandeur, wildness, and sublimity are so fantastically blended and contrasted, as to excite the most varied and delightful feelings. The bases of the mountains are bordered by fertile and luxuriant valleys, adorned with stately bread-fruit trees, and many other tropical productions, some of which are of gigantic growth, and of the richest foliage, all equally beautiful, but each having its own peculiar hue, from the darkest shade of green to the lightest tint. The plumes of the cocoa-nut tree overtopping the whole, and waving majestically in the passing breeze, give an exquisite finish to the landscape. The mountains in the islands of this class have generally an elevation of from 2000 to 10,000 feet; in Hawaii alone they exceed 13,000. All of them exhibit evident traces of volcanic agency; in many the rocks are composed of a fine-grained black basalt; in others there are pumice and other stones of varied appearance, which have evidently undergone the action of fire; immense masses of conglomerated rubble are also met with. Whatever may have been their origin, it is evident that they must all have been under water; for on their loftiest summits, coral, shells, and other marine substances are found in great abundance. The islands of the second class are rather hilly than mountainous, being generally from 100 to 500 feet in height. They are in general equally beautiful in appearance, and equally luxuriant in their foliage with those of the first class; but are less sublime and romantic. The rocks consist of crystallized carbonate of lime, very much in appearance resembling the aragonite of the Giant's Causeway. The third class embraces the low coralline islands, most of which rise only a few feet above the surface of the sea. They are generally small; though Tongataboo is 100 miles in circumference. The soil upon them is in many places very thin, so that there is little vegetation besides the cocoa-nut trees, pandanus, some stunted hibiscus, with a few other trees of dwarfish growth, and a quantity of brushwood. Tongataboo, however, and all the Friendly Islands may be considered as exceptions; the soil there being much deeper, and every production of the islands of the first and second classes grows in them with luxuriant profusion. All the Society Islands, and also many others, are surrounded each with a belt of coral rock, from two or three to twenty yards in width, and situate at distances varying from a few yards to two miles from the shore. Against this barrier the long, rolling waves of the Pacific are driven with terrific violence; and towering in one vast sheet to an amazing height, roll over their foaming tops with majestic grandeur. The waters of the lagoon, between the reef and the shore, are placid and transparent; the bottom and the sloping sides present a most enchanting picture; for coral of every varied shape and hue is seen intermingled in rich profusion, suggesting the idea of a submarine flower garden or shrubbery of exquisite beauty; while among the tortuous branches of the madrepora, and the wide-spreading leaves of other corals, the zebra fish and many others, of every colour and size, are seen gambolling in conscious security.—(*Williams' Missionary Enterprise*.)

The coral islands are classed as circular, flat, long-narrow, and those which encircle high land. The islands in the Dangerous Archipelago are all of the first class, and consist of strips or circular belts of coral from 400 or 500 yards to one mile across, and always inclosing a lagoon; they are seldom more than four or five feet above the water, and abrupt towards the ocean, which rapidly deepens on the outside to more than 120 fathoms. The islands themselves vary from 2 or 3 to 150 miles in circumference; the ring being often divided across by a fissure which permits ships to enter the lagoon. These are all the work of the coral insects, which are said to commence their labours at no greater depth than from 15 to 20 fathoms. The bottoms

of the lagoons are seen in calm weather at the depth of 100 feet or more, strewed over with shells and fragments of coral, rarely showing any living specimen below 16 or 17 fathoms, at which depth smaller reefs rise within the lagoon; and beyond it broken masses of rock may be seen without any living portion attached. Islands often occur of a flat or tabular form, generally oval or irregularly rounded; of which kind are most of the Friendly Islands. There are also many crescent-shaped reefs, having the convex side highest, which often show their position to the mariner only by the breaking of the waves over them, while the horns of the crescent gradually sink into the deep. In a few instances, however, as in Gambier's Island, they are high enough to be covered with vegetation and to be inhabited. Of those that form long narrow strips there is one called Tehuro near Tahiti; but the grandest example known is the *Great Barrier Reef*, which extends along the north-eastern coast of Australia, for more than a thousand miles, in the course of which space there is one continuous portion of more than 350 miles, with scarcely a break or passage through it. Of the last class of coral groups or reefs, those encircling high land, the Society Islands offer striking examples. These are mostly surrounded by reefs 400 or 500 yards from the shore, with a deep channel inside, containing numerous openings through which ships can enter, and afterwards anchor in perfect safety. These breaks are in most instances opposite the mouths of fresh-water rivulets. The islands of Raiatea and Otaha are enclosed in the same reef, the openings through which are in most cases marked by high and green points covered with cocoa-nut or other trees. Ships can enter at the windward side and get to sea again through the leeward channels, by passing through the strait which separates the islands. But of all these varieties of coral islands, the form must very materially depend on that of the base on which they happen to be reared; hence their circular, crescentine, oval, or irregular forms denote the shape and even the nature of the subjacent rocks. In most cases the bases of the small islands appear to be volcanic craters, either entire or broken; islands of volcanic rocks, as Tahiti, are surrounded by rings of coral; but the elevation of the coral islands seems to be owing not merely to the accumulation of matter produced by the rough action of the sea, but to a gradual rising of the low islands, and a violent subterranean movement of the high ones, like Tahiti, which bears on the top of one of its highest hills a distinct and regular bed of half fossil coral; and near it, but on a lower level, a volcanic crater with two lateral gorges.—(*Phillips's Geology*, p. 308-10.)

CLIMATE AND NATURAL PRODUCTIONS. — The greater part, and indeed almost the whole of these islands being within the tropics, the climate is necessarily warm, and little varied; the heat, however, is delightfully tempered by the presence of the vast body of water by which they are surrounded, and their climate and physical characteristics altogether may be said to justify the descriptive accuracy of the following lines:—

“ And, glittering in the sun's bright beams,
Places there are where Ocean smiles,
Meandering in a thousand streams,
Among as many blooming isles:
Seeming to the delighted eyes
On earth a heavenly paradise.”

But it is the smile of a giant who is not always *pacific*; for he sometimes rises in wrath, and dashes with tremendous fury on the rocky barriers of the blooming islands, which are saved from destruction only by the labours of their tiny architects. The vegetable productions are, of course, all tropical; and the soil of the volcanic islands in particular is so fertile as to produce spontaneously in abundance, almost every thing necessary for the support or the enjoyment of man. The principal products are: the bread-fruit tree, of which there are many varieties, and the fruit of which affords a nutritive food, while the trunk supplies timber for buildings and canoes, a gum which serves for pitch, and a species of bark which is manufactured into a substantial cloth; the cocoa-nut tree, which supplies meat, drink, cloth, and oil; plantains and bananas of many sorts; yams and sweet potatoes; taro-root; sugar-cane, and various other edible roots and fruits. The only quadrupeds found on the islands when first visited by Europeans were hogs, dogs, and rats; but birds were numerous, consisting of poultry, pigeons, turtle-doves, parrots, tropical birds, &c. The shores abound with sea-fowl, and the sea teems with excellent fish, swimmers as well as crustacea, and mollusks, which the natives capture with great dexterity.

PEOPLE. — The Polynesians seem to belong to the Malay variety of mankind, and a general resemblance pervades them all; somewhat modified, of course, by the

circumstances of climate, occupation, and habits. Their persons are generally short, squat, and robust; their lower limbs large and heavy; their arms fleshy; their hands and feet small; their face somewhat of a lozenge shape, the forehead and chin being rather sharpened, but the cheekbones high and broad, with hollow cheeks. The eyes are black, small, narrow, and obliquely placed, like those of the Chinese; the nose broad, but not flat; the nostrils open and circular; the mouth rather wide; the hair lank, coarse, and black. Their complexions are of various hues of brown, generally olive or light copper, but making in some cases an approach to white or black. Every where they follow the same custom of marking their skins with indelible figures, often in elegant forms, but which have sometimes the effect of concealing their complexion, their faces in many cases being entirely covered with them. This process they call tattooing. They have been found to be all very nearly in the same state of civilization—the very children of nature; some of them indeed gentle in manners, but all addicted to serious vices; carrying on their petty wars with savage ferocity, and making lawful spoil of the persons and properties of every stranger who comes in their way, and can be mastered. As the climate of their islands renders little attention necessary in clothing or habitations, their arts with respect to these grand objects of more civilized communities were very simple; but in regard to instruments for procuring food and carrying on war, they display great ingenuity, though the want of metal has been a serious drawback. Their canoes they manage with great dexterity, and the ingenuity of their fishing tackle can only be exceeded by their skill in using it. Their hooks, however, are only made of pearl shells, bones, and hardwood.

LANGUAGE AND GOVERNMENT.—Dispersed as the Polynesians are, and rarely and purely accidental as any communication between distant islands must have been, it is nevertheless certain that the different dialects which they speak are all referable to the same common language, which seems still to form the original portion of the Malay; but their origin, with the time and manner of their migration and settlement in these innumerable islands, are problems which still remain to be solved. In manners, customs, institutions, superstitions, and religion, the general accordance of the Polynesians is as remarkable as in the case of their language. They have all the same form of government, the authority of which is generally divided among a number of hereditary chiefs, though there are also sometimes a sort of kings or superior chiefs to whom the others are subject, and to whom they pay great respect and even reverence. The people seem indeed in some of the islands, if not in all, to be divided into three classes or castes, the chiefs, the free proprietors, and the lower class, or serfs. In the whole of Polynesia the nobility are incredibly proud, and hold the people in a degree of humble subjection, of which it is difficult for people in Europe to form an idea. In Tahiti the distinction of caste was formerly carried to such an extent in the case of the royal family, all the members of which were regarded as sacred in the highest sense of the word, that whatever any of them happened to touch became sacred also; if the king entered a house the owner was forced to abandon it; and if he walked on a footpath it was death for a plebeian to walk on it afterwards. In the Friendly Islands the castes are still better defined; but the priestly caste ranks highest, the high-priest or *Tooitonga* taking precedence of the king himself. That singular institution indeed, or superstition, called *taboo*, by virtue of which the king, the nobles, and the priests contrived to appropriate any thing to themselves, was lately prevalent throughout the whole of Polynesia. By means of it the people were contented to be robbed of their property, and to suffer without murmuring any privations which might be imposed upon them. When their houses were tabooed, they dared not enter them; when their taro-roots, or their hogs were tabooed, they surrendered them without a struggle, when the morais or temples were tabooed, they dared not approach them. In short, whenever this mystical word was proclaimed, all action in reference to the matter or thing tabooed, became forbidden to the people.

RELIGION.—Their religion is polytheistic; every family has its guardian spirit, whose image they set up and worship; but they have also a god or gods of a superior order, whom they call *Atooa* or *Eatooa*, or some other form of the same word; but to these they address their prayers only in times of the greatest distress, or on some peculiar exigency; supposing them too exalted to be troubled with matters of less moment than the illness of a chief, storms, general devastations, or some other great calamity; and on these occasions they sometimes propitiate the deities with human sacrifices. Their priests are numerous, and have plenty of employment; they are required to be present and to officiate on all occasions of births or deaths, feasts or

sickness, and are the physicians as well as the clergy of the islands. They generally believe in a future state of existence; but not in a place of punishment; for they believe that all will enjoy degrees of eminence and felicity in proportion as they have been acceptable to the gods while on earth. They regard indeed the spirits of their ancestors as exalted into eatooas, and seek to secure their favour by offerings and prayers. Every sickness and untoward accident they consider as a judgment; and on all such occasions the priest is employed to pacify the offended deity. They believe also in dreams; but it were endless to repeat their superstitious notions, which in fact they only hold in common with savages in every part of the world; though unhappily some of their most cruel and most unnatural customs are connected with them.

DIVISIONS.—Some of the islands are collected into groups of various dimensions, while others are scattered solitarily, far in the ocean. The groups are exceedingly different in their number and extent, as well as in the nature of the islands that compose them; the following classification will be found to embrace them all:—1. *The Bonin or Arzobispo Islands*; 2. *The Ladrone or Marian Islands*; 3. *The Caroline Islands*, including the *Palaos* or *Pelew Islands* at the one extremity, and the *Ralick, Radick, Marshall's*, and *Gilbert's Islands* at the other; 4. *The Feejee or Fidji Islands*; 5. *The Tonga or Friendly Islands*; 6. *Navigator's* or *Samoa Islands*; 7. *Cook's* or the *Hervey Islands*; 8. *The Society, Georgian, and Low Islands*; 9. *The Austral Isles*; 10. *The Marquesas and Washington Islands*; 11. *The Hawaiian* or *Sandwich Islands*; 12. *The Kermadec Isles*; and 13. *The Scattered Islands* unconnected with these groups.

§ 1. *The Bonin Islands or Islas del Arzobispo.*

These are a group of small islands situate to the south-east of Japan, between 24° and 30° N. lat. and 140° and 150° E. long. They are 89 in number; but 19 of these are only reefs or shoals. The northern islands are inhabited by a Japanese colony. One of the largest, named by Captain Beechy *Peel Island*, contains a harbour called Port Lloyd, which is situate in $27^{\circ} 5' \text{ N. lat.}$, and $142^{\circ} 11' \text{ E. long.}$ Water, wood, turtle, fish, and the cabbage-tree, are abundant. A number of British subjects have recently settled on the Bonin Islands, from which they carry on a contraband trade with Japan, or engage in the whale fishery. To the south of the Bonin Islands, properly so called, is a volcanic group, where there are still active volcanoes in *Sulphur, St. Alexander's*, and *St. Augustine's* islands. To the south-east are the scattered islands of *Guadalupa, Malagrida, Grampus, Foleano*, and *Meares*; to the west, *Kendrick, Dolores*, and *Borodino*.

§ 2. *Ladrone or Marian Islands.*

This group extends from south to north between 12° and 21° N. lat. and 144° and 148° E. long. They all belong to the Spanish Government of the Philippines; but only the five southmost are inhabited; all the others being entirely uninhabited, and overrun with wild cattle, hogs, and goats. Their geological formation is almost entirely volcanic, and they seem to be merely so many fragments of land of a very barren and unpromising aspect. The coasts consist chiefly of black and brown rocks, while the interior rises into hills and even mountains; but they also contain fertile valleys, and abound with every thing necessary to human subsistence. *Guam* (*Guajam, Guahan* or *San Juan*,) the largest of these, contains the capital and seat of Government, named *Agana*, which has a population of 3000. The others are: *Saypan* or *St. Joseph*; *Rotta*, the most populous after Guam; *Aguijan*, and *Tinian*. The last two are remarkable for the monumental remains of the ancient inhabitants. In the Island of *Aerigan* a small Anglo-American colony has been planted with the permission and under the domination of the Spaniards. *Assomption* and *Pagan* are noted for their volcanoes; but Captain Beechy found the latter not only quiescent and free from smoke, but covered to the summit with vegetation, and rising to an elevation of 2026 feet.

§ 3. *The Carolinas or Caroline Islands.*

These, including the *Pelew, Ralick, Radick*, and *Marshall's Islands*, extend through forty degrees of longitude, between 133° and 173° E. and between 3° and 16° N. lat. The Carolinas Proper are classed by Captain Lutké into forty-six groups, containing several hundreds of isles and islets. The largest of them seems to be *Ualan*, which is 24 miles in circumference, divided by a valley into two mountain masses, the summits of which rise respectively to 1854 and 1867 feet above the level of the sea. In productions they resemble the rest of Polynesia, except that the bread-fruit abounds only in the eastern islands, and the hog only in the Palaos. They are situate in a very tempestuous part of the ocean, and are exposed to violent hurricanes; yet their inhabitants are more addicted to the seafaring life than most others of the Polynesians. They even equip large sailing barks, in which they maintain a commercial intercourse with the Ladroneas. The *Palaos* or *Pelew Islands* form a western appendage to the Carolinas, from which they do not differ materially in character. They are of moderate elevation, rise into beautiful hills, and are well wooded; but they are bordered by dangerous coral reefs. They became an object of interest in Britain towards the end of last century, in consequence of the shipwreck, on one of them, of the Antelope, Captain Wilson, whose crew was most hospitably received by the natives. The principal island is *Babelthouap*. *Ralick, Radick, Marshall*, and *Gilbert* islands, to the east and south-east of the Carolinas, consist of a crowd of low coral islets, affording but a scanty supply of food, and entirely destitute of any land animals except rats. The inhabitants are described more favourably than almost any other in the South Seas, as friendly, courteous, and amiable; free from the thievish propensities and dissolute conduct that are so general. To the southward of the last named groups are the small islands of *Grand Cocal, St. Augustine, Nederlandish, Peyster, Ellise, Independence, Jesus*, &c.

§ 4. *The Feejee, Fidji, or Viti Islands*

Are situate to the south of the preceding groups, and to the eastward of the New Hebrides. The largest and most important is named *Viti-Lecoom*; the next, *Tanoua-Lecoom* or *Pau* or *Paeu* or *Sandal*

wood Island, for the supply of which article it has been much resorted to by the Anglo-Americans. *Myzolla* or *Nawih*, *Lewou*, *Amboa* or *Bao*, is remarkable for its extent and its peak, which has an elevation of 3600 feet. The islands are well peopled by a race, who, if not altogether negroes, have at least several negro features; and are probably of the same lineage as the Haraforos of Malaysia. Though somewhat advanced in civilization, they are, nevertheless, fond of war, perfidious, ferocious, and incontestably habitual cannibals. To gratify this horrid propensity they make war, murder, kidnap, and absolutely rob the grave of its prey; and it is said, on credible authority, that 200 human bodies have been known to be devoured at one great feast.—(*As. Journal*, Oct. 1838, p. 103.) The whole group, and even individual islands, are divided into petty independent states, which are often at war with each other. The total number of islands is reckoned to be two large, two small, and fifteen smaller, besides innumerable islets, shoals, and reefs.

§ 5. *The Tonga or Friendly Islands.*

This group consists of four principal islands named *Tonga* (*Tongataboo* of Cook), *Anamouka*, *Vavao*, and *Eoua*, besides a great number of islets and rocks. They formed lately one state under King Finow I., but are now divided among a number of independent chiefs. *Tonga* is the largest and most populous; it is about 100 miles in circumference, but perfectly flat, and rises only a few feet above the level of the sea. The soil, however, is very rich, and carefully cultivated, so that it supports a numerous population. *Anamouka* is said by early voyagers to have had two active volcanoes; and there is still one which is very active, in *Tofoua*, a little to the north. *Vavao* and the islands which surround it consist of masses of barren rocks, of compact crystalline limestone, from 30 to more than 100 feet high, and many of them inaccessible. *Vavao* itself, however, is covered with timber, and contains the best harbour in the group; excellent, perfectly landlocked, of great extent, and with numerous entrances, all to the west. To the westward is the Island of *Latto*, which contains a lofty peak. The *Hapai Islands* lie midway between *Tonga* and *Vavao*; and form a cluster of 30 or 40 small coralline islands, of which about the half are inhabited. The principal island is *Lefuga*. The inhabitants of all these islands are of a dark brown complexion, and many of both sexes present almost perfect models of the human figure. Their behaviour to Captain Cook was so friendly, that from that circumstance he gave their islands the name which they now bear. They have exhibited, nevertheless, in more recent times some of the worst features of the savage character; their wars are carried on with reckless ferocity, and they make no scruple to murder the crews of such vessels as fall into their hands. They are equally perfidious and cruel to strangers; and yet among themselves they are said to be well-behaved, and even ardent in their attachments.

§ 6. *The Navigator's or Samoa or Hamoa Islands.*

These islands are situate to the north-east of the Fidji and Friendly Islands; they are eight in number, named *Maūna*, *Oros nua*, *Ofu*, *Tutuila*, *Upolu*, *Manone*, *Aborima*, and *Savaii*. The parallel of 14° S. and the meridian 170° W. pass through the centre of the group. *Maūna* is circular, and so high as to be visible at sea for 40 or 50 miles, with a bold and lofty shore. *Tutuila* is a fine romantic island, 80 or 100 miles in circumference. *Upolu* is from 150 to 200 miles in circumference, and so lofty as to be visible for 50 or 60 miles, richly verdant to the top, and possessing several fine harbours. *Savaii*, the largest of the group, is 350 miles in circumference, with mountains visible for 60 or 70 miles, all clothed with noble forests, and presenting a scene of beauty, which in extent and importance yields to that of few islands. *Aborima* is only two miles in circumference, and 200 or 300 feet high; it is the crater of a volcano, precipitous and inaccessible outside, but forming a fine amphitheatre within. The islands produce abundance of the usual vegetable food of Polynesia, and abound with dogs, poultry, and hogs. The men are of colossal stature, and finely formed; their complexion is very light. In talent and character they much resemble their neighbours.

§ 7. *Cook's or the Hervey Islands.*

These are seven in number, between 18° and 23° S. lat., and 157° and 160° W. long., and are named *Nauke*, *Mitiaro*, *Atiu*, *Rarotonga*, *Hervey's Island*, *Aitutaki*, and *Mangaia*. They are, however, small and unimportant. *Rarotonga*, the largest, is about 30 miles in circumference, surrounded by a reef, and rises into a mass of mountains of romantic appearance. It has several good boat harbours. The others are of much the same character, only moderately hilly, but verdant and beautiful. The state of society is similar to that of Tahiti, and the missionaries have succeeded in converting a considerable number of people.

§ 8. *The Society, Georgian, and Low Islands, with the Dangerous Archipelago.*

These together form a widely extended group, situate between 12° and 157° W. long., and 14° and 25° S. lat. The western portion is generally named the Society Islands; and the central, including Tahiti, the Georgian; while the Low Archipelago consists of a very numerous group to the east and north-east of the two former. *Tahiti* or *Otaheite*, is the largest of them all. It consists of two peninsular mountain masses, connected by a low isthmus; the larger of which is almost round, with a circumference of nearly 90 miles; and the smaller, oval, with a circumference of 50; both are surrounded by a coral reef. Each of the peninsulas is bordered by a belt of low land, from a furlong to a mile in width, from which the central mountains rise by a slow and gradual slope. The summit of the large peninsula is between 6000 and 7000 feet above the level of the sea, and is said to contain a lake of yellow water, probably the crater of an extinct volcano. There is another curious lake about 1500 feet above the level of the sea, and about a mile in circumference, in the bottom of a deep circular valley, surrounded by precipitous mountains. The lowland and the valleys, with their intervening ridges, are beautiful, being clothed with a great variety of trees and abounding with every vegetable production suited to the soil and climate. Since the beginning of the present century, the guava shrub was introduced from Norfolk Island, and in spite of every effort to check its progress, now encroaches on all the moist and fertile land, so that all the woodlands and bush, for miles in extent, are composed of this shrub, which bears a profusion of large and delicious fruit. The indigenous animals are hogs, dogs, and rats; but saddle horses, imported from South America, are now in general use; cattle are also numerous, and ships may be supplied with beef of good quality at 2d. a pound. Cats have also been naturalized, and are found to be extremely useful. Common poultry are abundant; and the woods are filled by vast numbers of parrots and pigeons. The shores abound with sea fowl, and the sea with excellent fish. The inhabitants are of an olive colour or light copper. The men are generally above the middle size; the chiefs are almost uniformly tall, muscular, and well limbed; the women of the upper ranks are also tall, with limbs finely turned, and soft and delicate skins; black, sparkling, and expressive eyes; beautifully white and regular teeth; jet black hair, generally ornamented with flowers, and a flowery, easy, and graceful gait. They have advanced but little in civilized habits, since the days of Wallis and Cook; their dwellings are still much the same as described by their earliest visitors; and Euro-

pean clothing is adopted, but to a very small extent. They have been nearly all converted to Christianity; but their principal improvement consists in religious observances, and in the acquisition to a great degree of the elements of literary education. They amount to about 18,000 or 20,000, under the pastoral care of eight missionaries. At Tahiti and all the Society Islands, elephantiasis prevails to a great extent, not only among the natives, but also among the Europeans. The commerce of the island is confined to the exportation of pearl shells and pearls, sugar, cocoa-nut oil, and arrow root; and it is conducted entirely by foreigners, the natives not possessing any vessel larger than a double canoe. The island, however, is much frequented by British and American shipping, and consuls from both nations have been appointed to reside at Tahiti. The government used to be administered by a king or queen, and in the districts by chiefs, who formed a sort of feudal aristocracy; but the island has been recently (in 1812) taken possession of by the French government, and must now be reckoned among the colonies of France. The other principal islands of the Georgian and Society group are: *Eimeo*; *Teturoa*; *Tapamanoa* or *Saunders's Isle*; *Huaneine*; *Raiatea* (*Ulitea* of Cook); *Otaha*, *Bolabola* or *Borabora*; and *Maurua*. They are all, like Tahiti, lofty, volcanic, and fertile; and their inhabitants are generally better Christians than the Tahitians. The *Low Islands* and *Dangerous Archipelago* consist of a few high or hilly islands, and 70 or 80 groups of islets surrounding lagoons, like the atollons of the Maldives, besides many mere reefs. The *Dangerous Archipelago* is deserving of the name; for numerous coral reefs only a few feet above water obstruct navigation, while currents and strong squalls add to the risk. Most of the lagoons have harbours accessible to shipping.

§ 9. *The Austral Isles*

Form a long chain to the southward of the Society and Low Islands, and might indeed be considered as a part of the same group. The principal are *Kimatawa*, *Oheteroa* or *Rurutu*, *Toubouai*, *Raivai*, *Osborne*, *Opuro*, *Bass*, and *Rapa*. They are high, fertile, and beautiful. To the south-south-west of Rapa, at the distance of about 640 miles, is a solitary reef named *Lancaster*.

§ 10. *The Marquesas and Washington Islands.*

These are properly one group; the former name was bestowed upon them by Mendana their first Spanish visitant in 1595, in honour of the Marquis of Mendoza, the viceroy of Peru; the latter name has been applied by Anglo-American voyagers to one portion of the group, in honour of their great president, as having been first explored by them. The centre of the group may be reckoned about 5° 30' S. lat., and 139° 30' W. long. They belong to the class of high islands; their mountains, some of which rise to the height of 5000 or 6000 feet, are extremely broken and craggy, with a sandy belt of land between them and the sea; but the intervening valleys are singularly fertile and picturesque, being copiously watered by streams, which form numerous cascades, one of which, in *Noukahiva*, is said to have a fall of 2000 feet. The men are described as tall, robust, and among the most finely formed of the human race; their complexion even is said by some voyagers to be little darker than that of Europeans; but is completely hid in the elder people by tattooing. Captain Waldegrave, however (in 1833), says that their complexion is a dark copper. The women have handsome features, but a slouching gait and ill formed limbs; and are not remarkable for modesty or propriety of conduct. The character of the people is that which generally belongs to savages. In their ordinary intercourse they are friendly, open, and engaging; but they carry on war with the most deadly ferocity, piercing the brain of the vanquished enemy, and eagerly drinking his blood. The islands have, like *Otaheite* been taken possession of by the French. The principal islands are *Noukahiva*, *Ouahouga*, *Fetoujou* (*Hood Island* of Cook), *Ohiva* or *Dominica*, *Motane* or *San Pedro*, *Fatouica* or *Madalena*, *Tawattte*, or *Santa Christina*, *Lincoln*, *Ouapoa* or *Trevennen*, *Haiou*, &c.

§ 11. *The Hawaiian or Sandwich Islands.*

These form a solitary group far to the north of those we have been describing. They are thirteen in number, eight of which are of moderate size, while the other five are mere islets. They are situate between 19° and 22° N. lat., and 155° and 160° W. long. The names of the eight larger islands are: *Hawaii* or *Owhyhee*; *Maui* or *Mooee*; *Kahoolawe* or *Tahaurave*; *Molokai*, *Morokai* or *Morotoi*; *Ranai* or *Lanai*; *Oahu* or *Woohoo*; *Kauai*, *Tauai* or *Atooi*; *Nihau* or *Onehou*. They all are hilly and mountainous, exhibiting in strong contrast luxuriant verdure and volcanic sterility, and some of them present a very forbidding aspect. The soil is chiefly composed of decayed vegetable and volcanic matter, and is capable of producing any thing; indeed, its fault is that of being too rich. The native vegetable productions are yams, taro, sweet potatoes, plantains in great variety, bread-fruit, sugarcane, nono, olcai, turmeric, ginger, cotton, and sandalwood. European and West India fruits flourish, and require little attention. Taro forms the principal food of the natives; but many European vegetables are now produced, and sold in the markets; particularly tobacco, melons, water melons, rice, grapes, cucumbers, cabbages, beans, oranges, pine-apples, and the cloth plant. The indigenous quadrupeds found by Captain Cook were hogs, dogs, and rats; but there are now horses, asses, beeves, and goats; fowls, ducks, and geese are abundant. The people call themselves *Hawaiians*, after the principal island. The common people are of moderate stature; but the chiefs, both male and female, are remarkable for their great size and flabby obesity. Their complexion is olive. They are now a mild race, tolerably docile and capable of improvement; they are expert at athletic exercises, and as swimmers, are unrivalled. In 1836 the population of the inhabited islands was as follows:

Hawaii,	39,193	Kahoolawe,	80
Oahu,	27,798		
Maui,	24,195	Total,	108,393
Tauai or Atooi,	9,927	Total in 1832,	129,814
Molokai,	6,000		
Lanai,	1,200	Decrease in four years,	21,421

The Hawaiians have been Christianized by American Calvinistic missionaries, who are supported by a society in the United States; but their system of instruction is so entirely religious, and so exclusively directed to the observance of the Calvinistic forms of worship, and the inculcation of Calvinistic doctrines, that it has proved of less social advantage to the people than might have been expected. The labours of the missionaries consist exclusively in preaching, and in teaching schools. They have undoubtedly exercised a very beneficial influence on the people, who may now be called a Christian nation; but they have Christianized without civilizing them. They have overlooked the fact that the Bible teaches neither political economy nor agriculture. The government, in consequence, remains in all respects the same as it was before the missionaries landed. It exhibits a decidedly monarchical character; there being one sovereign chief or king, under whom subordinate chiefs keep the people in the most abject dependence. To the missionaries, however, is due the credit of having reduced the language to writing; they have also translated the Bible into the native tongue; and from the mission press there is now issued a journal called the *Hawaiian Monitor*, filled with extracts from the Bible, scraps of natural history, and other subjects calculated to interest the people.

When first discovered by Cook, the inhabitants were in the same state of civilization as the other Polynesian; but the islands being most conveniently situated as a station for vessels sailing between China and the north-west coast of America, they were in consequence frequently visited both by Europeans and Americans, who introduced some of the arts, and not a few of the vices of Europe. The islands formed likewise so many independent states; but towards the end of last century and the beginning of the present, they were all subjected to one monarchy by King Tamehameha I., who seems to have fully appreciated the advantages of European improvements. He was a great reformer as well as a conqueror, but adhered tenaciously to the faith and customs of his forefathers; and it was only his son and successor Riho-Riho, or Tamehameha II. who abolished idolatry, so far as connected with the government, and laid the foundation of social improvement among his subjects. This happened in 1819: in the following year missionaries were first allowed to settle in the islands; and though the novelty of the new religion has now lost its effect, and the people have relapsed, in a great measure, into their former habits, yet the seeds of civilization have been sown among them, and may at some future time produce good fruits.

Honolulu or *Honololu*, in the island of Oahu, is the seat of government and trade. It is a considerable town, containing 6000 or 7000 inhabitants, and several comfortable houses; and is protected by a small fort. As a port it possesses many advantages, and supplies for shipping are abundant, and reasonable in price. The commerce, which is chiefly carried on by Anglo-Americans, consists in the importation of cattle from California and Mexico, for which either Chinese or American produce is returned; or of sandalwood, and furs from the north-west coast of America, for the Chinese market.

Hawaii or *Owhyhee*, the largest island in the group, and indeed in Polynesia, is above 100 miles in length from north to south, and about 70 or 80 in breadth, forming a sort of triangle with irregular sides. It contains three lofty volcanic mountains, and, besides these, contains also the largest active volcano at present known. *Mouna-kea* or *Mouna-kaah* (White Mountain) rises to the elevation of 13,764 feet above the level of the sea; *Mouna-roa* or *Mouna-Loa*, to 13,430; and *Huaraui* or *Whararui*, to 8,457. The ascent of *Mouna-kea* is comparatively easy. Up to 8700 feet it is covered with luxuriant vegetation; from that point to 12,000 feet, the flanks of the mountain are broken into deep chasms and ravines, interspersed with numerous small extinct craters; at 12,700 feet, a vast table-land or plain is spread out, covered with sand, gravel, stones, and scoriae, above which rise eleven peaks or humps, forming the summits of the mountain, which, however, do not reach the line of perpetual snow. The ascent of *Mouna-roa* is more difficult; the limit of vegetation rises to 10,724 feet; but all above that is an immense dome of lava, entirely destitute of verdure; and on the very summit is an enormous crater, 6½ miles in circumference, enclosed in a larger one, which is 2½ miles round. Both of these mountains were ascended, and their elevations barometrically ascertained, by Mr. David Douglas, the botanist, in January 1834. — (*Journal R. Geog. Soc. Lond.* IV. 333.) They are both situated considerably inland, and form together the nucleus of the island. *Huaraui* is situated on the west coast, but has not been in activity since 1800. There are many other dormant or extinct craters; but *Kirauca* or *Kirua* excels all the others in extent and terrific grandeur. It is situated at the eastern base of *Mouna-roa*, about 3873 feet above the level of the sea, according to Mr. Douglas, or, according to others, 4104. It differs from all other volcanoes in not forming a cone-shaped mountain; it is, on the contrary, a vast sunken pit, of an oval but somewhat irregular shape, about 1000 feet deep, with very steep and almost perpendicular sides. The bottom consists of half-cooled scoriae, intermixed with torrents of earth in igneous fusion, and gases, constantly effervescing, boiling, spouting, and rolling in all directions, like the waves of the sea in a storm, and dashing like an infuriated surf on the edges of its cauldrons. At the south-south-west point is the haule-mau-mau or great abyss, to which the Hawaiians used to consign the bones of their chiefs, and where they made their offerings to the goddess Pele, who presided over the scene. This exhibits a most frightful area of bubbling red hot lava, incessantly changing its level, sometimes rolling long curling waves, with broken masses of cooled crust, to a side, and again furiously turning them back with a terrific noise. Around are blocks of lava, scoriae, and slags, in every variety of form and combination; here forming deep and rugged precipices of numerous layers, there all dispersed, cracked, and broken. In extent, grandeur, and intensity of action, *Kirauca* is unrivalled among volcanoes; but, though from time immemorial it has been prodigiously active, it has never been known to overflow, except in the year 1787, when a dreadful eruption took place, which lasted seven days and nights. The accounts given by those who have visited the place are extremely various; which may be accounted for by the circumstance of the interior of the pit undergoing continual changes. Dr. Goodrich Gardner, as he states in a notice read to the Royal Geographical Society, has conversed with natives not more than thirty or forty years of age, who have seen salt water at the bottom of the crater. There were then four ledges of rock between the upper margin and the bottom; it has since filled up so far as to leave only one; and as the others are said to have been of almost equal depth (800 feet) the bottom must have been then nearly at the level of the sea. At the time, there was a saltwater lake at the bottom of the one end of the crater, while lava was boiling up at a little higher level at the other. A new volcano broke out in 1832, on the north-eastern declivity of *Mouna-roa*, about 20 miles from *Kirauca*, but has not been active since. Dr. Gardner saw no traces of stratified rocks in the lower regions of *Hawaii*, near the sea shore; and he states it as a curious fact, showing the influence of moisture on vegetation, that on *Mouna-roa* the forests are limited to the sides extending from north to south-east, there being hardly any wood on the sides extending from north-west to south-west, which renders the ascent on that side the most easy. A line of craters stretches almost across the island, in a direction east and west to *Mouna-roa*.

§ 12. Kermadec Islands.

These are a small group, consisting of three small inhabited islands, with some desert islets and reefs, situated about midway between the Friendly Islands and New Zealand, in lat. 30° S. The names of the three inhabited islands are *Rouot* or *Sunday*; *Recherche* or *Macaulay*; and *Curtis*. To the south of them are *L'Esperance Rocks*.

§ 13. Scattered Islands.

To the westward of the Sandwich Islands extends a long chain of scattered islets and rocks, in the following order: *Bird's Isle*; *Necker*; *Basse-Française*; *Gardner*; *Two Brothers Rock*; *Maro Reef*; *Laysan*; *Lisianski*; *Philadelphia*; *Pearl* and *Hermes Bank*; *Care*; *Byers*; *Patrocinio*; *Morrell*; *Roca de Plata Crespo*; *Rico de Oro* of the Spaniards; *Rico de Oro* or *Lo's Wife*; *Cabanus*; *Ganges*; *Week's Reef*; *Krusenstern Rock*, to the south-west of *Laysan*; and *Mellish Bank*, north of *Byers*.

Between Gilbert's Islands and the New Hebrides on the west; the *Fidji*, *Friendly*, and *Navigator's Islands*, on the south; the *Society*, *Low Islands*, and *Marquesas*, on the south-east; and the *Sandwich Islands* on the north, the following may be mentioned: *Howland*, *Arthur*, *Kemid's*, *Jerry Birney*, *Phoenix*, *Sidney*, *Duke of York's*, *Duke of Clarence's*, *Solitaria*, *Danger* or *St. Bernardo*, *Duke Alexander I.*, *Humphrey*, *Suvorof*, *Pergrino*, *Penrhyn*, *Woodstock*, *Caroline*, *New York*, *Starbuck*, *Volunteer*, *Maldon*, *Brook*, *Bunker*, *Christmas*, *Putneyra*, *Washington*, *Fanning*, *Walker's*, *Smith's*.

To the eastward of the Low Islands: — *Oeno, Gambier, Piteairn, Elizabeth, Ducie's, Easter, Sala-y-Gonzes, Waitou. Gambier Islands*, consist of five large, and several smaller islands, all within one reef, through which there is a navigable ship channel to the lagoon. The largest rises 1428 feet above the level of the sea. *Piteairn Island* is only three miles in length by one in breadth, but has acquired some notoriety as being the place where several of the mutineers of the *Bounty*, in 1789, established themselves, and planted a small colony. It is volcanic, of a fertile soil, and its peaks rise about 1000 feet above the level of the sea. Its village, named Adamstown, is situate on the north side, in $25^{\circ} 4'$ S. lat., and $130^{\circ} 16'$ W. long. *Easter Island, or Vahou*, 20° E. of the Low Islands, in the direct route between them and Cape Horn, is only 20 miles in circumference, but is bold and rocky, strewn with lava, and contains numerous volcanic craters, which are now extinct. It formerly contained some traces of ancient civilization, in the shape of colossal statues, representing, though rudely, the upper parts of the human body; but these have now disappeared.

ANTARCTIC REGIONS.

DURING the sixteenth and seventeenth centuries, cosmographers entertained the opinion that there must be a continent towards the south pole, to counterbalance the mass of land which occupies so large a portion of the northern hemisphere; and, accordingly, in the maps of those centuries, this imaginary continent is represented under the name of *Terra Australis Incognita*. This notion continued to prevail till after the middle of the eighteenth century, when it was dispelled by the result of Cook's second voyage; that illustrious navigator having in the years 1772-3-4-5 traversed the Southern Ocean, in different directions, round the globe, without discovering any other land than the Island of Georgia and Sandwich land. In 1816, however, Captain William Smith discovered a group of lofty snow-capt islands, to which he gave the name of *New South Shetland*, to the S. E. of Cape Horn. A few years later, Captain Weddell discovered the *New Orkneys*, in the same quarter, and in 1823 penetrated to $74^{\circ} 15'$ S., the farthest point yet reached. *Trinity Land* was discovered by the Russian navigator, Bellinghausen; and in 1829, two small islands, named *Peter* and *Alexander*, between 69° and 70° S. lat., were also discovered by the Russians. In 1831, Captain Biscoe discovered *Enderby's Land*, under the Antarctic Circle, S. E. of the Cape of Good Hope; and in the following year, *Graham's Land, Biscoe Isles, and Adelaide Island*, in the same latitude, but lying due south of Cape Horn. In January 1839, a French expedition, under Captain D'Urville, discovered a tract of land, extending about 150 miles, between 66° and 67° S. lat., and 136° and 142° E. long., with a medium elevation of 1300 feet above the horizon. The snow and ice, which covered it, gave its surface almost a level appearance; but little else was observable than ravines, inlets, and projections, which presented not a single trace of vegetation. Captain D'Urville named his discovery *Terre Adelia* (*Adelia's Land*). On the very same day, an American scientific expedition discovered land in $64^{\circ} 50'$ S. lat., and $154^{\circ} 18'$ E. long.; and one of the ships, the *Vincennes*, Captain Wilkes, ran down the coast, from $154^{\circ} 18'$ to $97^{\circ} 45'$ E. long., about 1700 miles, within a short distance of the land, being often so near as to get soundings with a few fathoms of line. In February 1839, Captain Balleny, of London, discovered the *Balleny Islands*, the central one of which lies in $66^{\circ} 41'$ S. lat., and $163^{\circ} 11'$ E. long. In 1840, an expedition was fitted out in Britain, under the command of Captain James Ross, R. N., for the purpose of making scientific, and particularly magnetic, observations in the Southern Ocean, and of ascertaining the position of the southern magnetic pole. Captain Ross first sailed to Hobart town, in Van Diemen's Land, and in November 1840, left that place for his first summer's research in the Antarctic regions. He first steered eastward to New Zealand, and leaving the Auckland Islands on the 12th of December, he proceeded to the southward, and entered the Antarctic circle on the 1st of January 1841, where his farther progress was stopped by the pack-edge of the ice. On 5th of January, he succeeded in entering the ice about 10½ miles farther east, in lat. $66^{\circ} 45'$ S., and long. $174^{\circ} 16'$ E.; after penetrating a few miles, he was enabled to make his way to the southward with comparative ease and safety; and on the morning of the 9th, after sailing more than 200 miles through the pack, he gained a perfectly clear sea, and bore away south-west towards the magnetic pole. On the morning of the 11th, land was discovered in the distance, which, as it was approached, rose in lofty mountain peaks of from 2000 to 12,000 feet in height, completely covered with snow, with descending glaciers projecting many miles into the ocean, and presenting a perpendicular face of lofty cliffs. On the 12th Captain Ross landed on a small island, and took possession of the country in the name of Queen Victoria, whose name he has bestowed upon it. The island is composed wholly of igneous rocks, and is situate in $71^{\circ} 56'$ S. lat., and $171^{\circ} 7'$ E. long. Pursuing his course "along this magnificent land," on the 28th "a mountain, of 12,400 feet above the level of the sea, was seen emitting flame and smoke in splendid profusion. This magnificent volcano received the name of *Mount Erebus*, and is situate in $77^{\circ} 32'$ S. lat., and $167^{\circ} 0'$ E. long.; an extinct crater to the eastward, of somewhat less elevation, was called *Mount Terror*;" both after the ships which composed the expedition. The mainland preserved its southerly trending, and Captain Ross continued to follow it till his further progress in that direction was stopped by a lofty barrier of ice, extending E. S. E. Pursuing the examination of this barrier, he traced its continuity for 300 miles, and reached his highest latitude, $78^{\circ} 4'$ S.; but was prevented by the ice from reaching the magnetic pole, or finding shelter for his ships on any part of the coast, which he found at last to terminate abruptly in $70^{\circ} 40'$ S. lat., and 165° E. long. The second year was spent in traversing the Antarctic Ocean, without making any remarkable discoveries. In the third year, the expedition left the Falkland Islands, 17th December 1842, and sailing to the south and west of Cape Horn, discovered land on the 28th. On the 31st they succeeded in reaching a volcanic island, situate in S. lat. $61^{\circ} 12'$, and W. long. $56^{\circ} 49'$, in the bosom of a great gulf, about 40 miles wide, and about the same extent inland, bordered on its western side by snowy ranges, among which rises a magnificent table-topped mountain to the height of 7000 feet. This gulf has been named the *Gulf of Erebus and Terror*. The island, though not more than two miles in diameter, projects a perfectly formed cone to the height of 3500 feet above the level of the sea. The expedition subsequently ascertained the insularity of the land discovered by Brandfeldt in 1820, and named by D'Urville, in 1839, Louis-Philippe's land; and returned to England in August 1843.

Besides these new discoveries, there are within the limits of the Southern Ocean several islands, too far distant from any of the great continents to be considered as belonging to them, and therefore not yet noticed in this work. In 1772, two French Captains discovered a group of high and barren islands to the eastward of the Cape of Good Hope, which, from them, have been named *Marion* and *Crozet's Islands*; the two most westerly were afterwards named by Cook, who passed between them in

December 1776, *Prince Edward's Islands*, in honour of the late Duke of Kent, father of her Majesty Queen Victoria. Farther east, between 48° and 50° S. lat., and 65° and 67° E. long., is *Kerguelen's Land*, or the *Island of Desolation*, discovered by Captain Kerguelen in 1772. It is about 100 miles in length, and about 60 in breadth; but, owing to the coldness and moisture of the climate, it is almost totally destitute of vegetation. It is indeed represented as one of the bleakest and most desolate spots on the globe; but fossil wood and coal have been recently discovered in it by Captain Ross, in the course of his scientific expedition to the South Magnetic Pole. It seems to be chiefly composed of trap and other igneous and volcanic rocks, which rise into hills from 500 to 2500 feet high. The coast is deeply indented with bays and inlets, and the whole surface is intersected by lakes and water-courses. North-east of Kerguelen's land are two small solitary islands, named *St Paul's* and *Amsterdam*, which were discovered by the Dutch navigator Vlaming in 1696. Vlaming, it appears, applied the name of *Amsterdam* to the northern island, and *St. Paul's* to the southern; but the islands have been confounded by English navigators, and the names transposed, so that the southern island is generally called *Amsterdam*, and the northern, *St. Paul's*. But, be this as it may, the northern island is situate in $37^{\circ} 52'$ S. lat., and $77^{\circ} 35'$ E. long., and has an elevation of 2760 feet. It is 12 miles in circuit, and in fine weather may be seen from the anchorage of the southern island, a distance of 60 miles, on the same meridian. The latter, the original *St. Paul's*, is 9 miles in length by 5 in breadth, of volcanic formation, without a tree or shrub, and destitute of vegetation, except coarse grass, and a kind of rushes or reeds. It abounds with hot springs, the water of which is wholesome, though somewhat offensive to the smell and taste. It contains a magnificent oval-shaped basin, large enough to contain the whole British navy, which is evidently the crater of an extinct volcano, with deep water, and an entrance 25 yards wide.—(*Journal R. Geog. Soc.* IX. 517. *Staunton's Account of Macartney's Embassy*, I. 256.)

Sandwich Land, discovered by Cook in 1775, between 57° and 61° S. lat., and 27° and 30° W. long., has since been found to consist of a number of islands, which are constantly covered with snow. The *Isle of Georgia*, between $53^{\circ} 57'$ and $54^{\circ} 57'$ S. lat., and $38^{\circ} 13'$ and $35^{\circ} 34'$ W. long., about 21 leagues in length, by 10 in breadth, is also a bleak and barren region, traversed by very lofty mountains, constantly covered with snow; the heat of summer being sufficient only to melt the snow on the low ground of the N.E. side.

GREAT BRITAIN.

COMPARATIVE STATEMENT of the POPULATION in 1801, 1811, 1821, 1831, and 1841, showing the INCREASE OR DECREASE in each County.

ENGLAND.

Counties.	1801.	Increase per Cent.	1811.	Increase per Cent.	1821.	Increase per Cent.	1831.	Increase per Cent.	1841.
Bedford,.....	63,393	11	70,213	19	83,716	14	95,483	13	107,936
Berks,.....	109,215	8	118,277	11	131,977	10	145,389	10	161,147
Buckingham,.....	107,444	9	117,650	14	134,068	9	146,529	6	155,983
Cambridge,.....	89,346	13	101,109	20	121,900	18	143,955	14	164,459
Chester,.....	191,751	18	227,031	19	270,098	24	334,391	18	395,660
Cornwall,.....	188,269	15	216,667	19	257,447	17	300,938	13	341,279
Cumberland,.....	117,230	14	133,744	17	156,124	10	169,681	4	178,038
Derby,.....	161,142	15	185,487	15	213,333	11	237,170	14	272,217
Devon,.....	343,001	12	383,308	15	439,040	13	494,478	7	533,460
Dorset,.....	115,319	8	124,693	16	144,499	10	159,252	9	175,043
Durham,.....	160,361	11	177,625	17	207,673	22	253,910	27	324,284
Essex,.....	226,437	11	252,473	15	289,424	10	317,507	8	344,979
Gloucester,.....	250,809	12	285,514	18	335,843	15	387,019	11	431,383
Hereford,.....	89,191	5	94,073	10	103,243	7	111,211	2	113,878
Hertford,.....	97,577	14	111,654	16	129,714	10	143,341	9	157,207
Huntingdon,.....	37,568	12	42,208	15	48,771	9	53,192	10	58,549
Kent,.....	307,624	21	373,095	14	426,016	12	479,155	14	548,337
Lancaster,.....	672,731	23	828,309	27	1,052,859	27	1,336,854	24	1,667,054
Leicester,.....	130,081	16	150,419	16	174,571	13	197,003	9	215,867
Lincoln,.....	208,557	14	237,891	19	283,058	12	317,465	11	362,602
Middlesex,.....	818,129	17	953,276	20	1,144,531	19	1,358,330	16	1,576,636
Monmouth,.....	45,582	36	62,127	15	71,833	36	98,130	36	134,355
Norfolk,.....	273,371	7	291,999	18	314,368	13	390,051	5	412,661
Northampton,.....	131,757	7	141,353	15	162,483	10	179,336	10	199,228
Northumberland,.....	157,101	9	172,161	15	198,965	12	222,912	12	257,278
Nottingham,.....	140,350	16	162,900	15	186,873	20	225,327	10	249,910
Oxford,.....	109,620	9	119,191	15	136,971	11	152,156	6	161,443
Rutland,.....	16,356	..	16,380	13	18,487	5	19,385	10	21,302
Salop,.....	167,639	16	194,298	6	206,153	8	222,938	7	239,048
Somerset,.....	273,750	12	303,180	17	355,314	13	404,200	7	435,982
Southampton (Hants),.....	219,656	12	245,080	15	283,298	11	314,280	12	355,004
Stafford,.....	239,153	21	295,153	17	345,895	19	410,512	24	510,504
Suffolk,.....	210,431	11	234,211	15	270,512	9	296,317	6	315,073
Surrey,.....	269,043	20	323,851	23	398,658	22	486,334	19	582,678
Sussex,.....	159,311	19	190,083	22	233,019	17	272,340	10	299,753
Warwick,.....	208,190	10	228,735	20	274,392	23	336,610	19	401,715
Westmoreland,.....	41,617	10	45,922	12	51,359	7	55,041	2	56,544
Wilts,.....	185,107	5	193,828	15	222,157	8	240,156	8	258,733
Worcester,.....	139,333	15	160,546	15	181,424	15	211,365	10	233,336
York (East Riding),.....	110,992	16	134,437	14	154,010	10	168,891	14	194,936
City of York & Ainstey,.....	24,393	12	27,304	12	30,451	17	35,362	8	3
York (North Riding),.....	158,225	7	169,391	11	187,452	2	190,756	7	242,443
York (West Riding),.....	565,282	16	655,042	22	801,274	22	976,350	18	1,154,101
England,.....	8,331,434	14	9,533,827	17	11,261,437	16	13,091,005	14	14,955,138

WALES.

Counties.	1801.	Increase per Cent.	1811.	Increase per Cent.	1821.	Increase per Cent.	1831.	Increase per Cent.	1841.
Anglesey,.....	33,806	10	37,045	21	45,063	7	48,325	5	50,891
Brecon,.....	31,633	19	37,735	16	43,603	10	47,763	11	55,603
Cardigan,.....	42,956	17	50,260	15	57,784	10	64,780	5	68,766
Carmarthen,.....	67,317	15	77,217	17	90,239	12	100,740	6	106,326
Carnarvon,.....	41,521	19	49,336	17	57,958	15	66,418	22	81,053
Denbigh,.....	60,352	6	64,240	19	76,511	8	83,629	6	88,866
Flint,.....	39,622	17	46,518	15	53,781	11	60,012	10	66,919
Glamorgan,.....	71,525	18	85,067	19	101,737	24	126,612	37	171,188
Merioneth,.....	27,506	4	30,924	11	34,382	3	35,315	11	39,332
Montgomery,.....	47,978	8	51,931	15	59,899	9	66,482	4	69,219
Pembroke,.....	56,280	7	60,615	22	74,009	9	81,425	7	88,044
Radnor,.....	19,050	9	20,900	7	22,459	9	24,651	2	25,356
Wales,.....	541,546	13	611,788	17	717,438	12	806,182	13	911,603

SCOTLAND.

<i>Counties.</i>	1801.	<i>Increase per Cent.</i>	1811.	<i>Increase per Cent.</i>	1821.	<i>Increase per Cent.</i>	1831.	<i>Increase per Cent.</i>	1841.
Aberdeen,	123,082	10	135,075	15	155,387	14	177,657	8·2	192,387
Argyll,	71,839	19	85,585	14	97,316	4	100,973	3·9*	97,371
Ayr,	84,306	23	103,954	22	127,299	14	145,055	13·4	164,356
Banff,	35,807	2	36,968	19	43,561	12	48,604	3·	49,679
Berwick,	30,621	1	30,779	8	33,385	2	34,048	1·1	34,438
Bute,	11,791	2	12,033	15	13,797	3	14,151	10·9	15,740
Caithness,	22,609	4	23,419	29	30,238	14	34,529	4·8	36,343
Clackmannan,	10,858	11	12,010	10	13,263	11	14,729	29·7	19,155
Dumbarton,	20,710	17	24,189	13	27,317	22	33,211	33·3	44,296
Dumfries,	54,597	15	62,960	13	70,878	4	73,770	1·3*	72,830
Edinburgh,	122,954	21	148,607	29	191,514	15	219,345	2·8	225,454
Elgin (Moray),	26,705	5	28,108	11	31,162	10	34,231	2·2	35,012
Fife,	93,743	8	101,272	13	114,556	12	128,839	8·9	140,140
Forfar,	99,127	8	107,264	6	113,430	23	139,606	22·	170,520
Haddington,	29,986	4	31,161	13	35,127	3	36,145	1·*	35,886
Inverness,	74,292	5	78,336	15	90,157	5	94,797	3·	97,799
Kincardine,	26,349	4	27,439	6	29,118	8	31,431	5·1	33,075
Kinross,	6,725	8	7,245	7	7,762	17	9,072	3·5*	8,763
Kirkcudbright,	29,211	15	33,684	15	38,903	4	40,590	1·2	41,119
Lanark,	146,699	31	191,752	27	244,387	30	316,819	34·8	426,972
Linlithgow,	17,814	9	19,451	17	22,685	3	23,291	15·2	26,872
Nairn,	8,257	..	8,251	9	9,006	4	9,354	6·	9,217
Orkney and Shetland,	46,824	..	46,153	15	53,124	10	58,239	3·	61,065
Peebles,	8,735	14	9,935	1	10,046	5	10,578	5·*	10,499
Perth,	126,366	7	135,093	3	139,050	3	142,894	3·4*	137,300
Renfrew,	78,056	19	92,596	21	112,175	19	133,443	15·9	155,072
Ross and Cromarty,	55,343	10	60,853	13	68,828	9	74,820	4·3	78,685
Roxburgh,	33,682	11	37,230	10	40,892	7	43,663	5·4	46,025
Selkirk,	5,070	16	5,889	13	6,637	2	6,833	16·9	7,990
Stirling,	50,825	14	58,174	12	65,376	11	72,621	13·1	82,057
Sutherland,	23,117	2	23,629	..	23,840	7	25,518	3·4*	24,782
Wigtown,	22,918	17	26,891	23	33,240	9	36,258	21·5	39,195
Barracks, .....	..	..	..	..	..	..	..	..	..
Scotland,	1,599,068	14	1,805,688	16	2,093,456	13	2,365,114	11·1	2,620,184

* Decrease.

ISLANDS IN THE BRITISH SEAS.

<i>Islands.</i>	1801.	<i>Increase per Cent.</i>	1811.	<i>Increase per Cent.</i>	1821.	<i>Increase per Cent.</i>	1831.	<i>Increase per Cent.</i>	1841.
Jersey,	28,600	27·9	36,582	30·	47,541
Guernsey, Alderney, Sark, Herm,) and Jethou,	29,827	25·4	26,128	9·2	28,521
Man,	40,081	2·2	41,000	17·	47,975
Total,	89,508	15·8	103,710	19·6	124,010

SUMMARY.—GREAT BRITAIN AND ISLANDS IN THE BRITISH SEAS.†

	1801.	<i>Increase per Cent.</i>	1811.	<i>Increase per Cent.</i>	1821.	<i>Increase per Cent.</i>	1831.	<i>Increase per Cent.</i>	1841.
England,	8,331,431	14½	9,538,827	17½	11,261,437	16	13,091,005	14·5	14,995,138
Wales,	541,546	13	611,788	17	717,438	12	806,182	13·	911,603
Persons ascertained to have been travelling by Rail- ways or Canals during the night of June 6, 1841, .....	..	..	..	..	..	..	..	..	5,016
England & Wales,	8,872,980	14	10,150,615	17	11,978,875	16	13,897,187	14·5	15,911,757
Scotland,	1,599,068	14	1,813,688	16	2,093,456	13	2,365,114	11·1	2,620,184
Islands in the Bri- tish Seas, .....	..	..	..	..	89,508	15·8	103,710	19·6	124,040
Great Britain,	10,472,048	14	11,964,303	..	14,161,839	15	16,366,011	14·	18,655,981

† This Return includes only such part of the Army, Navy, and Merchant Seamen as were at the time of the Census within the kingdom on shore

SCOTLAND.

ACCOUNT of the POPULATION within each PARLIAMENTARY BOUNDARY in 1841.

NAME OF CITIES OF ROYAL & PARLIAMEN- TARY BURGHS.	PERSONS.			NAME OF CITIES OF ROYAL & PARLIAMEN- TARY BURGHS.	PERSONS.		
	Males.	Females	Totals.		Males.	Females	Totals.
CITIES returning Two Members each:—				Kilmarnock District—			
Edinburgh,	58,365	74,612	132,977	Dumbarton,	2,160	2,231	4,391
Glasgow,	120,044	135,606	255,650	Kilmarnock,*	9,191	10,207	19,398
CITIES and TOWNS re- turning One Mem- ber each:—				Renfrew,	949	1,063	2,012
Aberdeen,	26,806	35,117	61,923	Rutherglen,	2,815	2,808	5,623
Dundee,	28,729	34,144	62,873	Port Glasgow,*	3,132	3,811	6,943
Greenock,*	17,318	18,327	35,645	Total,	18,247	20,120	38,367
Paisley,*	21,811	25,884	47,695	Kirkcaldy District—			
Perth,	9,293	10,874	20,167	Burntisland,	813	1,046	1,859
COMBINED BURGHS, & TOWNS or DIST- RICTS returning One Member:—				Dysart,	3,230	3,827	7,057
<i>Ayr District—</i>				Kinghorn,	655	887	1,542
Ayr, and Newton } upon Ayr,	7,106	8,613	15,749	Kirkcaldy,	4,481	5,297	9,778
Irvine,	3,105	4,207	7,313	Total,	9,179	11,057	20,236
Campbeltown,	2,897	3,885	6,782	<i>Leith District—</i>			
Inverary,	504	588	1,092	Leith,*	11,952	14,032	25,984
Oban,*	604	794	1,398	Portobello,*	1,403	2,185	3,588
Total,	14,217	18,117	32,334	Musselburgh,*	2,850	3,266	6,116
<i>Dumfries District—</i>				Total,	16,205	19,483	35,688
Annan,	1,519	1,802	3,321	<i>Montrose District—</i>			
Dumfries and Max- } welltown,	5,699	7,389	13,088	Aberbrothwick or } Arbroath,	6,764	7,804	14,568
Kirkcudbright,	1,061	1,527	2,588	Brechin,	2,672	3,231	5,903
Lochmaben,	416	515	931	Forfar,	3,645	4,386	7,981
Sanquhar,	795	905	1,700	Inverbervie or Ber- } vie,	421	440	864
Total,	9,490	12,133	21,623	Montrose,	6,316	7,926	14,252
<i>Elgin District—</i>				Total,	19,821	23,747	43,568
Banff and Maeduff, ..	2,346	2,963	5,309	<i>St. Andrew's District—</i>			
Cullen,	713	851	1,564	Anstruther, Easter, ..	446	562	1,008
Elgin,	2,184	2,880	5,064	Anstruther, Wester, ..	148	191	339
Inverury,	898	871	1,679	Crail,	517	704	1,221
Kintore,	220	245	465	Cupar,	2,326	2,811	5,137
Peterhead,*	2,470	3,289	5,759	Kilrenny,	791	928	1,719
Total,	8,741	11,099	19,840	Pittenweem,	575	731	1,309
<i>Falkirk District—</i>				St. Andrew's,	1,941	2,508	4,449
Aldrie,*	6,677	5,731	12,408	Total,	6,744	8,438	15,182
Falkirk,*	3,995	4,208	8,203	<i>Stirling District—</i>			
Hamilton,*	4,056	4,633	8,689	Culross,	227	360	587
Lanark,	2,131	2,356	4,467	Dunfermline,	6,719	6,577	13,296
Lindlithgow,	2,082	1,927	4,009	Inverkeithing,	840	987	1,827
Total,	18,941	18,835	37,776	Queensferry,	589	644	1,233
<i>Haddington District—</i>				Stirling,	4,989	5,712	10,701
Dunbar,	1,356	1,622	2,978	Total,	13,364	14,280	27,644
Haddington,	1,779	1,970	3,749	<i>Wick District—</i>			
Jedburgh,	1,518	1,759	3,277	Cromarty,*	812	1,124	1,936
Lauder,	578	570	1,148	Dingwall,	770	902	1,732
North Berwick,	486	551	1,037	Dornoch,	198	250	448
Total,	5,717	6,472	12,189	Kirkwall,	1,230	1,816	3,046
<i>Inverness District—</i>				Tain,	843	1,029	1,872
Forres,	1,287	1,886	3,373	Wick,	2,595	2,927	5,522
Fortrose,	411	544	955	Total,	6,448	8,108	14,556
Inverness,	4,989	6,579	11,568	<i>Wigtown District—</i>			
Nairn,	1,027	1,357	2,384	New Galloway,	212	218	430
Total,	7,714	10,366	18,080	Stranraer,	2,170	2,708	4,878
				Whithorn,	682	831	1,513
				Wigtown,	843	1,017	1,860
				Total,	3,907	4,774	8,681

* Burghs which have a Parliamentary Representation, but are not Royal Burghs.

INDEX OF PLACES.

☞ The letters B or G, C, I, L, M, R, at the end of names, signify *Bay* or *Gulf*, *Cape*, *Island*, *Lake*, *Mountain*, *River*. Names beginning with the prefix *New*, will be found under N; those with the prefix *Saint*, *San*, *St.*, under S; those with *Fort* or *Port*, under F or P. Spanish names beginning with X or J, may be looked for under either of these letters, the pronunciation of both being the same, and the use of them indifferent. Names beginning with C or K, if not found under the one of these letters, may be looked for under the other. Russian, Turkish, and other oriental names usually beginning with J, if not found under that letter, may be looked for under I or Y, the latter of which gives the correct pronunciation.

A					
AALBORG,	page 482	Adam's Peak	739	Air point	180
Aalen	409	Adamson Peak	998	Aire R.	182
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