CHAPTER XIV.

EAST INDIAN ARCHIPELAGO.

The East Indian Archipelago is the name usually given to a range of fine and large islands, lying east of Hindostan, and south of Further India and of China. Although they have few political ties with each other, and each island is even subdivided into separate states, the aspect of nature, the state of civilization, the peculiar character of the people, present such a similarity, that they may be Advantageously treated under one head.

SECT. I.—General Outline and Aspect.

The principal islands of this range are Sumatra, Java, Borneo, the Moluccas or Spice islands, and the Philippines; and it includes also, several smaller islands and groups. The archipelago, in general, has, on the east the Pacific, on the west the Indian Ocean; and seas and straits, connected with these, separate it on the north from Further India and China, on the south from the great islands of New Holland and New Guinea. Situated almost directly beneath the equator, it extends from east to west somewhat more than thirty degrees, or 2100 miles.

Mountains, in lofty ranges, and bearing often a volcanic character, traverse the interior of all the great islands. Mount Ophir, in Sumatra, according to the measurements of Captain Nairne, rises to the height of 13,942 feet. The peaks of this tropical region, however, seldom exhibit that dreary and desolate aspect usual at so great an elevation. On the contrary, they are crowned almost to their pinnacles with lofty forests, luxuriant shrubs, and aromatic plants, presenting the most varied and picturesque scenery.

Rivers cannot attain any great magnitude, in a region thus broken into islands, each of which has a high chain of mountains extending through its length, which leaves only a plain of moderate breadth between it and the sea. The streams are numerous, and highly beneficial for irrigation. They are perennial, produced by rains which, in countries so near the equator, fall constantly throughout the year; while those of Hindostan are dry during six months. Many of them form at their mouth commodious harbours, and minister to the purposes of trade; but, from the causes above stated, can be only of limited and local importance. Lakes, from the same structure, are comparatively few; though some, imperfectly known, exist in the interior of the mountain regions, particularly of Sumatra and Luconia.

References to the Map of the East Indian Archipelago.

Sect. II.—Natural Geography.

Subsect. 1.—Geology.

The geology of the Indian Archipelago is so very imperfectly known, that we cannot lay before our readers more than the following notices.

Sumatra. Four volcanoes, one of them called Gunong Dempo, rising about 12,000 feet above the level of the sea, are described as existing in this island. Granite and other primitive rocks are enumerated as products of Sumatra; and trap, limestone, and clays, probably of tertiary formation, form the lower parts of the country.

Java. Several ranges of volcanic mountains and hills, some of them 12,000 feet high, exist in this island. Extending from these are considerable tracts of low and flat country, composed of limestone, clay, marl, and salt, which may be of tertiary formation. In these tertiary districts there occur salars resembling those at the foot of the Apennines, and also numerous salt springs.

Banca. The principal mountains in this island are composed of granite, with its generally associated gneiss and mica slate. These are said to be immediately bounded by a formation of red ironstone; but Crawford, who makes this statement, gives no description of the formation. The low tracts are deeply covered with alluvium, which abounds in tinstone.

Borneo appears to abound in primitive and alluvial formations; the secondary and tertiary, and those of volcanic origin, have not as yet been accurately described. This great island is traversed by several chains of mountains, of which the principal one ranges north and south, not far from the east coast. These mountains abound in primitive rocks, which in many places afford numerous and large rock crystals. The lower districts contain various secondary formations, more or less deeply covered with alluvium. Volcanoes are mentioned as occurring in different quarters. The island is celebrated for its gold and diamonds.

Philippine Islands. These islands are represented as very mountainous, and abounding in volcanoes and sulphur.

Molucca Islands. The largest island of the group, Celebes, is said to be very rugged and mountainous. It contains several volcanoes in a state of activity; and primitive rocks, of various descriptions, more or less richly impregnated with gold, and diversified with cavities lined with rock crystals, occur in many quarters. The volcanic tracts afford immense quantities of sulphur. The smaller islands of this group are principally of volcanic formation.

The Indian Archipelago, as Crawford remarks, so remarkable for the rich variety of its vegetable and animal productions, is hardly less distinguished for its mineral wealth. The mineral products which particularly deserve notice, in a commercial point of view, are the following:—tin, gold, copper, iron, salt, sulphur, and the diamond.

1. Tin. Here, as in Europe, the only ore of this metal is the oxide of tin, or tinstone. In geographical distribution, tin is confined to the island of Banca, the Malay peninsula, and the islets on its coasts, with Juncceylon. It exists either in greater abundance, or is obtained with least labour and difficulty, in the island of Banca, which affords at present by far the greater quantity of the tin of commerce of the Archipelago. In Banca, the principal mountains are of granite; while those of inferior elevation, according to Crawford, are of red ironstone. In the low tracts between these the tin ore is found, and hitherto always in alluvial deposits, seldom farther than twenty-five feet from the surface. The strata in which it is found are always horizontal. The tin of Banca and the other Indian islands finds its way into almost every part of the world; but China and the continent of India are its principal markets.

2. Gold. Next to tin, gold is the most valuable of the mineral products of the Archipelago. It is universally distributed throughout the Archipelago, but abounds most in those countries which are composed of primitive and transition rocks. It is most abundant in those islands which form the western and northern barriers of the Archipelago, and exists but in small quantities, rarely worth mining, in the great volcanic range extending from Java to Timor-laut. Borneo affords by far the largest quantity. Next to it is Sumatra, and, in succession, the peninsula, Celebes, and Luçon. In the great island of New Guinea gold occurs, but in what quantity is not known. In the Indian islands gold occurs either in fixed rocks or in alluvial deposits: the fixed rocks, mentioned by Crawford, are granite, gneiss, mica slate, and clay slate. The gold is never absolutely pure; always containing silver, and frequently copper. The gold of Banjur-laut, for example, usually contains, in 100 parts, gold 90 parts, silver 4 parts, and copper 6 parts. The gold of Larak, in the same island, affords, in 100 parts, gold 80 parts, silver 6 parts, and copper 8 parts. The gold of Pontiana, in 100 parts, contains 83 parts of gold, 16 of silver, and about 1 of copper. A small part of the gold of commerce of the Indian islands is obtained by mining in the solid rocks; some from washing the sand and mud of brooks and rivers, but by far the greater portion by washing deposits of
gold in alluvial districts. The annual amount of gold thus collected throughout the Archipelago is estimated by Crawford at 658,176L. sterling.

3. Iron and Copper. Iron and copper are, besides tin and gold, the only metals found in the Indian Archipelago. Iron occurs but in small quantity. Copper ores are met with in Sumatra, Timor, and in the territory of Sambas in Borneo. Copper is found in its native state in Sumatra and Timor.

4. Diamond. Borneo is the only Indian island which affords the most precious of all known minerals; and there the diamond is confined to the south and the west coast, principally in the territories of the princes of Banjarmassin and Pontianak. The principal mines are at a place called Landak, from which the diamonds of Borneo, to distinguish them from those of Hindostan, are usually designated. It is the same country that is most remarkable for the production of gold, in which the diamond is found. The diamond is in great repute among all the natives of the Indian islands, and, indeed, is the only gem in much esteem, or much worn by them. One of the largest known diamonds is now in Borneo, in the possession of the prince of Matan, and was found in the mines of Landak about a century ago. It is still in its rough state, and weighs 367 carats. Its real value is 260,376l.

5. Sulphur. There is no volcanic mountain in Java that does not afford sulphur, but the best and most abundant supply is obtained from the great mountain of Banyuwangi, at the eastern extremity of the island. Here, and in similar situations in Java, and other volcanic islands of the Indian group, sulphur is obtained without difficulty, and in such a state of purity as to require no preparation for the market.

6. Salt. Salt springs occur in several of the islands, more especially in Java, where they are very abundant. Much of the salt of commerce is obtained from these spring waters by evaporation.

SUBJECT 2.—Botany.

Tropical Islands of Asia.—Under this head we include Ceylon, with the islands of the Malay archipelago; a country eminent from the earliest times, for the splendour of its vegetable productions, and more especially for their fragrance. But of all their wonderful productions, the most remarkable yet discovered is the Rafflesia Arnol’dii (fig. 701); a plant without stem, without leaves, with roots so minute that they are embedded in the slender stem of a species of vine, and as it were incorporated with that stem, yet bearing a flower of the most enormous dimensions. It is a native of Sumatra, and is one of the surprising novelties detected there by Sir Stamford Raffles, and his friend and medical attendant, Dr. Arnold. The first appearance of this extraordinary flower, upon the stem of the vine on which it grows parasitically, and where the seeds happen to alight, is that of a small tubercle, which almost resembles a swelling in the bark. This gradually enlarges, still preserving its rounded form, till the bud has attained its full size. It then considerably resembles a large cabbage. At length, the flower (the entire plant, indeed) expands, and presents a blossom of the most gigantic stature. Its diameter is three feet and a half, its weight fifteen pounds, and the hollow in the centre is of the capacity of fifteen pints, English measure. The thickness of the petals is not less than an inch and a half near the base: the colour a brick red, inclining to orange, wrinkled or embossed on the surface, and marked with deeper blotches of the same colour as the ground, and with white spots. The plant is diaphanous. The stamens form a sort of beaded circle round a central abortive pistil; which is itself a large fleshy exence, flat at the top, and beset with elongated projections, which Dr. Arnold declares resembled cow’s horns. This superb flower soon decays, and is endowed with a most powerful but disagreeable odour, which, like that of the Stapelia, attracts flies in great abundance. The plant has been admirably illustrated by the learned Brown, in the twelfth volume of the Linnean Transactions, with an explanatory figure from the pencil of M. Bauer. It is undoubtedly the largest known flower in the world.

Sarcely less interesting, if we consider the structure of its foliage, is the famous Nepenthes distillatoria (fig. 701.), or Pitcher plant, a native of a considerable portion of Southern India, especially the islands, and formerly supposed to be peculiar to Ceylon. Other species, and even more curious in the nature of the leaves, are found in Java; but we shall confine our remarks to the species above mentioned, which has now attained to great perfection in the stoves of the botanic gardens.
There is not a more interesting spectacle of the kind, perhaps, in Britain, than the fine plant of Nepenthes which exists in the stove of the Botanical Garden at Edinburgh. Planted in a tub, whose soil is kept constantly moist by a covering of living Sphagnum and other Mosses, its stem, 18 to 20 feet long, rises from the midst of these; it is branched, and climbs among the wires that traverse the rafters of the roof, supporting itself by means of its tendrils, bearing, especially towards the extremity, very many leaves which look more like the contrivance of art than a production of nature. The whole leaf, including the petiole or stalk, is two feet and more in length. The petiole itself is, below the middle, winged with a very broad margin, to that degree that it is commonly taken for the leaf itself; upwards, it forms a long, stout, filiform cirsis, or tendril, which is more or less spirally twisted, even when it does not catch hold of any surrounding object to support the parent stem. Its extremity hangs down, and is terminated by the true leaf, or leafy portion; but which, from its remarkable appearance, is called an appendage to the leaf. Instead of being flat, it is hollowed out, like an elongated pitcher; it is six to nine inches long, attenuated at the base, where it is curved or arched, and then it suddenly turns upward. It is oblongely striated, and on each side, at the front, marked with two prominent wings or membranes; it is ventricose upwards, slightly expanding at the mouth, which is oblique; in a young state completely and firmly covered by a lid or operculum, which is flat, and marked with two winged nerves, and fixed by the back to the upper margin of the mouth. After a time, this lid opens, still continuing attached by a point at the back; but which, though in the act of opening it supplies the place of a hinge, is not capable of any further movement: the mouth of the pitcher, which is heart-shaped, is now quite exposed to view, and exhibits a remarkably thickened margin, which is closely, transversely, and most beautifully plaited. The colour of the pitcher is pale green, often tinged and spotted with red, purple within, where it is glaucous, especially near the base.

As if the better to deserve the appellation of a pitcher, this curious leaf contains a watery fluid, which is secreted by the plant itself; for it is often most abundant while the lid is perfectly closed, and when the water could not be received by any external agency. Neither is this fluid of the nature of common water. In each of the unexpanded pitchers of the Edinburgh plant was about a drachm of limpid fluid. "This," says Dr. Graham, in his description of the plant, in the Edinburgh New Philosophical Journal, for 1827, "had a subacid taste, which increases after the rising of the lid, when the fluid slowly evaporated. My friend, Dr. Turner, perceived it to emit, while boiling, an odour like baked apples, from containing a trace of vegetable matter, and he found that it yielded minute crystals of superoxalate of potash, on being slowly evaporated to dryness. The pitcher whose contents Dr. Turner analysed was a large one; it had not opened, and the whole fluid weighed only sixty-six grains."

In the plants at the Glasgow Royal Botanic Garden, there is generally a very considerable quantity of this fluid, after the lid is expanded and the pitcher has attained its full development; and, whether in pursuit of that liquid or from any other cause we are not able to say, insects are attracted thither in great quantities, and ants in particular; so that the pitchers are often found quite black within, from the accumulation of the dead bodies of the latter; and the quantity thus destroyed is very great.

In Ceylon, in China, and the other parts of India, where this plant is a native, it is probable that the secretion is far more abundant than when cultivated in stoves; and, if we may credit the narration of travellers, the pitcher is generally filled with a clear limpid fluid, and the lid is then closed; the latter opens during the day, and the water is reduced by one-half; but this loss is repaired during the night, so that next morning the pitcher is replenished, and anew closed by the lid. This alternate closing and opening of the lid is at variance with what we have observed in our plants. Small aquatic shrimps, too, Rumphius tells us, inhabit the fluid.

In some parts of India, Rumphius and Flacourt assure us that the natives entertain some curious and superstitious notions respecting this plant. They believe that if they sever the pitchers and pour out the water, it will not fail to rain during the day. When they dread this state of the weather, they are very careful not to cut the pitchers. On the other hand, in periods of great drought, they hasten to the woods, sever the pitchers of the Nepenthes, and pour out the liquid, firmly persuaded that rain will then ensue.

The generic name Nepenthes is derived from two Greek words, signifying, without sorrow. Homer speaks of an Egyptian planet called Nepenthes, which was employed by Helen to dispel grief from her guests: in the same way, probably, Linnaeus, who applied the name in
the present instance, might suppose that the liquid contained in the pitcher was calculated to allay the thirst and consequent misery of the traveller. The word distillatoria, it will be immediately perceived, implies the secretion and concentration of the fluid in the pitcher. Thus we see how admirably are the names of plants calculated, in many cases, to characterise some property residing in the plant itself, or to impress some portion of its history on our minds!

We have a striking instance, in the plant cultivated at the Edinburgh Botanic Garden, of the importance of the stamens and pistil of plants. We have already observed that the Nepenthis is dioecious. The Edinburgh plant was a staminiferous one, and flowered annually; but, of course, bore no fruit. In the stove of Professor Dunbar’s garden was a pistilliferous one; which, standing by itself, was equally barren. The blossoms of the latter were dusted with the grains from the former, when the germs ripened into perfect fruit.

The appearance of the germinating plant is most curious. The minute seeds, produced by the process just mentioned, readily vegetated on being sown in the spring in pots of peat earth, covered with a plate of glass, and standing in pans of water. They began to sprout in April and May. The plumule rises before the cotyledons are expanded: when the latter takes place, the first little pitcher appears in the centre; then the radicle pushes through the arillus in the opposite direction from the plumule. In a rather more advanced stage, three pitchers are evolved, each with its closed lid, which is slightly muricated; and there are, upon the body of the pitcher, two prominent and ciliated wings. The cotyledons now begin to wither and to become deflected. Five pitchers are formed. These little pitchers, destined of the broad leaf-stalks, present a truly extraordinary appearance, rising a little above the surface of the ground, and of the most beautifully delicate texture.

If the islands now under consideration astonish us by the singularity of some of their vegetable products, the importance of others, in a commercial point of view, renders them equally interesting. A large group of them is especially termed the Spice Islands; a denomination which, though usually limited to part of the Malay Archipelago, may with equal justice be extended to Ceylon. Cinamomus, who has drawn a beautiful, though too highly coloured, picture of the vegetation of Ceylon, while comparing it with that of northern Europe, says of it,—“A delicious climate has afforded plants of such rarity and value to this island, that scarcely any other soil can vie with it in the abundance of its aromatic productions. While Pine forests occupy our cold and sterile regions, in Ceylon Cinnamon trees constitute whole groves; in such plenty, indeed, that the inhabitants are accustomed to employ the wood for household furniture, for fuel, and for cooking. Our gardens are planted with apples, pears, plums, cherries, and other similar trees; but in Ceylon, nothing save the lofty Palms are esteemed, among which the Cocoanuts chiefly afford the needful food, utensils, and every thing necessary to mankind. The Caryota there yields a wine, called sury. The Coryphas (fig. 702.) extend their broad, smooth, and plaited fronds, which serve for shade and shelter, here most requisite for protection from the sun’s rays, as well as from sudden showers, to the natives, whose only garment is a small piece of linen. Date Palms, and the superb Bananas, decorated with wide-spreading and glossy fronds, yield, in great profusion, meeres of the most delicious fruit; to say nothing of the more valuable productions with which the soil everywhere abounds, such as Mangoses, the Jack, Malay Apples, Psidia, Oranges and Citrons, Cashew nuts, Averrhoa, &c. Our fields are sown with common Barley and Rye; but those of the Cingalese receive nothing but Rice, which affords them flour and bread. Our marshes are covered with Callo; theirs with the pungent Amoma. Persicarias occupy our waste places; but with them grow different species of Pepper. In our meadows spring the Ranunculus, Plantain, Convallaria, and many other neglected plants; in theirs, numerous kinds of Hedyasarum, Galium, Hibiscus, Justicia, Cleome, Impatiens, Amomum, Myrtle, and Ricinus; besides numerous climbers, as Ipomera, Dioscorea, Tussila, Aristolochia, Ophioglossum, Phascolus, Monodendron, Bryonia, Vine, Cissus, Pothos, Loranthus, and Acrostichum. In the room of the Meadow-sweet and Mints, the meadows in Ceylon are covered with Basil, and the woods with Cinnamon. Everywhere occur the most precious aromatics. Ginger, Cardamom, Galanga, Costus, Acorus, Schoenanthus, Calamus aromaticus, and flowers of the most exquisite structure and colour and fragrance, such as Crinum, Pancratium, Poinciana, Gloriosa, as well as those plants which saturate the night air with their delicious odour, such as Polyanthus and Nyctanthes.” Most of these are equally natives of the islands of the Archipelago.
The Cinnamon, for which Ceylon is so famous, is the bark of a species of Laurel (Laurus Cinnamomum) (fig. 703.), remarkable, with some other species possessing similar properties, for its coriaceous leaf, marked with three strong nerves. It was originally found wild, only, and there in very small quantities, at the south-western district of the island; but when the Dutch first obtained a settlement in Ceylon, they found so many inconveniences to arise from this limited supply, that they began to cultivate the cinnamon in four or five very large gardens, under the auspices of the enterprising Governor Fakieck. The extent of these plantations may be inferred from the fact, that the quantity of spice annually obtained from them exceeded 400,000 lbs., and that from 25,000 to 25,000 persons were employed in the cinnamon department.

The rigour with which the Dutch enforced the regulations by which they kept the monopoly of cinnamon to themselves is truly revolting, and forms a blot on their national character. Death was the punishment awarded, and mercilessly inflicted, on any person who should willfully injure a cinnamon plant, or even sell or give away a single stick of it, or extract the oil from the foliage, or peel off any of the bark. In order to keep up the high price of the spices, the Dutch government used to have them destroyed, when the stock had accumulated, sometimes by throwing them into the sea, and sometimes by burning them. On one occasion, in the year 1760, a pile of these aromatic woods was consumed near the stadthuus, at Amsterdam, of which the price was estimated at 8,000,000 livres, and a similar wanton destruction took place on the following day. The air was perfumed with this incense, and the essential oils were distilled, and flowed in a spicy stream down the street, to the regret of the spectators, who were not permitted to appropriate the smallest portion of the valuable substance.

The cinnamon tree grows, in a natural state, to twenty or thirty feet high, and sends out large spreading branches, clothed with thick foliage. The leaves are first quite pendent, of a delicate rose colour, and most tender texture; they soon, however, turn yellow, and then green. The flowers are borne in panicles, and are small and white; partaking, as well as the foliage, of the peculiar fragrance of the tree. The fruit yields an oil, which becomes waxy and solid, and of which a kind of candles is made, whose agreeable odour caused them to be appropriated, in the kingdom of Candy, to the use of the court.

When the cinnamon tree is three years old, it affords one shoot fit to yield bark: but eight years of growth are needful before it can be freely cut. At ten or twelve years old, the tree is strongest, and those plants which grow in dry and rocky spots produce the most pungent and aromatic bark. The shoots are cut when nearly an inch thick, and two or three feet long; they are immediately barked, and the epidermis scraped off, during which process a delightful fragrance is diffused around. The bark is dried in the sun, when it curls up, and acquires a darker tint, and, the smaller portions being rolled within the larger ones, the whole is packed, and considered fit for exportation. Two harvests are sometimes obtained annually from the same trees. Cassia, or Laurus Cassia, is in its botanical characters scarcely different from the true cinnamon. In quality it is much inferior, though often surreptitiously sold for it. It is commonly known under the name of Bastard Cinnamon.

Camphor is equally the produce of a species of Laurel (Laurus Camphora) (fig. 704.); but its leaves do not exhibit the three strong parallel nerves of the L. Cinnamomum and L. Cassia. The whole tree has a strong odour of camphor, and this substance is obtained by the distillation of the roots and smaller branches. They are cut into chips, and distilled within an iron pot, in which they are suspended above boiling water; the steam of which, penetrating the twigs, causes the camphor to fly off, and it becomes concreted on straws which are placed in the head of the still. Camphor is much employed in medicine as a stimulant and cordial.

The Sunatran Camphor is found concreted in the clefts of the bark of Dryobalanops Camphora. This is said to be more expensive and fragrant than the Japanese kind, and does not so soon evaporate on exposure to the air. It is sent, therefore, to China and Japan, where it is more highly valued than the native produce of these countries: this last, however, and not the Sunatran, is the camphor usually imported into this country.

The Clove (Caryophyllus aromaticus) (fig. 705.) is one of the most precious commodities of the East, and one of the most valuable in commerce. Almost every part of the plant is covered with minute dots or glands, which contain the essential oil that gives the aromatic odour to it. These abound, particularly, in the substance of the germen, near the epidermis.
The clove was introduced to the Kew Gardens, in 1797, by Sir Joseph Banks. Its native country is the Moluccas; but, from its value as a spice, its culture has extended to the East and West Indies; and we must endeavour to lay before our readers some details respecting a plant of such importance, that it was once the staple commodity of some of the East India Islands, particularly Amboyna.

The clove of merchandise is the unexpanded flower; the corolla forming a ball or sphere on the top, between the teeth of the calyx: thus, with the narrow base or germen tapering downwards, giving the appearance of a nail; a similarity, indeed, much more striking in the dry than in the fresh state of the bud. Hence the Dutch call it nagel; the Spaniards, clavo; the Italians, chiodo; and the French, clove; from which the English clove is evidently derived. The uses of cloves are well known, as giving flavour to dishes and wines; and as stimulant, tonic, and exhilarating in medicine. These properties, with the acrid and burning taste, depend on the essential oil, which is obtained from them by distillation.

The cloves are gathered by the hand, or beaten with reeds, so as to fall upon clothes placed under the tree, and dried by fire; or, what is better, in the sun. The fully formed berries, which are about an inch long, pear-shaped, and of a beautiful violet colour, are preserved in sugar, and eaten after dinner, to promote digestion.

The true Nutmeg-tree (Myristica officinalis) (fig. 706.) is, as well as the Clove, a native of the Molucca or Spice Islands, and principally confined to that group called the Islands of Banda, where it bears both blossom and fruit at all seasons of the year. In their native country, the trees are almost always loaded with blossoms and fruit. The gathering of the latter takes place at three periods of the year: in July and August, when the nuts are most abundant; but the Mace is thinner than on the smaller fruits, which are gathered during November, the second time of collecting: the third harvest takes place in March, or early in April, when both the Nutmegs and Mace are in greatest perfection, their number not being so great, and the season being dry. The outer pulpy coat is removed, and afterwards the mace, which, when fresh, is of a beautiful crimson colour, and covers the whole nut. The nuts are then placed over a slow fire, when the dark shell which, immediately beneath the mace, coats the seed, becomes brittle; and the seeds, or nutmegs of commerce, drop out: these are then soaked in sea water, and impregnated with lime, a process which answers the double purpose of securing the fruit from the attacks of insects, and of destroying the vegetating property. It, further, prevents the volatilisation of the aroma. The Mace is simply dried in the sun, and then sprinkled with salt water, after which it is fit for exportation. The uses both of nutmegs and mace are well known, whether in a medicinal or economical point of view. The whole fruit, preserved in sugar, is brought to table with the dessert, but not till after the acrid principle has been, in a great measure, removed, by repeated washings. An essential oil is obtained from both these spices, by distillation, and a less volatile one, by expression.
Pepper, the seeds of Piper nigrum (fig. 707.), is another spice, which is extensively cultivated in the islands in question, as well as on the coast of Malabar, and forms an important article of trade. It was known to the Greeks in the time of Theophrastus and Dioscorides, who, as well as the Romans, distinguished between the white and black pepper. And whilst the use of Betel Pepper, to which we shall next allude, is confined almost wholly to the Eastern nations, the common pepper is an article of general use throughout the civilised world. Still, it is in Asia, where the stomach is weakened by excessive perspirations, produced by the heat of the climate, by a humid atmosphere, and a too general addiction to vegetable diet, that it is employed as a powerful stimulant. Thus, in a medical point of view, it has been found to act as an excellent tonic, calculated to create appetite and promote digestion. The Pepper plant, or Pepper vine, as it is commonly called, is a weak climber, which attaches itself by small fibres to other bodies, or to the ground, like ivy; it bears large heart-shaped, veiny leaves, and long slender catkins of flowers, succeeded by the berries, which we term peppercorns. These, when covered with their natural husk or coat, constitute black pepper. White pepper is the same fruit, deprived of its outer covering, which is accomplished by soaking the grains in water, when the coat swells and bursts. It is afterwards dried in the sun, and, by friction and winnowing, cleared of the husk. It is then of a paler colour; but, as the shell or bark contains a powerful principle, it is evident that white pepper loses much of its stimulating property, and is inferior to the black. Mr. Marsden informs us, that as soon as any of the corns on a bunch change from green to red, it is considered fit for gathering; for, if pulled ripe, many of the seeds would drop off. It is collected and spread to dry in the sun; nor are the vicissitudes of weather that may occur during its exposure thought to injure it. In this situation it becomes black and shrivelled, as we see it in Europe, and is hand-rubbed, to separate the grains from the stalk. That which is pulled at the most proper stage of maturity will shrivel least; if plucked too soon, it falls into dust. Thus, weight is the great test of goodness in pepper, and machines are constructed for the purpose of separating the light kind from the sound. Two crops are generally produced in one year; the culture is attended with some trouble, as it is necessary to keep the pepper gardens scrupulously free from weeds, and to give them sufficient irrigation. In the small island of Penang, the crop of pepper, in 1802, was estimated at about 211,000 dollars. Sumatra also yields this spice; but the quantity is inconsiderable when compared with the produce of the coast of Malabar, whence no less than ten full cargoes, amounting to 8,000,000 or 9,000,000 lbs., might be annually exported. But half this quantity is carried over the mountains to the coast of Coromandel, to the north, to the Deccan, and farther on, to different parts of Hindustan. This pepper is esteemed the best in all Asia, and is most sought after by foreign nations.

Another kind of pepper in general cultivation and repute throughout India, is the Piper Betle, or Betel pepper (fig. 708.). Its use may be traced to a very remote date; for, in an ancient Sanscrit inscription on stone, published in the Asiatic Researches, this plant is reckoned among the greatest blessings of the country; "in its towns are numerous groves of mangou, plantations of luxuriant betel, and fields of rice; channels of water, and wells; opulent men and beautiful women; temples of gods and of the saints; and men blessed with vigour of body and every virtue."

The habit of this plant resembles black or common pepper; but the leaves and catkins are much larger, the former of an oblong shape, and more oblique, and the corns or seeds infinitely bigger. In the East Indies, and especially the Malay islands, the inhabitants have, almost from time immemorial, considered the Betel Pepper as a necessary of life; and this, not by itself, but with the use of lime and the Areca nut, together constituting a masticatory, employed by both sexes, and at all ages. Various travellers relate particulars of the use of this plant; but we shall confine ourselves to those of Marsden, in his History of Sumatra; the custom of chewing the Betel-leaf being, perhaps, more prevalent among the Malays than any other nation. "Whether," he says, "to blunt the edge of painful reflection, or owing to an aversion our natures have to total inaction, most nations have been addicted to the practice of enjoying, by mastication or otherwise, the flavour of substances possessing an inebriating quality. The South Americans chew the Coca and Mambece, and
the Eastern people, the Betel and Areca; or, as they are called in the Malay language, the Sirih and Pinang. This custom is universal among the Sumatrans, who carry the ingredients constantly about them, and serve them to their guests on all occasions; the prince in a gold stand, and the poor man in a brass box or nut bag. The betel-stands of the better ranks of people are usually of silver, embossed with rude figures. The Sultan of Moham-mad was presented with one by the East India Company with his arms on it; and he possesses another, besides, of gold filigree. The form of the stand is the frustum of an hexagonal pyramid reversed, about six or eight inches in diameter. It contains many smaller vessels, fitted to the angles, for holding the nut, leaf, and chunam, which latter is quicklime made from calcined shells; with places for the instruments employed in cutting the first, and spatulas for spreading the last. When the first salutation is over, which consists in bending the head, and the inferior's putting his joined hands between those of the superior, and then lifting them to his forehead, the betel is presented as a token of politeness, and an act of hospitality. To omit it on one hand, or to reject it on the other, would be an affront; as it would be likewise, in a man of subordinate rank, to address a great man, without the precaution of chewing it before he spoke. All the preparation consists in spreading on the Sirih, or Piper Betle leaf, a small quantity of the chunam, and folding it up with a slice of the Pinang nut. From the mastication of these proceeds a juice which tingles the saliva of a bright red, and which the leaf and nut, without the chunam, will not yield. This juice, being communicated to the mouth and lips, is esteemed ornamental; and an agreeable flavour is imparted to the breath. The juice is usually (after the first fermentation produced by the lime), though not always, swallowed by the chewers of betel. We might reasonably suppose that its active qualities would injure the coats of the stomach: but experience seems to disprove such a consequence. It is common to see the teeth of elderly persons stand loose in the gums, which is probably the effect of this custom; but I do not think it affects the soundness of the teeth themselves. Children begin to chew betel very young, and yet their teeth are always beautifully white, till pains are taken to injure them, by filing and staining them black. To persons who are not habituated to the composition, it causes a strong giddiness, astonishes and excoriates the mouth and face, and decides for a time the faculty of taste. During the Pausa, or fast of Ramadun, the Mahometans among them abstain from the use of betel whilst the sun continues above the horizon; but, excepting at this season, it is the constant luxury of both sexes from an early period of childhood: till, becoming toothless, they are reduced to the extremity of having the ingredients previously reduced to a paste for them, that without further effort the betel may dissolve in the mouth. Mixed with the betel, and generally in the chunam, the Sumatrans have a practice of conveying philtres, or love-charms. How far they prove effectual I cannot take upon me to say; but I suppose they are of the nature of our stimulating medicines. The custom of administering poison in this manner is not followed in later times; but that the idea is not so far eradicated as entirely to prevent suspicion, appears from this circumstance; that the guest, though taking a leaf from the betel-service of his entertainer, not unfrequently applies to it his own chunam, and never omits to pass the former between his thumb and fore-finger, in order to wipe off any extraneous matter. This distrustful procedure is so common as not to give offence.

Among those plants which are natives of the islands of the Indian seas are several belonging to an extensive family which has been ably and splendidly illustrated by the lamented historian of Leo X.; we mean the Scitamineous plants: and so peculiarly do they inhabit the countries just mentioned, that these are denominated by M. Schouw, par excellence, "the region of Scitamine." Among them are reckoned some species of Canna or Indian Shot, of Arrowroot (Maranta), of Phrynium, Hedychium, Roscoea, Alpinia, Ginger, Costus, Kumpferia or Galangal, Amomum, Turmeric (Curcumæa), Glöbba, Muntia, &c. True Ginger is afforded by the roots of Zinziber officinale; a plant so easy of cultivation in tropical countries, that imported into the New World it is extensively grown in the West Indies, and on the continent of South America. Edwards, in his History of the West Indies, assures us that, as early as 1547, its culture was so diffused in New Spain, that 22,053 cwt. were thence exported to Europe in one year. Kumpferia Galangal (fig. 709.), the officinal Galangal, and K. angustifolia are both employed as medicinal plants, and are stomachic and cephalic. Curcumæa Zerumbet or Zedoary is likewise a celebrated Indian plant belonging to this family. Rice (Oryza sativa), though cultivated in all warm climates throughout the world, is considered of Asiatic origin, and is nowhere more extensively raised or more valued, than throughout the islands of the East Indies.
Among the numerous fruits of these islands, we shall only now mention the Guava (*Psidium pyriferum*), the Mango (*Mangifera indica*) (*fig. 711*), the Mangoostan (*Garcinia Mangostana*) (*fig. 712*), the Durion (*Durio Zibethinus*) (*fig. 713*), and the Malay Apple (*Eugenia malaccensis*), which, highly as they are prized in their native country, the utmost skill of British Horticulture has never been able to bring to any thing like perfection in the stoves of England, where indeed it is exceedingly difficult to cultivate many of them at all.

**SUBJECT 3.—Zoology.**

The Zoology of the Indian Archipelago is so remarkable for the variety, splendour, and singularity of its forms, that it is difficult to say in which department it is most interesting. Flourishing beneath a tropical sun, and nourished by marine vapours in a soil naturally humid, vegetation here attains a luxuriance inconceivably magnificent. Animal life equally partakes in this exuberance, and exhibits, under every form, the most singular shapes, and the most brilliant combinations of colours. It is in these distant and little known islands that the great satyr-like Apes dwell in the solitude and the security of their native forests; while the surpassing beauty of the Birds of Paradise, and the numerous variety of superb-coloured Lories, are among the most striking features in their ornithology. As most of the large islands possess many animals hitherto undiscovered in others, we shall notice them under distinct heads.

**JAVA.** The Zoology of Java derives peculiar interest from having been investigated by two eminent naturalists, the late Sir Stamford Raffles, and Dr. Horsfield. Under the liberal auspices of the East India Company, the researches of the latter have been given to the public. We are thus enabled to put aside the vague and erroneous accounts of travellers, on which, unfortunately, we are too often obliged to depend; and can confidently
enumerate the chief peculiarities in the zoology of Java, one of the most important islands in India.

The great number of native quadrupeds belonging to this island will become apparent from the following list:

- *Salvin’s monkey*.
- *Nycticebus javanicus*.
- *Nycticebus trivirgatus*.
- *Sukuysana javanica*.
- *Vespertilio ferruginea*.
- *Nycticebus deliensis*.
- *Nycticebus javanicus*.
- *Cheiroptera tuberculata*.
- *Perupus chilis*.
- *Perupus mononous*.
- *Tupaia javanica*.
- *Tupaia ferruginea*.
- *Sailor’s bat*.
- *Galeus orientalis*.
- *Pteropus major*.
- *Phalanger mas*.
- *Vespa Rana*.
- *Vespa Rana*.
- *Marmous javanicus*.
- *Pteropus auritus*.
- *Pteropus salvator*.
- *Pteropus vampyrus*.
- *Pteropus poliocephalus*.
- *Pteropus hypomelas*.
- *Pteropus hypomelas*.
- *Pteropus salvator*.
- *Pteropus poliocephalus*.
- *Pteropus vampyrus*.
- *Pteropus hypomelas*.
- *Pteropus salvator*.
- *Pteropus hypomelas*.
- *Pteropus vampyrus*.
- *Pteropus hypomelas*.

The following quadrupeds, from their rarity or singularity, deserve a more detailed notice. The Javanese and ferruginous *Tupaia*, the Wild Cat of Java, the Long-armed Ape, and the Genet or Coffee Rat. The Two-coloured Squirrel (fig. 714) is a peculiar species confined to this island, where it lives only in the deepest forests: the colour above is brown, but the fur on the under parts is of a golden yellow: it is a great favourite with the natives, who keep it in confinement.

The Javanese *Tupaia* (*Tupaia javanica*), one of the many interesting discoveries of Dr. Horsfield, is an animal peculiar to this island, and constitutes a distinct species from either of those two found in the other Indian islands. It is a small animal, somewhat resembling a squirrel in the gracefulness and agility of its form, no less than in carrying its broad tail, like a plume, on the back. The fur is thick-set, close, and curled at the base with a soft down; that on the under parts is remarkably delicate and silky: the colour above is brown, variegated with gray, having a regular narrow streak extending from the neck, over the shoulder: the lower parts are dirty white. This appears to be a rare, or at least a very local animal; as Dr. Horsfield met with only two individuals in the extensive and almost inaccessible forests of Blambangan. (Zool. Res., No. 3.)

714

Two-coloured Squirrel.

715

Cheestnut Tupaia.

The chestnut or ferruginous Tupaia (*Tupaia Press* of the Malays) (fig. 715), is a singular little animal, possessing all the timidity and sprightliness of the squirrel. The length of the body is about six or eight inches; the tail, which is not quite so long, is like that of a squirrel, except in being rounder. The back and sides are rusty brown, the belly whitish. This is the only species of Tupaia of whose habits and manners we possess any positive information. Sir S. Raffles remarks (Lin. Trans., vol. xii, p. 257): "This lively playful animal I first observed tame in a gentleman's house at Penang, and afterwards found wild at Singapore, and in the woods of Bencoolen: it was suffered to go about at perfect liberty, ranged in freedom over the whole house, and never failed to present himself at the breakfast and dinner table, where he partook of fruit and milk."

The Javanese Wild Cat (*Felix javanicus C.*), is considerably larger than the Bengal Cat, measuring above two feet seven inches, of which eight inches and a half are occupied by the tail. In its shape it exhibits that elevation of the legs, comparative shortness of the tail, and number of grinders (which are only three), which separate these smaller beasts of prey from the more powerful of their congener; while its small ears, placed much more distant from the eyes, give it an appearance very dissimilar to the domestic cat. The general colour is light grayish brown, nearly white beneath; on the back are four dark brownish stripes, which, although broken, are continued the whole length of the animal; while the oblong spots on the sides are in like manner disposed, with some regularity, in four series: the limbs and tail are similarly marked. The *Felix javanicus* is met with in all the large forests of Java, concealing itself during the day in hollow trees, but roving about at night, committing depredations on the poultry-yards. Dr. Horsfield tells us, that the natives ascribe to it an uncommon sagacity; asserting that, in order to approach the fowls unsuspected, and to surprise them, it imitates their voice. Its natural fierceness is such as to render it perfectly untameable. Like the wild cat of Europe, it feeds chiefly on small birds and quadrupeds; but when pressed by hunger, it is said to devour even carrion. (Horsf.)
The Long-armed Black Ape (Simia syndactyla Horsf.) is upwards of three feet high, of a strong muscular form, and throughout of a jet black colour: it has no tail, but its long arms touch its feet: its peculiar character lies in the fingers being joined together at their base (fig. 716). These apes abound in the forests of Bencoolen, living in large companies, and making the woods echo with their loud and peculiar cry. In captivity they are remarkably tractable.

The Javanese Genett or Viverra (called by the natives Lauwak), appears to be a mere variety of the Viverra Musanga (Reff.) or the Musang of Mr. Marsden. The usual colour of this animal in Java is light grey, with three distinct stripes along the back, and two paler ones on the sides; the extremity of the tail alone being white. Another variety also occurs where the back is variegated with grey and black, the stripes very obscure, and the limbs and tail nearly black; the latter (as represented in Dr. Horsefield’s figure), being without the white tip. This animal, in size and colour, so nearly resembles the Genett, that it was long considered to be the same species. It is abundant near the villages adjoining the large forests; rambling, during the night, in the gardens and plantations in search of fruits of every description, preferring the more delicate and pulpy kinds, and causing much devastation among the pine-apples. Its fondness for coffee is so great, that it is called by many the Coffee Rat. In this respect it likewise shows a very delicate taste; for the little picker selects only the ripest and most perfect fruits, the seeds of which, as Dr. H., relates, being discharged unchanged, are eagerly collected by the natives, as the coffee is thus obtained without the tedious process of shelling! Its nest is constructed, like that of the squirrel, in hollow trees. If taken young, it soon becomes gentle and docile, and readily subsists on either animal or vegetable food; the latter is indeed its natural subsistence; but if pressed by hunger it is known to attack fowls and small birds. “The injurious effects,” observes Dr. H., “occasioned by the ravages of the Lauwak in the coffee plantations, are, however, fully counterbalanced by its propagating the plant in various parts of the forests, and particularly, on the declivities of the fertile hills. These spontaneous groves of a valuable fruit, in various parts of the western districts of Java, afford to the natives no inconsiderable harvest, while their accidental discovery surprises and delights the traveller, in the most sequestered parts of the island.” (Horsf. Reis., No. 1.)

The appearance of the Bats is striking, both from their size, and their strage conformation. The Cheiropterus torquatus, or Tippet Bat (fig. 717), measures, in extent of wing, two feet, having a head not much that of a dog, with a tuft of hair on its shoulders. The head of another species, the Pipirupus rostratus, or Long-mouted Bat (fig. 718), resembles that of a greyhound. The animal itself lives in large societies, and feeds entirely upon fruits; hence causing the greatest damage to plantations.

The Ornithology appears more interesting than beautiful, as comparatively few species of Parrots or other richly coloured birds of India are contained in the descriptive catalogue of Dr. Horsefield: little is known of their natural economy, and technical descriptions of colours will not interest the general reader. A glance at some of the most remarkable will, therefore, be sufficient. Near the mountain streams of the interior is seen the rare and delicate Enicurus speciosus, or Crested Wagtail (fig. 719), running on the ground, like the European Wagtail. The deep forests are the favourite resort of two peculiar species of Wild Cock (Gallus Bankiva and jacovinicus), and likewise afford a beautiful Peacock, unknown to other parts of India. Dr. Horsefield enumerates ten distinct Pigeons, and eight Woodpeckers, different from those of the continent. The colours of the rare Calyptomena viridis, or the Green Fruit-eater (fig. 720), so exactly harmonise with those of the trees which it frequents, as to render the bird undistinguishable by a near bystander. The Flycatchers are not numerous; and the Greathedilled Toddy (Eurylamus Horsfieldi) (fig. 721) is a rare inhabitant. The Javanese Crosted Swallow (Macropteryx longipennis) is one of the
most elegant of its tribe, and the Pogonus javanicus, or Great Javanese Gotsucker, is particularly rare, even in its native island.

Upon the whole, the ornithology of Java may be considered as very rich, since Dr. Horsefield, as the result of his individual researches, furnishes us with a list of 204 native species, and many others have been since discovered by the French naturalists.

The Insects are numerous and splendid, but a long list of names may be dispensed with. Little attention has yet been paid to the marine productions, so that a vast and interesting field for discovery still lies open to the Oriental naturalist.

SUMATRA.—The Zoology of this luxuriant island has been partially but ably illustrated by the late Sir Stamford Raffles, who to the wisdom of a statesman united the learning of science, and a thirst for knowledge rarely equalled. The government of India might well be proud of such a man, whose high attainments shone forth in every thing he planned or executed.

The quadrupeds yet described are among the most singular of those found in the Indian Archipelago; while the vast unexplored forests of the interior appear to contain others of imposing size, as yet but imperfectly known from the general accounts of the natives. Some idea may be formed of the zoological riches of Sumatra, by the following list of such quadrupeds as are ascertained natives:—

<table>
<thead>
<tr>
<th>Animal</th>
<th>Scientific Name</th>
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<tbody>
<tr>
<td>Tupai Tana</td>
<td>Sumatra Tapia</td>
</tr>
<tr>
<td>Malay Tiger</td>
<td>Malayus tigris</td>
</tr>
<tr>
<td>Blackbearded Monkey</td>
<td>Uropithecus adi</td>
</tr>
</tbody>
</table>
the squirrel, but the snout is narrowed, and proportionally lengthened, like that of a sorèx, or shrew-mouse. The fur is soft and delicate, of a dark-brown or blackish colour above, and reddish beneath; the back of the head is marked by a narrow transverse band of black, which forms an obscure crest. The great elongation of the snout places this species as the type of this highly singular genus. The natives affirm it is always found on or near the ground, but its scarcity prevented this account from being verified.

Two distinct species of Rhinoceros inhabit the interior. One of these, the R. sumatranus Raffles, has two horns. The other is well known to the natives, but never yet seen by Europeans; they call it Ténnu, and describe it as having but one horn, and being marked with a narrow whitish belt encircling the body.

The Malay Tapir (fig. 723), although a quadruped of nearly the first magnitude, is a recent discovery of the late Major Farquhar. It is nearly equal in size to the buffalo; and is particularly distinguished by its colour, the fore and hind parts being glossy black, while the body has a broad and well-defined belt of white, extending circularly round it, resembling a piece of white linen thrown upon the animal. Its disposition is so mild and gentle, that it will become at home and familiar as a dog.

Of the Domestic animals, Sir Stamford furnishes us with some interesting and authentic information, particularly on the Elephant, Horse, Ox, Dog, and Cat.

Regarding the Elephant, few attempts have been made to catch and domesticate the wild troops, which are extremely numerous in the forests; as at Aceh even this animal trained to the service of man. The Sumatran horses are small, strong, and hardy, those of Aceh are the most prized; but the Batta Horses, although larger and stronger, are not so handsome. There is a very fine and peculiar breed of cattle, of a short, compact, and well-made form, without a hump; they are almost without exception of a light fawn colour, relieved with white: they are kept in excellent condition, and are universally used in agriculture. This breed is quite distinct from the Banting of Java and the eastern islands. Reddish-white Buffaloes are common at Bengkulu.

The Dog of Sumatra is wild and untameable; numerous packs inhabit the interior forests, where they hunt in unison. The tail is brushed like that of a fox; the ears short and erect, and the whole conformation resembles that of the Dingo, or Australian dog.

Even the Cats partake of the peculiar interest attached to Sumatran zoology. There is one breed having a knobbed or twisted tail, and another with no tail at all!

On the Birds, our limits compel us to be concise. Vultures are rare on the west coast, but are occasionally seen on the Malay peninsula. Parrots, as in Java, are less numerous than in the more eastern islands, particularly the Moluccas; but six distinct kinds of Hornbill are mentioned by Sir Stamford. Among the Cuckoos is that called the Yellow-billed (C. xanthorhynchus) (fig. 724); the throat and upper plumage is of a rich glossy violet, the body being white, with black lines.

The Doves are of beautiful colours. The magnificent Argus Pheasant, the pride of the Malayan forests, in elegance of form and richness of attire, is, perhaps, unequalled in the feathered race. They are found generally in pairs, in the deep forests of Sumatra, and are said, by the natives, to dance and strut about each other, in the manner of peacocks: four other species of this splendid family inhabit the same situations, besides numerous Thrushes, Warblers, Flycatchers, Barbets, and other birds whose scientific names have not yet been ascertained. There are, of course, no true Humming birds in India.

Of Serpents, twenty species have been discovered; the most venomous being the well-known Cola de Cacelito, or Hooded Snake. Another, much resembling the Culeber mysterioso, has the terrifying power of suddenly elevating the scales of the neck, and thus producing a variation of colours which disappear when the animal is at rest. The gigantic Python, long considered the same as the Boa Constrictor of America, is occasionally met with of immense size. One sent to England measured eleven feet and a half long; but they are sometimes more than twenty inches in circumference. Crocodiles, as might be expected, are abundant, and often attain to a fearful size.

Borneo.—The Zoology of this little-known island presents a vast field for future discovery; nor do we believe any region on the face of the earth would furnish more novel, splendid, or extraordinary forms than the unexplored islands in the eastern range of the Indian Archipelago. Ignorance, therefore, compels us to be concise. The forests of Borneo are said to be the principal habitation of the famous Orang Outang (Simia satyrus), which is here reported to attain to the human size; while the Pongo Ape, supposed by former writers to be the same, is stated to be considerably larger, and much more powerful. The singular Nasalis larvatus, or Proboscis Monkey, (fig. 725), is distinguished from all others, by having a long and projecting nose, giving to the head of the animal the appearance of a ludicrous mask.
The Pongo Ape of Buffon has been proved to be an imaginary animal; but much light has recently been thrown on the nature of another, probably the true Pongo of Baron Wurmb, by an observing naturalist. Dr. Harewood has recently stated the existence in the Hull museum, of a pair of gigantic feet (or hind haunches), belonging to some extraordinary ape of this kind. These feet were presented, in 1821, to an individual by the native sultan of Pontianak, in Borneo. "in whose family they had remained, as a great curiosity, during 154 years." Notwithstanding considerable contraction in their circumference over the knuckles, Dr. Harewood found that the middle toes of those feet, when measured from the knuckle, were of the enormous length of seven inches and three quarters. The adult animal must, therefore, have been considerably larger than the largest Orang Otang, described by Dr. Abel, which yet measured seven feet and a half in height. In short, the further details of Dr. Harewood clearly prove that these feet belonged to some enormous ape, truly distinct from any which has yet been recorded; but which, in all probability, still exists in the impenetrable forests of Borneo.

Amboyna.—The Zoology of Amboyna, notwithstanding the old accounts of Valentin, is involved in much obscurity, and even fable. Although the vast botanical labours of the old writers in this island are not only comprehensible, but useful to modern naturalists, we can scarcely assign one quadraped to this immense island as an authenticated native; we once, indeed, received from thence many skulls of the Babiroussa Hog, a highly curious animal, but of which there is no complete specimen in Europe.

The Sus Babiroussa (fig. 726) has much of the manners of the pig: it is said to swim remarkably well, and even to pass, in the Indian Archipelago, from one island to another. The tusks, (fig. 727) are enormous, and appear more like curled horns, rising out of the jaws, than teeth.

The Conchology appears richer and more splendid than that of any part of India. Here is found the beautiful and rare Rostellaria, rectirostris, of which only two perfect specimens are known in British cabinets, one of which we ourselves received from this island. The Paper nautilus grows to an astonishing size. The variety of beautiful Cones, Cowries, Pectens, and other Oriental genera are almost innumerable; and we have been told that the pearl fisheries are not inconsiderable.

The Insects are splendid, and exhibit the most singular forms, and the most surpassing brilliancy of colours. The matchless Amphirhmenus Prinmassus Nie. (fig. 728), the glory of Oriental entomology, seems a peculiar native of this island; some of the Locusts (as L. amboinensis Don.) (fig. 729), are near five inches long, and of a lively citron green colour; while the Mantis siccfolia more resembles a leaf than an insect. Another species, the Giant Mantis (M. gigas), exceeds seven inches in length, exclusive of its antennae. Such are a few of the riches which lie for the most part hidden from scientific research.

Timor.—The Zoology of Timor presents us with several animals which have not yet been discovered in the neighbouring islands. The following list, supplied by the researches of the famous navigator and naturalist Peron, is therefore interesting:

<table>
<thead>
<tr>
<th>Amphirhmenus Prinmassus</th>
<th>Perusca astra. Gray Roussette Bat.</th>
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</table>

The Roussette Bats, commonly called Vampires, are principally from Timor, where they appear to inhabit either the trunks of trees, or the hollows of rocks; but the larger species retire to the deepest and most obscure caverns. The Timor Stag is but imperfectly known, the head only having been brought to Paris by the French navigators; judging from this, the animal must be rather smaller than the fallow deer.

Timor is proverbial for its innumerable shells and marine productions, which strew the
shores at low water, and present an endless variety of forms and colours. Nor are the land shells insignificant: a most elegant species of Bulimus, banded with buff and purple, is thought to be peculiar to this island.

New Guinea.—The Zoology of New Guinea and its neighbouring islands has long been the astonishment and delight of the naturalist; while its surpassing splendour must awaken corresponding feelings even among the ordinary observers of nature. Those regions may, indeed, be termed the Elysium, the earthly Paradise, the fairy-land of the ornithologist; for they have given to the ravished eye forms of such exquisite beauty, that the imagination cannot conceive things more lovely or more gorgeous. Here, in truth, are birds of gold, and of every coloured gem; for in these "spicy islands of the East" are found the whole family of Paradise Birds, literally so called; to describe which both the pen and the pencil become insufficient. Strange, that the most beauteous of nature's works should be assigned to countries whose natives are the most savage and ferocious of the human race!

The native quadrupeds, in such a vast and uncleared island, must be numerous; but so imperfectly are they known, that we can scarcely extend the following memoir list:

<table>
<thead>
<tr>
<th>Phalanger papuensis</th>
<th>Papuan Phalanger</th>
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<tr>
<td>Phalanger chrysceps</td>
<td>Yellow-tailed Phalanger</td>
</tr>
<tr>
<td>Phalanger obscurus</td>
<td>Bear-like Phalanger</td>
</tr>
<tr>
<td>Sivipous</td>
<td>New Guinea Pig</td>
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</table>

The four latter quadrupeds have just been figured in the splendid atlas of zoological subjects discovered during the short stay of the French expedition at this island, by M.M. Garrot and Lesson. The completion of this valuable work, now in course of publication, will put us in possession of those details which we are now obliged to omit.

Many new and highly interesting birds were for the first time discovered by these zealous naturalists; among these may be mentioned, as the most remarkable, the following:

Barita Kerandrini Lesson, of the size of a crow, with the contorted windpipe of a gallinaceous bird: it has a small horn-like crest of pointed feathers over each eye, and its whole plumage is black, with green and blue glossy reflections of metallic brightness. The Whiskered Swift (Macropteryx mystacetus Swainson) is nearly the largest of its tribe, being almost double the length of the European swallow: the wings are excessively long. The beautiful Tiger Bittern of New Guinea (Ardea heliosele Lesson) is banded all over with brown, upon a very pale ground; and is the most lovely species of its tribe. To these new acquisitions may be added Megapodius Duperreyi, Eurylaunus Blainvillii, Psittacus Desamoroti, Mimo Dumontii, Corvus semex, Talegallus Cuvieri, and several small but most superb Flycatchers and Honeysuckers.

The true Paradise Birds (Paradisaeidae Swainson) deserve a more particular notice. To this magnificent family the following species, described by authors, appear strictly to belong; several others have been named, but they are now referred to distinct families.

| Paradisae minor | Small Paradise Bird |
| Paradisaea vagans | Northern Paradise Bird |
| Paradisaea major | Black Paradise Bird |

The King Bird of Paradise (fig. 730) is the smallest, not exceeding the size of a starling: it is a much rarer species than the Great Paradise Bird, but, like all those that are supposed to breed in New Guinea, it migrates thence into the small island of Aru, or Aru, during the dry monsoons. The upper part of its plumage is a most intense and beautiful red or purplish chestnut: on the breast is a broad gold green zone, and immediately on each side is a bunch of lengthened feathers tipped with the same brilliant colour; there are two long wire-like feathers in the tail, curling round at the ends, where they are emerald green.

![King Bird of Paradise](image)

The Six-shafted Paradise Bird (fig. 731) is still more extraordinary: the general colour is velvet-black, but the breast is of the most splendid gold green, changing in different directions of light into every colour of the rainbow: on each side of the head are three long feathers with naked shafts, but tipped with a rich metallic lustre of deep violet purple: the side-feathers of the body are excessively lengthened.

Ceylon.—The Zoology presents some few characters different from those belonging to the continent, and which deserve notice.
The following quadrupeds seem peculiar to this island:

Chinese Monkey. 
Ve spitiuwa. 
Painted Rat. 
Monkeys Menius. 
Ceylon Musk. 
Ceylon Squirrel. 
Ceylon Stag.

The slender Loris (fig. 732.), as its name implies, is remarkable for the delicacy of its body and limbs; and is stated to be possessed of great agility and liveliness. The Lion-tailed Monkey is so called from the tail being tufted at its extremity; and there is a white ruff of long hairs on each side of the forehead. It is a rare animal, and has been said to be excessively malicious. The Memina, or Ceylon Musk Deer, has never been found beyond the jungles of this island: it is a pretty animal, about seventeen inches long, grayish-olive above, and white beneath, with the tail very short. The Ceylon Stag is a remarkable and little known species, of which no specimen has yet reached Europe. Major Smith describes it, from the drawings and notes of that excellent artist the late Mr. Danieli, as the largest species on the island, surpassing the European stag in size. It is called by the natives Gona; they describe it as very bold and fierce, and as living only in the deepest forests.

Among the Birds we may notice an extraordinary species of wild cock, called the Tailless Cock (Gallus candiatus Tem.) (fig. 733.), as being destitute of even the rudiments of that member; the comb on the head is not toothed. It seems confined to the deep forests of Ceylon, and to be very wild. There are besides many small birds of elegant plumage, as the Phanimornis maculatrices Nee., Muscypita paradisea, &c.

The pearl fishery of Ceylon has long been famous: The shell furnishing this precious gem is the Margarita sinensis of Dr. Lench (fig. 734.). The fishery lasts from February to April. The divers go down by fives, and usually remain under water two minutes; but some have been known to continue four or even five. The shells are all placed in pits, where the fish are left to die and rot before the pearls are searched for; these, as is well known, are morbid concretions formed in the shell by the animal when diseased. The divers are hired, and are either paid in money, or by a portion of Pearl Oysters before they are opened: they generally prefer the latter. Besides the Pearl Oyster, Ceylon is particularly rich in other shells, particularly those called chucks, which are much worn by the Hindus as rings and ornaments.

Secr. III.—Historical Geography.

The condition of these islands, during the classic ages, appears enveloped in impenetrable obscurity. Ptolemy, who shows some knowledge even of China and the continent beyond India, describes indeed some islands scattered through this sea, and, in particular, Jabi-din, which is probably Java; but his delineation corresponds with the real position and magnitude neither of this nor the other islands. The deficiency is not supplied by any native records.

Considerable revolutions seem to have taken place, about the twelfth century, in the principal of these islands. Hindoo colonies had by this time introduced into Java the religion and literature of Bhood, mixed with that of Brahman, and several powerful empires, ruled by Hindoo sovereigns, were, during this and the following centuries, established in different parts of the island. Among these, Brahamnan, Jangrolo, and Pajuhan, appear to have been at periods extensive and powerful; but the dynasty of Mujnahit, both from tradition and surviving monuments, must have been extensive beyond all the others, stretching its sway even over part of Sumatra. About the twelfth century, also, the Malays, making an extensive migration from the plain of Menangkabau, in the interior of Sumatra, spread themselves over Malacca, Singapore, and Borneo, and rendered themselves, what they have ever since been, the most conspicuous people in the Archipelago.

The conversion to the Mahometan faith of Sumatra and Java, the two most important and improved of the India islands, made an important change in their political condition. It appears to have taken place, in the former island about the beginning of the fourteenth century; but, in Java, not till about 150 years later. This conversion was effected, not by priests or warriors, but by merchants from Arabia, who had been long attracted to these islands by the commerce in spices. Having settled there in considerable numbers, they at length began propagating their faith, first by persuasion, but, when a number of converts had once been made, they spread it, as usual with the votaries of this faith, by persecution.
and the sword. These mercantile apostles became chieftains and princes, and, after a series of bloody struggles, had established in both islands a number of petty kingdoms, in all of which they either ruled or held a considerable influence.

The arrival of the Portuguese by the Cape of Good Hope caused a memorable revolution in the whole Eastern world, and was peculiarly felt by the islands of this archipelago. In 1511, fourteen years after the voyage of Gama, that people conquered Malacca, and in the same year penetrated to Bantam and the Moluccas. They made repeated attempts upon the maritime states in Sumatra; but, these being then vigorously ruled, the invaders were unable to make any permanent impression. Their chief object was to obtain full possession of the Spice Islands, on account of their rich products; but they were encountered by the Spaniards, who had established themselves in the Philippines. After some sharp contests, however, the latter people agreed to waive their claims, in consideration of a payment of 350,000 ducats. The oppressions of the Portuguese roused a general confederacy against them, which was, however, baffled by the heroism of Galvan; and that virtuous governor introduced a conciliatory system, though it was ill supported by his successors.

The Dutch, a new power, who in the course of the sixteenth century sprung up from beneath Spanish oppression, were, after the union of Spain and Portugal, placed in an attitude of regular hostility with both these countries. It was only, however, by timid and cautious steps that attempts were made to dispute Spanish supremacy in the Indian seas. But the maritime power of Holland continually increased, while that of her antagonists diminished, so that she at length first contended on equal terms, and then gained the superiority. Her ambition was peculiarly attracted by the Indian islands, and she successively drove her antagonists from all the positions which they had occupied. Soon she herself had to contend with a new rival, the English, who, under Lancaster, Middleton, and other bold navigators, made strong efforts to obtain settlements in these islands, and a share in the spice trade. A most violent series of rivalry, plunder, and piracy was for many years carried on between these two great maritime states, in the course of which the Dutch were impelled to that bloody transaction, the massacre of Ambon. A treaty was at length concluded, on the principle of mutual equality and compensation; but since that time, the attention of the English company has been almost wholly engrossed by their vast acquisitions on the continent of India, while the Dutch, continuing to devote themselves to their insular possessions, have acquired there a decided preponderance. This was, indeed, suspended during the last war; when England by her superior navy obtained possession of all the principal islands; but, at the peace, which rescued her ancient ally from the thraldom of Napoleon, she, with a generosity which has been considered excessive, restored all the captured settlements. By a convention, in 1825, she even exchanged her possessions in Sumatra for Malacca, which was valuable to her from its connecting together Singapore and Prince of Wales’s Island.

Sect. IV. — Political Geography.

The political constitution of these states is mostly simple, and even rude. There are some wandering tribes, in the infancy of society, who present scarcely any vestige of law or subordination. In general, however, the system of village republics, the affairs of which are conducted by elective and sometimes hereditary officers, prevails here, as throughout the continent of India. These little associations, however, are oppressively dominated over, sometimes by a feudal aristocracy, sometimes by princes almost completely despotic. The aristocratic system prevails chiefly among the states less advanced in civilisation; Celebes, Sadoho, and part of Sumatra. Here the chiefs, having reduced the body of the people to a state of almost complete vassalage, unite in a species of confederacy, electing a king or head, rather as a servant than a master, to carry on their general concerns. They have also elective councils, consisting in Bumi of seven, in Wajo of forty officers, who have not only the command of the public treasure, but the decision of the questions of peace or war. Among the Gaus Maasses, there is a very extraordinary officer, who has the power of removing the king, and calling upon the council to elect another. In Java, on the contrary, and others of the more advanced districts, the sway of the sovereign is entire and undisputed; and the subjects vie with each other in indications of the most abject submission. They approach him creeping on all-fours, and retire in the same humiliating attitude: to stand upright before him is considered an insult. The “royal feet,” or “the royal slave,” are the appellations by which they designate themselves when addressing him. He is loaded with the most extravagant flattery: his eyes are two gems; his face is the sun. Yet, even under these regular despots, the body of the people are less oppressed than where the feudal aristocracy prevails. Personal slavery is unknown in them, and even the village governments enjoy a greater share of independence. In all these states, however, there are two orders of nobles, out of which the higher and the lower classes of public officers are respectively chosen. Slavery is often produced by war and Mr. Crawford mentions 10,000 Bugis at one time held in bondage by the Maasses nation, and employed in public works, without distinction of rank. Debt is another source either of temporary or perpetual slavery; and the atrocious practice of kidnapping is by no means unfrequent.
The Dutch claim, in a certain sense, the sovereignty of all these islands except the Philippines. In fact, they hold the leading positions in a state of military occupation, and generally triumph in contests with the natives. Their sway is neither mild nor popular. Oppressive exactions, commercial monopolies, and sometimes bloody severities, have rendered their yoke odious, and given rise to violent insurrections. They appear also never to have made any effective efforts to improve and civilise the people; and have not followed up the attempts made by Britain for this purpose during her temporary sway. Under the late administration of Van Capellen, however, some improvements took place.

The Spaniards, whose colonial system has been generally considered the worst of any, have administered the Philippines in a manner decidedly better, and more salutary. They have established a mild control over the natives, who, when the power of their European masters was in danger, have even taken up arms in their defence. This improvement has been in a great measure effected through the missionaries, who, without any violent means, have converted and gained the attachment of the people. Still, little has been done to develop the vast natural capacities of these fine islands.

Sect. V.—Productive Industry.

As to soil and climate, the Indian islands rank with the most favoured regions on the globe. Situated almost immediately beneath the equator, and beat by the sun’s intensest rays, they must, had moisture been deficient, have been converted into arid and sandy deserts. But the vicinity of the sea, their varied surface, and the lofty mountains that traverse their interior, afford a copious supply of waters, which, combined with the heat, produce the utmost luxuriance of vegetation. They yield in abundance not only all the ordinary products of a tropical region, but also peculiar and exquisite spices and fruits, which cannot be transplanted with advantage into any other soil. The Archipelago, according to Mr. Crawford, may, as to climate and productions, be divided into five parts, of different character, yet these appear to us all reducible to two, modified by, and passing into, each other. These are, the eastern and western, bordering one on the Pacific, and the other on the Indian Ocean, and exposed to the respective monsoons which blow from these vast seas. The western quarter is more fruitful in the staple and useful productions of the soil; rice is raised in abundance, and forms the food of the great body of the people; noble forests of teak and other valuable timber cover the plains; but the finer spices are not raised in any perfection, and even its pepper is inferior to that of Malabar. The eastern islands, on the contrary, are less fitted for the production of rice or of any grain; the subsistence of the inhabitants is derived from the pith of the sago tree, a mode of support unknown to any other great nation; but they contain the native country of the clove and the nutmeg, the finest of aromatics. The Philippines, however, notwithstanding their crouserly position, agree rather with the opposite quarter, being fruitful, not in spices, but in rice, sugar, and tobacco.

Agricultural operations, even in the most improved of these islands, are extremely simple. A team is estimated by Mr. Crawford to cost 2l. 18s. 6d.; of which the plough is 2s, and the harrow 1s., the chief expense being the pair of buffaloes, which are worth 2l. 10s. Irrigation is the most costly process; it is not effected by those extensive tanks which diffuse fertility over Hindostan, but by damming up the streams as they descend from the mountains, and distributing them over the fields; and for this purpose the slopes of the hills are often formed into terraces. As the raising of rice by artificial irrigation does not depend upon the seasons, it is often seen, within the compass of a few acres, in every state of progress. "In one little field, or rather compartment, the husbandman is ploughing or harrowing; in a second, he is sowing; in a third, transplanting; in a fourth, the grain is beginning to flower; in a fifth, it is yellow; and in a sixth, the women, children, and old men are busy reaping." When ripe, the head is cut off with a species of sickle, with only a few inches of the straw; it is then dried, and carried to market in the ear. Maize, like oats and barley in Europe, is raised for the use of the lower ranks. The yam, though indigenous, is not much valued, the sweet potato being preferred. The grains of Europe and the common potato are produced only in small quantities. The cocoa-nut, the ground pistachio, the palma Christi, and sesameum are largely cultivated for the production of oil, a favourite food among the islanders.

The sago palm is a production peculiar to part of this region, growing chiefly under the most boisterous influence of the eastern monsoon. It is only thirty feet high, but so thick that a man with outstretched arms can with difficulty embrace it. It is reared only in marshes, so that a plantation forms a bog knee-deep. The sago is considered ripe in fifteen years, and is then cut into segments, and the pith extracted, which soon dries into a farinaceous powder, eaten either in the form of cakes, or of a species of pap. The produce is prodigious, 500 or 600 pounds being often drawn from a single tree, and one acre may, it is supposed, yield 8000 lbs. annually.

Spices, however, form the production of those islands most peculiar and most valued by foreigners. These, with the coffee tree recently introduced, occur in agriculture the same
place which the vine does in Europe, being generally cultivated in the hilly districts of each country. Pepper grows plentifully in its western districts; but Mr. Crawfurd considers it as introduced from the hills of Malabar, whose produce continues still superior. It is best raised, also, not on the rich plains of Java, but on the hilly districts of Sumatra and Borneo. The clove has, perhaps, the most limited geographical distribution of any plant, being confined originally to the five small Molucca islands, whence it has been transplanted to Amboyna, to which the Dutch have sought to confine it. The tree is of beautiful form, about the size of the cherry, bears fruit at a period between seven and ten years, and has an average duration of 75 years, though sometimes it has lasted for 100, or even 130. The fruit is first green, then a pale yellow, and lastly red, when it is ripe; and, being gathered, is dried upon hurdles, and then acquires the black colour which we see it bear. Some trees have been known remarkably productive, and one is even asserted to have borne 1100 lbs. in one year; but Mr. Crawfurd does not consider the annual average to exceed 5 lbs., and the produce of an acre 328 lbs. The nutmeg is much more widely distributed, being found of good flavour in all the Spice Islands, and even on the coast of New Guinea; but the Dutch have sought with tolerable success to extirpate it everywhere, unless in three of the Banda islands. The tree grows to the height of forty or fifty feet, somewhat resembles the clove, and has nearly the same duration. The fruit, also, is prepared in a manner somewhat similar, though requiring greater care, and with the additional operation of stripping off the mace, which merely requires to be dried in the sun. One tree produces, in mace and nutmegs together, nearly ten or twelve pounds; but, from the distance at which they must be planted, the average of an acre does not exceed 250 lbs.

Among other products of these islands may be mentioned the sugar-cane, which is indigenous, but is eaten by the natives merely as an esculent vegetable; the Chinese express the juice in the form of clarified sugar. Indigo is indigenous, of excellent quality, but ill prepared for use. Coffee has been introduced from Arabia, and cultivated to a considerable extent in Java. Cardamoms and gum benzoin, the Eastern frankincense, are articles of some importance.

Forests, in extraordinary luxuriance, cover a great extent of the Indian islands. The teak, so remarkable for its strength and durability, flourishes only in the rich soils of Java, and there not to the same extent as in Malabar and the Bornean empire. There are also a considerable number of ornamental woods, and of others, from which precious gums distil. Bamboos and rattans overspread the whole country wherever not rooted out by cultivation; they serve for building, for cordage, and other important purposes. The mangostan and the durian are generally considered the most delicate fruits produced in any quarter of the world; though, in the latter, the stranger must overcome the aversion inspired by its unpleasant scent.

The mineral wealth of the Archipelago is brilliant and valuable. The lead is taken by gold and diamonds, the most splendid productions of this kingdom of nature. Of the former, these islands, next to South America and Central Africa, contain the most extensive deposit on the globe. It is found chiefly in the south-western islands, whose rocks are mostly composed of primitive strata; and its central position is in Borneo and the adjacent parts of Sumatra. In the fertile volcanic range reaching from Java to Timor inclusive, the quantity is too small to be of any commercial importance. It is found in veins and mineral beds, in the sand of rivers and streamlets, and deposited in alluvial lands. From the first it is drawn only by the Malays and others of the more civilised tribes in the interior of Sumatra. They employ, however, very rude tools, and effect only slight excavations, clearing the mine of water by buckets and manual labour. Yet there are said by Mr. Marines to be no less than 1200 of these petty mines in the single district of Menangkabau. The sand of the rivers is searched only by the more savage tribes; but the drawing of gold from alluvial deposits, carried on almost entirely by Chinese settlers in the island of Borneo, is by much the most copious source from which the metal is supplied. The mines are situated chiefly at about two days of inland navigation from the western coast, towards the foot of the mountains. The Chinese colony, according to Mr. Crawfurd, consists of 36,000, of whom only 6000 are employed directly in the working of the mines, the rest in branches of industry subservient to it. There are said to be, in the principal district, thirteen large and fifty-seven small mines; of which, the former employ from 100 to 200, the latter from ten to fifty men. The excavations are longitudinal, and the golden earth drawn from them is put into a trough, and a stream of water passed over it, while it is agitated by a hoe, until the metallic grains separate. Mr. Crawfurd reckons the annual value of the gold of the Archipelago at 658,000l., which is more than a fourth of that of the mines of America in their most prosperous state, and four times that of all the European mines. Of this amount, 375,500l. is from Borneo, 131,000l. from Sumatra; the rest is the estimated produce of all the other parts of the Archipelago.

The diamond is found only in Borneo; being confined to that island, to Hindostan, and to Brazil. The Indian islanders prize highly this stone, and cut it with skill chiefly into the table form; but it is not valued by the Chinese, whose industry might otherwise have im-
proved the rude processes employed in extracting it by the Dayaks, or aboriginal savages. Almost the largest diamond in the world is in possession of one of the princes of Matan in Borneo. It weighs, in its present rough state, 367 carats; which, by the process of cutting, would be reduced to one half; consequently, it is not quite so large as that purchased by the Empress Catherine, which, when cut, weighed 193 carats; but it considerably exceeds the Pitt diamond, which was only 137 carats. Its value, according to the principles established by diamond-dealers, is 200,000£, though it might be very difficult at such a price to find a purchaser.

Of other metals, tin is a rare one of considerable use, and, though discovered in these islands only about the beginning of last century, has become an important and characteristic production. It exists in various parts of the Malay peninsula and of the islands between it and Java; but in none of these is it worked to any extent unless in the small island of Banca, near the eastern coast of Sumatra, which, in Mr. Crawford's conception, is almost entirely filled with this metal, in the form either of veins or of alluvial deposits. The latter, on account of the facility of working, is almost exclusively resorted to. The process is, first to cut down a portion of that vast primeval forest with which nearly the whole island is covered; then to remove the alluvial strata in order to reach the ore, which is then washed in a manner similar to gold, and smelted by machinery, simple though not unskilful. About the middle of the last century, the mines yielded 3970 tons, being nearly as much as those of Cornwall. Anarchy, mismanagement, and other causes, had reduced them, previous to the British conquest in 1813, to less than a sixth of the above amount; but in 1817 they rose to 2083 tons, about half the produce of Cornwall. Nothing can more strongly prove the effects of skill and machinery, since "Cornish tin is obtained with vast labour, by mining through obdurate granite, often to the prodigious depth of many hundred fathoms; Banca tin, by diggering through a few soft strata of sand and clay, and seldom to more than three or four fathoms." The produce has since continued nearly the same, being two-thirds of that of all the mines in the Malay peninsula. Like gold, tin is worked chiefly by the industry of Chinese settlers. Copper is found and worked in several of the islands, particularly Sumatra, though not to any very important extent. Iron is scarce, and occurs in considerable quantity only in the small and rocky island of Billiton. No silver mines of any value have yet been discovered. Sulphur is found abundant and pure on the volcanic mountains of Java; but the transportation to the coast is difficult. Salt, in favourable situations, is easily produced through the evaporation of sea water by the heat of the sun.

Fishery is pursued by the islanders with considerable activity; and its produce, used generally in a dried state, forms a considerable article of food and internal commerce. Important objects of exportation are afforded by certain gelatinous marine productions, of a singular character, which bear a high price in the markets of China. Such are sharks' fins, and above all the tripang, sea slug, or biche de mer, an ugly shapeless substance, of a dirty brown colour, with scarcely any appearance of life or motion. It is found chiefly on coral shores to the eastward of Celebes, including those of New Guinea and Australia. The chief market is at Macassar, whence upwards of 8000 cwt. are annually sent to China, where it brings from six to ninety Spanish dollars per cwt. The Chinese, who imagine it possessed of some peculiar nutritive and stimulating qualities, divide it into no less than thirty different species, the various qualities of which are understood only by themselves. Here, too, for the want of a more appropriate place, we may notice that kind of edible birds' nests which forms a similar fantastic luxury. These nests are the produce of a peculiar species of swallow (Hirundo esculenta), which, by some process not fully understood, constructs its nest, not of the usual materials of hair, straw, and feathers, but of a substance resembling a fibrous ill-concocted isinglass. They are found in the deep damp caves of solitary rocks, at a distance from any human habitation, and chiefly, though not always, on the sea-shore. The adventures of the old men, by ladders of bamboo or rattan, descends the face of perpendicular cliffs, till he reaches the mouth of the cavern, and must frequently enter it by torchlight over slippery fragments of rock, where a false step would be instantly fatal. According to the nice distinctions made by the Chinese, the value of these nests varies from 21. to nearly 77. per lb.; at which last price they are equal to about double their weight in silver.

Commerce, among the nations of this archipelago, has always been carried on with considerable activity. Their country yielded valuable materials, and the insular positions and great variety of seas and coasts afforded ample opportunities. At the time of the first discovery by Europeans, the three most civilized tribes, the Javanese, the Malays, and Bugis, carried on a very active traffic. That of the first two has been in a great measure crushed by European dominion and rivalry. The Bugis, however, who have remained in a great degree independent, are still active traders throughout all those seas. The Chinese, again, under the protection, as Mr. Crawford conceives, of the regular order established by the European governments, have formed extensive colonies, and carry on a constant intercourse by means of their huge junks, some of 600 tons burden, but so unwieldy that they can only make one annual voyage to Batavia. They furnish to the islanders tea, cotton stuffs, and porcelain, all somewhat coarse; receiving in return tripang, birds' nests, sharks' fins, tortoise-
shell, spices, and various minor articles. The tonnage employed by the Chinese and native states is together estimated at 30,000. The trade with Europe is carried on chiefly through the Dutch capital of Batavia, and the British settlement of Singapore. The exports to Europe consist mostly of spices, pepper, cloves, nutmeg, mace, with camphor, rattans, tortoise-shell, &c. The imports are cotton manufactures, particularly chintizes of moderate fineness, and of red, green, and other bright colours, with running-flowered patterns; also white cottons, cambrics, imitation bundana handkerchiefs, and velvets. Notwithstanding the tropical situation of these islands, the mountains which diversify them, and the influence of the sea-breezes, cause a considerable demand for woollens, which should be the light cheap cloths of Yorkshire, with gaudy patterns. Glass-ware, mirrors, lustres, and common earthenware, at low prices, find a good market.

Interior commerce is carried on with considerable activity along the rivers and creeks, which, though not generally of long course, are extremely numerous, descending from the inland mountain barriers. The roads are mere footpaths, unfit for a wagon of any description, and the commodities are conveyed on the backs sometimes of animals, but more frequently of men. On one much frequented road, in Java, no less than 5000 potter's are said to be constantly employed.

Sect. VI.—Civil and Social State.

The population of none of these islands has been ascertained by any species of census, except Java and the Philippines. Java has been found to contain about 6,000,000, and the Philippines about 2,500,000 people. In the rest of the Archipelago, a judgment can only be formed, by considering their extent, in combination with the apparent density with which they are occupied. An estimate has been communicated to us by Mr. Crawford, the historian of the Archipelago; and though it differs somewhat from those usually formed, yet the extensive opportunities of observation enjoyed, and ably employed, by that gentleman, lead us to believe that it will make a nearer approach to the truth than any hitherto published. He supposes Sumatra to contain 2,500,000; Borneo, 500,000; Celebes and its appendages, 1,000,000; Bali, Lombok, Sooloa, &c., 500,000; the Spice Islands, Timor, &c., nearly 500,000. The entire amount will thus be 13,500,000.

The people of the Indian archipelago are divided into two races, distinct in origin, language, aspect, and character, and irreconcilably hostile to each other: the brown and the black races. They bear the same analogy that the white and the negro bear in the western regions; the former, superior in intelligence and power, driving the other before him, oppressing and reducing him to bondage. Thus, in all the great islands the brown race has now established a decided and undisputed superiority.

The black race, called often the Papuan or Oriental Negroes, appear to be a dwarf variety of the negro of Africa. They are of low stature and feeble frame. Mr. Crawford never saw one who exceeded five feet. The colour is sooty rather than black, the woolly hair grows in small tufts, with a spiral twist. The forehead is higher, the nose more projecting, the upper lip longer and more prominent. The under lip is protruded, and forms indeed the lower part of the face, which has scarcely the vestige of a chin. This degraded class of human beings is generally diffused through New Guinea, New Holland, and other large islands of the Pacific. Their habits have been very little observed, Europeans having only had occasional individuals presented to them as objects of curiosity. Little is recorded except the ferocity with which they wage their ceaseless war with the brown races, who have driven them from all the finer parts of this region; but, if we may believe Mr. Hunt, the wrongs by which this hostility has been provoked are of the most aggravated description.

The brown tribes differ essentially in their appearance from any others in southern Asia. They are short, squat, and robust, being reckoned on an average four inches lower than the European standard. There are considerable varieties of colour, which Mr. Crawford thinks cannot be accounted for by the climate; though, perhaps, he does not sufficiently allow for the change produced by elevated sites. The tint of virgin gold is considered the standard of beauty, which the poets ascribe to the damsel whose praises they celebrate. These islanders are rather an ugly race; their frame is deficient in symmetry, their lower limbs large and heavy. The face is round; the mouth wide, but with fine teeth; the cheek-bones high, the nose short and small; the eyes are small, and always black. The hair is long, lank, harsh, always black, and, except on the head, extremely deficient; so that the Mahometan priests vainly attempt to attain any portion of that venerable aspect which an ample beard is supposed to confer.

This part of the population, by far the most numerous and important, appears the most uncivilised of all the great nations who inhabit the south of Asia. Some seem justly charged with cannibalism, the most dreadful atrocity of which human nature is capable. Yet this original rudeness is mingled with features characteristic of the most highly civilised people in Asia, the Arabs, Hindoos, and Chinese, who entered for purposes either of commerce or colonisation. The Javanese and Malays, the principal of these tribes, are destitute of the polished and courteous address which distinguishes the Hindoo and the commercial Arab.
When they wish, as they often do, to be obsequious courtiers, they act their part with a bad grace. In return, they are comparatively frank and honest; and much greater reliance can be placed on their word. They show also sympathy in the distresses of their fellow-creatures, and will exert themselves to relieve them, on occasions when the Hindoo manifests a callous indifference. Strong attachment is often displayed to their family, their kindred, and their chief. Though generally subject to a power more or less despotic, they retain strong and even lofty feelings of personal independence. Each man goes armed with a kris or dagger, which he regards as the instrument both of defending himself and avenging his wrongs. The right of private revenge is claimed by every individual for injuries received either by himself, his family, or tribe. When circumstances deprive him of any hope of avenging himself with ease or safety, he has recourse to that dreadful outrage, peculiar to these islanders, termed running amok, or a muck. The individual under this impulse draws his dagger, and runs through the house, or into the street, stabbing without distinction every one he meets, till he himself is killed or taken. This movement is always perfectly sudden, indicated by no previous looks or gestures, and from motives which it is often difficult to discover. The police officers, in contemplation of these violences, are provided with certain forked instruments, with which they arrest and secure the offender. A predatory disposition, exercised especially upon strangers, is shared by these islanders with all the uncivilised tribes of Asia; but while the Arabs and Tartars carry on their depredations by land, the Malays, inhabiting the shores of straits and narrow seas, through which rich fleets are perpetually passing, have become notorious for piratical exploits, which are practised with peculiar activity on the coast of Borneo, and in the islands of the Sooloo Archipelago.

The religious belief and observances of the East Indian islanders, at least of the most civilised portion, have been almost exclusively derived from the great nations in the south of Asia. The first great and effective colony appears to have come from Telengna in southern India; and the creed which they introduced, though now nearly obliterated, is still attested by the remains of splendid temples and by numberless images scattered throughout the island of Java. From them we discover that here, as in all the countries around India, the prevailing worship has been that of Boodh. His images, of which the principal one in the temple of Boru Budor is shown in the annexed cut (fig. 735.), are much the most numerous. Those of Siva and the deities connected with him are by no means unfrequent; but few or no representations have been found of Brahma or Viṣṇu. This system, once so widely diffused, scarcely survives, unless upon the small island of Bali, which adjoins to Java, but is rendered almost inaccessible by its entire want of harbour. Here the Hindoo institutions flourish in full vigour, and the worship of Siva is much more prevalent than that of Boodh; the distribution into four castes is fully established; and the same merit is attached to abstinence from animal food, though it is scarcely practised, unless by the priests. The sacrifice of widows takes place on a great scale, chiefly at the death of any of the great men; and the extent of the practice of polygamy renders its effects there very tragical. Mr. Crawfurd plausibly suspects it to be not wholly imported from Hindostan, but to be a remnant of the custom general in savage communities, where the chiefs enjoy extraordinary influence.

The Mahometan creed, introduced from Arabia nearly four centuries ago, completely supplanted the Hindoo system among the Javanese and Malays. By this channel it came in the form deemed orthodox, and there has never been any mixture of sects. The practice here, however, is exceedingly lax; and it is allowed very little to interfere with the ordinary occupations and enjoyments of its votaries. They hold the festivals with considerable zeal, practise some measure of prayer and fasting, and set high value on performing the pilgrimage to Mecca. But they pay little regard to the prohibition of wine and other intoxicating liquors, and by no means immure their females with that jealous rigour which is usual among Mahometan nations. Seclusion takes place only among the great; and even they, instead of being offended by enquiries after their wives, consider it as a compliment, and usually introduce them personally to gentlemen with whom they have become intimately acquainted.

After the arrival of the Portuguese, the Christian nations soon became the ruling powers in the Indian archipelago. The only extensive conversion, however, has been that effected by the Spaniards in the Philippine islands; of which Lucania, the principal one, has, through the efforts of the missionaries, become almost entirely Christian; and though their instruction
has not been conveyed in the most enlightened form, it is generally allowed to have effected a very important improvement upon the rude natives. The Dutch colonists, inspired by a spirit almost entirely commercial, have not made the same exertions, and their monopolising and tyrannical spirit was little calculated to recommend their belief.

The intellectual character of the Javanese ranks lower than that of almost any other people who have made equal progress in the external accommodations of life; and their literature, like their religion, is almost entirely imported from Southern Asia. "In the Javanese schools," says Mr. Crawfurd, "a smattering of Arabic, with a religious view, is the only branch of instruction. Javanese literature itself is nowhere taught as a branch of education, but left to be picked up as occasion offers. Its acquisition seems not to be considered as a thing of utility or necessity, but rather as an accomplishment which it may be agreeable to possess, but which it is no discredit to be ignorant of. I have seen many a chief of rank who could neither read nor write; and out of the whole population of an extensive village, you cannot always be sure that you can find an individual that can do so. As far as concerns the women, literary education may be said to be altogether unknown. When one is seen that can read and write, she is looked upon as a wonder. I do not think that, during my extensive intercourse with the Javanese, I saw half a dozen that could do so. The palace of the sultan of Java afforded but a single example." Both the Malay and Javanese languages are uncommonly copious; but it is in a superfluous profusion of terms to express individual objects, while there is a total absence of those relating to general and abstract ideas. The dialects, especially the Malay, are distinguished by the prevalence of the smoothest liquid and vocalic sounds, and the exclusion of all harsh consonants. The Malay, in adopting a large portion of Arabic, has smoothed it down so as to harmonise with the original; and, being written in Arabic characters, which are considered sacred throughout the East, has acquired a general currency among the people of the Archipelago. The language of the Javanese, on the contrary, has an alphabet of its own, the characters of which are peculiarly neat, though seldom carefully written. This people have also a learned and sacred language, called Kawi, which, from the large infusion of Sanskrit, appears evidently to be derived from India, and is employed chiefly in abridgments of the Mahabharat, Ramayana, and other Hindu compositions. The literature of Java is almost entirely metrical, yet does not display those high efforts of fancy and passion which often distinguish the effusions of a ruder people. According to a late author, they contain neither sublimity, pathos, tenderness, nor humour; but, on the contrary, bombast, puerility, or utter inanity. History was unknown previous to the introduction of the Arabic religion and literature, since which time there has been a tolerably connected narrative of public events; yet the imperfection of this may be estimated when we state, that it is always composed under the eye of the prince whose actions it records, and who employs the writer merely as a servant whose only qualification is that of being able to string events into verse. Malay literature is chiefly in prose; and its largest portion consists in romances, or fragments of real story so disfigured as to be little better. They have the same tame character with the works composed in its brother dialect. The best compositions in both seem to be little songs, the effusions of natural feeling.—Celebes has a language and literature of its own; ruder, though in some respects more energetic, than the Javanese or Malay.

Dramatic entertainments, of a very peculiar nature, are cultivated with ardour, particularly in Java. They seem to be only a step beyond the practice of common story-telling, which is so general throughout the East. The dialogue, or leading personage, sits in front of the stage, and reads in a chanting tone one of the national romances. The performers behind, covered usually with grotesque masks (Fig. 736), accompany his recital with corresponding movements. Their place is frequently supplied by puppets, many of which are of that very peculiar description called scenic shadows,—monstrous and grotesque figures, of about twenty inches long, cut out of a stiff untanned buffalo hide, and commonly very highly gilded and painted.

Of ruder amusements the chase is pursued with ardour by the natives of Celebes on their large grassy plains, with small active horses, lightly harnessed, which they ride with great swiftness. This diversion is carried on with much less ardour in Java, and only in its unimproved districts; the natives possessing an inferior breed of horses, which they ride ill. Their most active chase consists in attacking the tiger by a circle of spearmen, while the prince often looks on as a spectator. The islanders in general are not fond of games where much bodily exertion is requisite, and take more pleasure in
sitting and contemplating the combats between pugnacious animals. Cock-fighting is a universal passion; the quality and exploits of game-cocks are celebrated in their poems and romances. They delight also to view the conflict between the tiger and buffalo, an arduous and equal struggle, in which, contrary to what might be expected, the buffalo is generally victorious. They take pleasure also in quill-fighting, and even in contests among a peculiar species of crickets. Games of hazard are also pursued with passion, even the lower orders squandering their hard-earned wages, and reducing themselves to destitution, by an excessive indulgence in them. This has suggested a singular expedient to those who employ Javanese to watch during the night over valuable property, and seek to overcome their almost irresistible propensity to forget their charge and fall asleep: a small sum given to them to gamble for completely secures their vigil. Dancing is also a favourite amusement, or rather occupation: it is solemn, stately, and slow, performed less with the legs than with the body and arms, and expressing feeling and passion rather than gaiety. The Javanese prince not only trains his concubines to dance, but causes them to exhibit in public. The messenger or ambassador, who approaches the royal presence, enters and retires dancing. In this position is taken the vow of friendship or of enmity, and even he who, in the extremity of despair, terminates life running a muck, performs this frantic deed in measured postures and movements.

The habitations of the East Indian islanders are of very simple materials and construction. The art, by which those magnificent structures were reared, the remains of which adorn the interior of Java, is entirely lost. They appear to have been constructed by the Hindoo settlers, and to have departed with them. The humble and mercantile character of the adventurers who introduced the Moslem faith is the supposed cause why the mosques, instead of the splendour which they display in other parts of the Mahometan world, are here coarsely and inelegantly constructed of temporary materials. The natives have lost even the art of turning an arch. Their very best houses are slight structures of bamboo, rattan, palmetto leaf, and grass. Those of the peasantry (fig. 737), simply constructed of these materials, and surrounded with trees and a little garden, produce a very pleasing effect (fig. 738), and consist chiefly of a roof supported by four pillars, both often highly carved and painted. The public halls of the towns, the mosques, and even the monarch's state hall of audience, consist only of such structures on a greater scale. To make one the commodious residence of a chief, it is enclosed by palings, or divided into apartments, by light partitions (fig. 739). The abodes of the great chiefs, and even the palace of the prince, are only distinguished by the greater number and size of these pandapas. The palace, however, is enclosed by walls, composed formerly of hewn stone, but at present only of bad brick, yet which form the only structures of masonry now reared in the country.

The dress of these islanders presents a medium, not very commodious or elegant, between the light close garments of the European, and the long flowing robes of the Asiatic. The principal part is the sarrung, or long robe, not fastened to the body, but loosely wrapped round the lower part, and fastened by a zone or sash. The coat, the other principal part of the dress, is only a loose frock. The Mahometans wear a cap resembling a turban; but the other inhabitants have the head naked (fig. 740). The rest of the body is either uncovered, or enveloped in vest, bodice, or pantaloons, according to the taste of different tribes. In the court dress, on the contrary, all the upper part of the body is naked, smeared with a yellow cosmetic, and loaded with gold ornaments (fig. 741). In the war dress, again, the coat, indeed, is laid aside; but the robe is wrapped close round the whole body; while besides the kris, or dagger, which is worn at all times, by every islander, a sword is stuck in the belt, and a long spear is brandished (fig. 742).

The diet of the islanders is simple, consisting chiefly of rice and fish, with little mixture of other animal food. It is eaten greedily, with little ceremony, and lifted to the mouth by
the hands, according to the general practice of the East. The people display a remarkable propensity to the use of narcotic stimulants. Wine and still more the spirits of their own manufacture, are liberally used, in defiance of Mahometan injunction; yet it is not in these that the chief excess is committed. It is in *bong*, a substance extracted from hemp; in tobacco, and of late above all in opium. The islanders, reversing the general practice of Asia, chew tobacco, and smoke opium.

Sect. VII.—Local Geography.

The local details of this extensive range of islands, especially as respects their interior districts, are in many respects imperfectly known, and many of them not very interesting; so that they will not detain us so long as the general description. We shall begin with the western islands, and proceed eastward.

Sumatra, the most westerly of the great islands, extends from north-west to south-east, above 1000 miles in length, and 160 of average breadth. It is situated immediately beneath the equator, which divides it into two nearly equal parts; yet it is protected from the evils incident to this position by chains of mountains, which extend along the whole of the interior, sometimes in several successive ranges, enclosing between them fine valleys and lakes. Of these Goonong-Pasmine, which Europeans, upon a very crude theory, have called Mount Ophir, exceeds 13,000 feet; while Goonong-Kasumira is nearly 1000 feet higher. These high chains so copiously water the plains and coasts beneath, that, instead of being in any degree parched and arid, they are overspread with too luxuriant a vegetation. The ground is almost choked with dense forests, and with canes, rattans, and other species of tropical underwood; and a great part of the southern shore consists of a forest of mangroves growing out of a morass. Culture has but partially and rudely cleared these encumbrances, and directed the fruitfulness of the soil to useful objects. Sumatra does not produce so many objects for exportation as smaller and even less fertile islands. The most important is pepper, produced in considerable abundance, yet not equal to that of Malabar. This island, however, excels all other countries in the abundance and excellence of its camphor. This substance consists of the concrete juice in the heart of a species of tree, which, however, is becoming daily scarcer, being cut down by the natives for its valuable wood. In Europe, camphor has only a limited use as a medicine and cosmetic; but the Chinese value it highly, and pay a much larger price for that of Sumatra than of Japan.

The kingdom of Acheen occupies the most northerly part of this island, extending opposite to the coast of Malacca. At the first arrival of Europeans, it held dominion over divers states both of the island and continent, and was dignified with the title of empire. Though now greatly reduced, and restricted within its original limits, it has always, amid violent internal dissensions, remained independent of any European power. The Acheenses are a seafaring race, bold, stirring, and often piratical, but inspired by no considerable share of commercial spirit. The capital city of Acheen presents a complete specimen of the seaports of these countries. It consists of about 8000 bamboo habitations, raised on posts above the marshy shore, and so completely enveloped in wood, that from the sea it appears like an extensive forest.

To the south of Acheen, but to the east of the great range of mountains, extends Menangkabao, which also, at an early period, held many states under its dominion, and was dignified with the title of empire. It was the original country of the Malays, whence they spread to other parts of Sumatra, to Malacca, and Borneo, till they became the ruling people in the Indian seas. This country is watered by a large lake, said to be thirty miles in length, though the precise situation is not ascertained; it abounds in gold, and is under very tolerable cultivation. The inhabitants appear to have made greater progress in the arts than
any of the other islanders. The gold and silver filigree work, the only fine manufacture in the Archipelago, is executed by them almost exclusively. They supply all the rest of Sumatra with arms; and, since the introduction of those of Europe, manufacture very good muskets and gunpowder. They were very early converted to the Mahometan religion; and their country and capital possess still a sacred character even among their neighbours the pagan Batta. The country was entirely independent of Europeans till recently, when the Dutch, taking advantage of intestine dissensions, penetrated into it, and established their supremacy.

The Batta occupy the country and coast on the opposite or western side of the mountains. This extraordinary race display in some respects a degree of civilization not to be found among the surrounding states. Their country is fertile, and cultivation generally diffused. They have an alphabet of their own, distinguished by the singularity of being written from the bottom upwards; and the characters are rudely stamped with the point of a dagger on the surface of a bamboo or branch; sometimes even upon a growing tree. In this rough manner, however, the majority of the people can both read and write. But with these attainments they combine habits which have been considered as belonging to the most extreme barbarism. Anthropophagy is not only practised in the heat of victory, to gratify deadly vengeance, but prescribed as a regular part of their laws and institutions. For all who are guilty of robbery, adultery, unlawful marriages, or other high crimes, the penalty is, to be publicly eaten by their countrymen. The officers of justice and the injured parties assemble at the place of punishment, with a provision of salt, pepper, and citron; the individual most enraged selects the first morsel, cuts it off, and eats it; the rest follow according to their rank, till the leader of the assembly severs the head, and carries it off as a trophy. Authors of good repute have asserted that they ate their aged and infirm relatives, after various ceremonies, among which was that of dancing round a tree, calling out, "When the fruit is ripe it must fall:" but, if this most unnatural practice ever prevailed, it is now entirely discontinued. The number of little tribes into which this people is divided, and who wage almost ceaseless war against each other with deadly cruelty, appears to be the circumstance which chiefly keeps alive among them this spirit of ferocity. They are assimilated to savage life also in the treatment of their women, who are regarded as little better than slaves, and on whom the labour of cultivating the ground and other hard tasks are devolved. The Batta are pagans, and their religion little known. From their ports of Barons and Tappanooy they export a large quantity of canphor, with gum benzoin and a few other commodities.

The kingdom of Siak occupies the eastern coast of the territory, of which the inland and western parts belong to the two states now described. A broad river, rising in the mountains of Menangkabar, traverses the territory, and is navigable sixty-five miles up to Siak the capital; but the chief trade is carried on at the seaport of Campar. The navy and commerce of Siak were once great, and are still considerable. The Dutch, besides the ordinary commodities of Sumatra, draw from it a considerable quantity of timber; but they have not formed any settlement upon its coast.

The southern quarter of Sumatra is on the whole the least improved, a great extent being marshy, uncultivated, and overgrown with dense forests. On its hills, however, is the most abundant growth of pepper, the commodity which Europeans principally seek in this island; and here their chief settlements have been formed. Palembang, on the eastern side, and Bencoolen, on the western, have long been the capitals: the first of the Dutch, the second of the English settlements in Sumatra. The sultans of Palembang generally encouraged commerce; and their country has been the chief mart both for pepper and for the tin of the neighbouring island of Bencoolen. The pepper is brought from a considerable distance in the interior. The Dutch long contented themselves with maintaining a fort at the capital, a town of 25,000 inhabitants, with a mosque and a palace handsomely built of stone; but in 1821, being involved in a quarrel with the sultan, they deposed him, and erected the territory into a province or residence. Great efforts were made by the English East India Company to raise Bencoolen into a place of importance: in 1714 they founded Fort Marlborough; and in 1810, their property there was estimated at £14,000. The settlement, however, never paid its expenses; and the trade, instead of increasing, dwindled away; so that in 1824 it was considered advantageous to exchange it with Holland for Malacca, and some small possessions on the coast of India, which, though of no great importance in themselves, served to connect and consolidate other settlements. The Dutch then annexed Bencoolen to the province of Padang, fixing at the town of that name the seat of their administration, and their principal trade. To complete the picture of this part of Sumatra, we may mention the Lampongs and the Redranges; interior tribes, under a rude feudal system, less improved on the whole than the Batta, yet having, like them, a language and alphabet, and not being guilty of the same savage enormities.

Sumatra is begirt by ranges of isles which, though comparatively small, present peculiarities that deserve some notice. On the western side, beginning from the southward, we may number Engano, the Pogguy or Nassau group, Siboera, Nyaa, Bali (or Hog). These islands
have a rugged and mountainous aspect, and Sebecroo is even the seat of an active volcano. The face of the country and the inhabitants have no affinity with those on the great island, but bear more analogy to the eastern part of the Archipelago, and even to the islands of the South Sea. Sago, instead of rice, is the staple food; the inhabitants, called by the Malayas Mantaway, tattoo their skins, and speak a language quite different from that of Sumatra. The Poggy islands are the chief seat of the rudest of these races, who are unacquainted with the use of metal, have no weapons but bows and arrows, and in many of their customs resemble the people of Otaheite. The natives of Nyas are much more frugal and industrious, rearing with success the hog and the sweet potato. Yet they are fierce and sanguinary, the country being partitioned among about fifty little chiefains, who wage deadly wars with each other. Nearly a thousand prisoners of war are annually sold as slaves, in which capacity the Dutch find them useful, though dangerous, as their fierce pride often impels them to the violent deeds familiar to those islanders.

The groups of the Nicobar and the Andaman islands may, for want of a more appropriate place, be here introduced. They extend northwards in almost a continued group from about 100 miles N.W. of Sumatra, where the Nicobar islands begin, to about 400 miles farther, where the Andamans terminate. The Nicobar islands are twelve, of which the principal are Sambelong, Carnicobar, and Nancorwry. They are generally hilly and woody, abounding in cocoa-nuts. The inhabitants are of the brown or Malay race, and are peaceable and well-disposed. The Danes, who called these Frederick's Islands, formed first a commercial settlement in 1756, and then a missionary establishment in 1769; but both were abandoned on account of the sickness of the climate. They have recently renewed the attempt, but, it is said, with no promise of better success. The Andamans consist of two long islands, the principal of which is about 140 miles from north to south. They are mountainous, woody, and in some parts very picturesque. The inhabitants, who are a variety of the Oriental negro, appear to be among the most degraded beings in existence. They go quite naked, live in hovels composed of twigs, never cultivate the ground, but subsist on fish; which, however, they shoot and spear with great dexterity. They have been accused of cannibalism, but perhaps without sufficient grounds. The English, with a view to the refreshment and shelter of their ships, attempted settlements first at Port Chatham in the large island in 1791, and then at Port Cornwallis on the smaller one in 1793; but both these stations were abandoned on account of the unhealthy climate.

Pulo Pinang, or Prince of Wales's Island, a small island of seven or eight leagues long, separated by a narrow strait from the coast of Malacca, was only one uninterrupted forest till 1786, when the English East India Company purchased it from the King of Quela, and formed a settlement there, with a view to the refreshment of their China ships. In 1805 it was made a regular government, subordinate only to that of Calcutta. The expectations of its becoming a grand ship-building arsenal have not been fulfilled; but it has acquired commercial importance by becoming the depot for the produce of all the neighbouring districts, as well as a place where all the vessels touched that passed between India and China; though in this respect it has been lately in a good measure supplanted by Singapore. Georgetown, the capital, consists of airy and spacious streets, and its markets are well supplied with provisions; but its ill-constructed fort is incapable of defence.

Off the eastern coast, Pamijor and Rupat, almost immediately contiguous to Malacca, form dependencies on the kingdom of Siak. Lingin and Bintang, farther out at sea, are the centre of a numerous group of islets of the most varied form and aspect; some mere naked rocks, others covered with trees and verdure. They have been long, to the Malays, a great seat both of commerce and piracy. They are ruled by a sultan resident in Lingin, who acknowledges the supremacy of the Dutch, and has lately ceded to them in full sovereignty the islet of Rho, separated from Bintang by a narrow channel. Rho, being made a free port, has acquired great importance both as an entrepôt and a place of refreshment; and its population amounts now to about 6000.

The island of Banca derives its sole importance from the mines of tin, already described. It was a dependency of Palembang till the Dutch lately erected it, with Billiton, into a separate residence or province. The latter is distinguished by its mines of iron, the most valuable in the Archipelago, and nails made from which are exported to the neighbouring islands.

Java, the great island which next follows, is separated from Sumatra only by the Straits of Sunda, one of the main entrances into the interior seas of the Archipelago. It extends from east to west about 600 miles, with an average breadth of about 100. From its eastern extremity there extends a succession of smaller isles, Bali, Lombok, Sumbawa, and Flores, separated from it and each other only by narrow channels, and forming, as it were, a prolongation of Java. This island, then, with its attendant group, shuts in on the south all the islands and seas of the Archipelago, and can hold with most of them a direct and ready communication. The English and Dutch, while they contended with each other for supremacy in these seas, placed the centre of their commerce and dominion on the northern coast of Java. This island also surpasses all the others in fertility, population, and general in-
provement. It does not indeed excel in the finer spices, and even in pepper is inferior to Sumatra. But it is fruitful in the staples of tropical produce, rice, sugar, coffee; and has extensive forests of teak. According to Mr. M’Culloch, the island yields 3,000,000l. of revenue to the Dutch government, who maintain there 15,000 troops, of which not less than 8000 are European.

Batavia (fig. 743.), the capital of Java, and of the Dutch possessions in the East Indies, is situated on the northern coast, and not far from the western extremity of the island. Several islets surrounding the bay on which it is situated, afford secure anchorage to vessels of 500 tons. A small river runs through the town, the facilities afforded by which are increased by navigable canals. These, multiplied to a superfluous extent, aided in producing that extreme insalubrity for which Batavia was long notorious. Vessels which entered the port either for trade or refreshment, left it often with the loss of more than half their crews. By accounts accurately kept for twenty-two years from 1750 to 1772, the number of deaths in a population of 70,000 amounted to 1,100,000; and in the year 1751 alone there died 58,600. Yet the obstinacy of Dutch avarice still adhered to this fatal spot; but, within the last thirty years, Batavia has been much changed. General D'Aumont conceived the design of transferring the seat of government to Sourabaya; and, though unable to effect this object, he demolished a great part of the fortifications, and transferred the barracks and official residence to the heights of Weltevreden. The English, during their occupation, were prompt by a national taste to desert entirely the town, and cover with their rural seats the neighbouring districts, particularly that of Buitenzooorg. When the place, however, was restored to the Dutch, the governor Van der Capellen applied himself to restore the town; and, by filling up useless canals, opening and widening the streets, he effected such an improvement, that it is now as healthful as any place in Java. The population, by a census in 1821, amounted, exclusive of troops, to 53,500. Of these 23,100 were Javanese or Malays, 14,700 Chinese, 12,400 slaves, 3000 Europeans, and 600 Arabs. At present it exceeds 60,000.

The commerce of Batavia is not only that of the island, but of nearly the whole Archipelago, with the exception of the Philippines. In 1828, the exports consisted of coffee to the value of 8,021,000 florins; mace, 90,000; cloves, 229,000; nutmegs, 221,000; rice, 1,134,000; tin, 866,000; sugar, 456,000; birds' nests, 521,000; piece goods, 499,000; Java tobacco, 401,000; pepper, 151,000; rattans, 111,000; salt, 119,000; various other articles, 3,372,000; treasure, 1,200,000: making an aggregate of 17,499,000 florins. The imports consisted of cotton manufactures, 4,778,000 florins; woollens, 261,000; provisions from England, 522,000; brandy and Geneva, 322,000; wines, 1,154,000; opium, 1,032,000; lead, 76,000; copper, chiefly from Japan, 4,634,000; steel, 41,000; iron, 206,000; India piece goods, 78,000; Chinese silk and cotton goods, 367,000; terra japonica, 478,000; rattans, 224,000; trijang, 36,100; marine stores, 264,000; various other articles, 3,431,000; treasure, 2,615,000: in all, 17,976,000.

The interior details of Java cannot, consistently with our limits, be described at great length. It is divided by the Dutch into twenty provinces, which they call residences. Of these, Batavia, Bantam, Buitenzooorg, Preangers, Krawang, and Cheribon, compose the western part; while Tegal Pekkelumang, Kadon, Samarang, Japara, Rembang, Grisse, Sourabaya, Passarumang, Besukie, Bangouwangu, Saurocarta, Djoecarta, Madura, and Samaenap, form the eastern. The two parts are divided from each other by the vast mountain, forest of Dayou Loukhour, on the frontier of Cheribon, composed of impenetrable woods intersected by foaming torrents and deep ravines. The western side of the island is in general more level and capable of very general cultivation. It is almost entirely subjected to European influence, and now modes and objects of culture have, under European auspices, been introduced. The eastern part bears a different character; it is mountainous, wooded, and romantic, yet diversified with rich and beautiful valleys, carefully cultivated upon the native system. This part of the island has always been occupied by the most powerful native princes, ancient and modern, the latter of whom still maintain a large measure of independence, and pay only homage and tribute to the Dutch. Here, too, in consequence, are all the monuments of ancient greatness, and of the faith which formerly prevailed in Java.
In the western quarter, Bantam, next to Batavia, is the most celebrated district, having been long the capital of the English settlements, not only in the islands, but in all the Indian seas. The sultan has lately been dethroned by the Dutch, who have taken the administration entirely into their own hands, and have, it is said, introduced considerable improvements. The town of Bantam is now almost deserted in consequence of its unhealthy situation, and the transference of the trade to Batavin. Ceram is now the principal place, and the residence of the governor. The rest of this division is almost entirely partitioned among little princes, held in strict subjection to the Dutch. Tjanjor, one of the chief interior towns, has been described as composed of broad alleys bordered with hedges of bamboo, the houses surrounded by fruit trees and odoriferous flowers, and communicating with each other by shaded footpaths.

The eastern part of Java, of which the general character has already been described, contains the kingdoms of Souracarta and Djoejocarta, fragments of the dominion which, under the title of the empire of Mataram, held sway formerly over the greater part of Java. The former is estimated by Sir S. Railles to contain 972,000, the latter 685,000 inhabitants. The loftiest mountains and the finest valleys are found in this region. The two capitals, bearing the same name with the kingdoms, are estimated to contain each about 100,000 inhabitants; but are merely collections of large straggling villages. The residences of the sovereigns are only clusters of various edifices surrounded by brick walls. The Dutch maintain well-constructed forts and strong garrisons to overawe the natives.

The ancient structures, already alluded to as distinguishing this part of the island, deserve some more particular mention. Mojapahit, the capital of the greatest princes who formerly ruled over Java, may still be traced in the district of Sourabaya by extensive ruins of walls and temples, built only of brick, yet displaying often considerable beauty. But the most complete example of a temple is that of Boro Budor (fig. 744.), situated in the mountainous and romantic, yet fertile, territory of Kadou, immediately to the east of Cheribon. It is a square structure of hewn stone, each side 530 English feet long, and the height 116 feet.

It is built on the summit of a small hill, and consists of a series of six enclosing walls, crowned by a dome. The outer and inner side of each wall is covered with a profusion of sculpture, including between 300 and 400 images of Buddha, from whom the temple, perhaps, received its name. But the most extensive display of ancient architecture is at Brambanan, in the district called Mataram, between Souracarta and Djoejocarta. The temples, though built of hewn stone, are small, but clustered in extensive groups, of which the largest is that called the Thousand Temples. It occupies a space nearly square, 660 feet in length by 550 in breadth, within which are four rows of small edifices, surrounding a large central one. The whole group has four entrances, each facing a cardinal point, and guarded by two gigantic statues, of the form here represented (fig. 745.), and which are nine feet high though kneeling, and eleven feet in circuit. Singhassari, also, in the district of Malang, once the seat of a powerful monarchy, presents a wonderful multitude of temples and images. In general these structures are profusely covered with minute and often elegant ornaments and sculptures; but they are broken into too many similar parts, and consist only of sculptured walls, without columns, arcades, or any thing which can make them combine unity with relief and variety.

The sea-ports of Samarang and Sourabaya, on the northern coast of the eastern division, though quite subordinate to Batavia, are still considerable. The former is the seat of government for the principal eastern provinces, including the two great Javanese kingdoms. It has a flourishing commerce, and a population of nearly 40,000. Sourabaya, still farther east, in a very fine country, the seat of the ancient empire of Mojapahit, is still more flourishing, both as a mart for the products of the surrounding country, and as a place of refreshment for vessels bound to China and the Philippines. Its road is spacious and safe, and its
fine naval arsenal derives ample materials from the forests of teak by which it is surrounded. The population is estimated at about 50,000.

The island of Madura has been erected by the Dutch into one of their twenty residences; and they exercise almost entire control over the three native princes. The people still profess, to a great extent, the Hindoo religion, practise the burning of widows, and are accused of using poisoned arrows. Samanap, the capital, is only a large village, partly inhabited by Chinese. Bali is almost entirely independent, under eight native princes, and is chiefly distinguished, as already observed, by the complete prevalence of the Hindoo creed and institutions.

Of the range of smaller islands extending eastward from Java, Lombok, with high woody mountains in its centre, is fertile and well cultivated by an industrious race, who irrigate the lands by means of tanks, carry on a considerable trade, and afford refreshments to European vessels passing eastward. Sunbawa is of greater extent, being 180 miles long, and containing in its eastern quarter the powerful kingdom of Bima, tributary to the Dutch. This island affords a large supply of sapum wood for the Chinese market. It contains a very active volcano, which in 1815 committed dreadful ravages.

The large islands of Flores and Timor, extending in the same direction, may be considered as the link between the Oriental and South Sea islands, to which last, both in customs and language, the natives bear a close analogy. Flores is very little frequented by Europeans, and has ceased to afford, as formerly, its supply of sapum wood. On Timor, however, the Dutch have formed the settlement of Comang, with the view of procuring provisions from the Moluccas, and, by making it a free port, have raised it to some importance. It has become a great mart for the trading, which is collected both on the neighbouring shores and on those of New Holland. The Dutch, with difficulty, hold in vassalage the native states, of which the principal are those of Vevi, Laka, and Sanoro; and their influence is shared with the Portuguese, who, in their settlement of Dieli, retain still some remnant of that power which formerly extended so wide over this region. The smaller islands between Flores and Timor; Simus, Rotti, Duo, Savou, governed by rajahs, partly vassals of the Dutch, partly independent, call for little particular notice.

Celebes, to the north of Flores, is one of the most remarkable portions of the Archipelago. Its position, between 2° N. and 5° S. lat. 118° and 123° E. long., would indicate very large dimensions; but it is so indented by the deep bays of Bony in the south, Tomimie and Tolo on the east, as to form only a cluster of long peninsulas, while the distance from sea to sea nowhere amounts to 100 miles. The people are less advanced in civilization than those of Java, though they possess more of a bold energy of character. The native government is monarchical combined with a very turbulent aristocracy. The troubles by which it was agitated are attested by the very names of the princes taken from the manner in which they died; as "the throat-cutter," "he whose head was cut off," "he who ran a muck," "he who was beaten to death on his own staircase," and even the epithet "he who died reigning," strongly intimates the rarity of the occurrence. The Hindoo faith and institutions found little place in this island. It was not till the beginning of the seventeenth century that the Mahometan religion was introduced by the mingled power of force and persuasion. The Macassars of Goa were then the most powerful tribe, and held wide sway over this and even the neighbouring islands; they at one time fitted out against the Dutch a fleet of 700 vessels, and 20,000 men. About the middle of the seventeenth century, however, the state of Bony, supported by the Dutch, acquired a complete ascendancy, and that of Goa sunk into a reduced and vassal condition.

The Macassars and the Bugis are the two tribes who hold the leading place in this great island. The former, as already observed, are now completely fallen from their ancient supremacy, and closely confined within their original limits. The Dutch have exerted the cession of the city of Macassar, and its surrounding district, and have changed its name to Vlaardingen, erecting for its defence Fort Rotterdam. The sovereign continues to reside at Goa. The Bugis are divided into those of Bony and Waja. The former are much the most powerful, being able to muster 40,000 fighting men, and forming thus, at present, completely the ruling native state. But the Bugis of Waja are decidedly the most civilized and improved, and are, indeed, the most active commercial people in the Archipelago. Their vessels with cargoes which, according to Sir S. Raffles, are often worth 50,000 dollars, are seen in all the seas from New Holland to Siam. The entire population of the island is estimated, by Mr. Hunt, at about 1,000,000. The Dutch maintain their influence rather as the head of a numerous confederacy than as sovereign rulers. Besides the states already named, we may mention Sopeng, Mandhar, Southon, and Panete.

Bornce, if we exclude New Holland, as a continent, will rank as the largest island in the world, being between 800 and 900 miles from north to south, by 700 from east to west. It is also well gifted by nature. Though placed directly beneath the equator, the mountains of the interior, some 8000 feet high, with the large and numerous streams, entirely secure it from aridity; and though the soil, formed from primitive rocks, is by no means uniformly fruitful, yet rice and the usual tropical grains are raised with facility; pepper, cinnamon,
cotton, coffee, grow wild. This island, according to Mr. Hunt, enjoys a singular felicity in the absence of any ferocious animal, though the dense woods would afford them shelter, and they actually harbour the singular species of the orang-utan. The mines of gold, the most copious in the East, and those of diamonds, in which it is second only to Golconda, have been already described. Notwithstanding these advantages, Borneo is the rupest and least improved territory in this quarter of the world. The want of any deep bays and inlets, to facilitate communication and the access of foreigners into its interior, is probably the chief cause of its backward position. The inland tracts are now the chief haunt of the savage race of the Oriental negro, called here in different districts Dayak, Idaan, Maroot, &c. The Malays and other tribes, who have occupied generally the coasts and navigable rivers, describe these their inland neighbours in the darkest colours. They are represented as considering a man unfit for matrimony or any important function of life, till he has imbrued his hands in the blood of at least one fellow-creature; as so devoted to human sacrifice, that a number even of the poorer class will club together to purchase the cheapest man they can find, and offer him as a victim; that they devour the flesh of their enemies, drink their blood, use their bones and skulls as ornaments, and even as money. Through hollow wooden tubes they blow poisoned arrows, the wound of which is said to be mortal. Yet it is certain, that many of them cultivate the ground, rear domestic animals, and carry on some trade; and a tribe called Binjoe are active navigators, roaming from shore to shore, amid the perpetual summer of the tropic. Mr. Hunt accuses the Malays of exaggerating the offences of these poor savages, whose enmity they have justly incurred by driving them into the interior, and seizing every opportunity of catching and selling them as slaves.

The local features of this island, with the exception of the gold and diamond mines already described, do not require very detailed notice. Borneo, or Bourn, capital of a kingdom which, during its greatness, gave name to the whole island, is built upon piles on the swampy banks of a large river; canals run through its streets, and the communication from house to house is partly by boat. It has much declined, and is said to contain less than 3000 houses, and only 10,000, or 12,000 inhabitants. Succadana, a great commercial place in the middle of the western coast, was, in the end of last century, subverted by an Arab named Abdul Rachman, assisted by the Dutch, who, in conjunction with him, founded Pontiana. This place, according to Mr. Hunt, is now the most flourishing in the island, and its population, therefore, is probably under-rated by M. Balbi at 3000. In the southern quarter, the trade centres chiefly in Banjermassau, a port of 6000 or 7000 inhabitants, capital of a kingdom almost entirely under the control of the Dutch. In the interior, the chief states are Matan, the most central district, which once assumed the title of empire, and held Succadana and a great part of the western coast; but the sovereign is now confined to his inland possessions, Sumbas and Monpava; celebrated, especially the last, for gold mines worked by Chinese, who form the chief inhabitants of Montrand, its capital.

The Sooloo, called by some the Suluk Islands, off the eastern coast of Borneo, and closely connected with it, may be properly introduced here. They are twenty-seven in number, the great Sooloo being thirty miles long and twelve broad, and the population of the whole is estimated at about 300,000. The people are almost entirely devoted to piracy, for which their situation, on one of the most frequented routes of the Eastern Sea, affords ample facilities. Mr. Hunt, in the Friend of India, has drawn a striking picture of this “Alger of the East.” From 300 to 400 vessels, whose crews amount to 10,000, are continually issuing forth on this fierce and perilous occupation. It is carried on under the sanction of the sovereign, who draws twenty-five per cent. of the proceeds. Yet the same people are animated by an active spirit of commerce, which, in one direction they seek to destroy, but in another cherish and protect it. The vessel which, encountered in the open sea, would have been instantly seized, plundered, and the crew sold as slaves, from the instant it has anchored in the road of Sooloo, enjoys perfect security. We presume, though our authority does not expressly say so, that proof of being bound to or from this destination will place the vessel in safety. The banks of pearls already noticed, and the supplying of China with tripping and bird’s-nests, afford scope to a considerable traffic.

Singapore (fig. 746.), become the centre of the commerce of all the islands now described, may now be treated of in connection with them. It is situated on an island at the southern extremity of the peninsula of Malacca, at the eastern opening of the straits bearing that name. It was founded only in 1819 by Sir Stamford Raffles, in a position so happy that all the commercial tribes of those seas immediately made it their emporium. In 1824, its population amounted to 10,083; in 1830, to 16,034; and in 1833, to 20,078; of whom 119 were Europeans, 7,131 Malays, 8,517 Chinese, with Arabs, Jews, Hindoos, Bshis, &c. About 5000 Chinese arrive annually by the junks; of whom 1000 remain, the others disperse among the neighbouring settlements. The Bugis with their proas arrive not only from their own but the neighbouring islands. Their number is about 200 annually from the west coast of Borneo, from the east coast, and Celebes; from Bali, Lombok, and Sumbawa. The imports in 1827 and 1828 amounted to 1,458,000l., and the exports to 1,387,000l. The amount is said to have since nearly doubled. The articles dealt in are all those of
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China, the Oriental islands, and the Indo-Chinese countries, with British cottons and other manufactures.

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Singapore.

The Moluccas, or Spice Islands, derive their great celebrity from producing the precious commodities of cloves, nutmegs, and mace, which have been already described. In other respects they present few objects of much interest. Gilolo, the largest, broken, like Celebes, into a cluster of peninsulas, presents the usual spectacle of a rude people governed by a number of turbulent chieftains. Ceram is nearly similar, except that the greater part is under the power of a single sultan, dependent on the Dutch, who take vigorous measures to check the disposition to piracy among the natives. Small islands, contiguous to these great ones, occupy, in this group, the most conspicuous place. Ternate and Tidore, off the western coast of Gilolo, the one twenty-five and the other twenty-one miles in circuit, have always held a sort of political supremacy. The early European navigators found them contending for the sovereignty which they still hold over the greater part of Gilolo, though in subordination to the Dutch. Ambon, an island near Ceram, thirty-two miles long and twelve broad, is distinguished as the chief settlement of the Dutch, and the only place where, till lately, they permitted the clove to be reared. They have divided it into cantons, where this precious spice is cultivated, under the superintendence of native chiefs, who are responsible for delivering the whole to the government. The town of Ambon is neatly built in the Dutch style, and contains a population of about 7000. Fort Victoria, built by the Portuguese, still defends it. The ten small Banda islands, of which the principal are Neira, Pulo Ay, and Iantour, are distinguished by the growth of nutmeg, raised under the same exclusive system. Nassau, the residence of the Dutch governor, is a small town, with 1000 inhabitants, on the island of Neira.

The Philippines form an extensive group of two large and nine smaller islands, situated at the north-eastern extremity of the Archipelago. Few countries are more favoured as to soil and climate. Though placed but little north of the equator, the height of the mountains, and the ocean breezes, preserve them from suffering under any severe or scorching heat. The moisture derived from their exposure to the vapours of the Pacific is somewhat excessive; yet, combined with the heat, it produces a most luxuriant vegetation. Still these islands are rather rich in the staple tropical productions, rice, sugar, &c., than in those aromatics for which some of the other islands are celebrated.

Among the natives there are a considerable number of the negro race; yet, long before the arrival of the Europeans, these had been driven into the mountains by the Bisayans, a branch of the brown oriental race. These cultivated the ground with considerable diligence, and had raised themselves above the completely savage state; yet they had not, like the other islanders, received colonies, or imported any high civilization from the great Asiatic kingdoms. The most improved tribe were the Tagalas, inhabiting the sea-coast of Luzon, who constructed and navigated vessels of some magnitude with considerable skill, and had a language which was considered classical throughout the islands.

The Spaniards early took possession of the Philippines, and, if we except the English expedition of 1762, possessed them without interruption from any of the other European powers. This people, who labour under severe reproach as to the management of their other colonies, seem to have deserved less blame here. They imposed, indeed, on the natives a heavy poll tax, but did not cramp their industry; and the missionaries assiduously communicated to them, along with the true religion, a tincture of European arts and knowledge. Hence Mr. Crawford conceives that, while in all the others the character of the natives has been deteriorated, in the Philippines it has been decidedly improved by European intercourse. They took arms, accordingly, in defence of these masters, when attacked by another power. The foreign trade, however, was subjected to those jealous restrictions imposed by the prevailing policy of Spain. It was limited to a single galleon, despatched annually from Manilla to Acapulco. Notwithstanding the circumstance of there being only one, yet the mystery and the splendid ideas attached to the very word galleon
diffused an impression that Manila was a place of immense wealth; and the British expedition which captured it in 1762 imposed a contribution of 1,000,000£. sterling, which the city was wholly unable to pay. When exact information was obtained of its commercial transactions, they proved to be very limited. They have materially increased since the Spanish revolution, which, loosening the ties with the mother country, threw open the trade to other nations, and the monopoly has never since been re-established. In 1827, the exports in indigo, sugar, tripang, birds'-nests, sharks'-skins, sapu wood, ebony, rice, dried flesh, pepper, mats, cloth, &c., amounted to 936,000 dollars, with 110,000 in treasure; the imports, to 937,000 dollars, with 156,000 in treasure. The trade appears, by Mr. M'Culloch's statements, to have since increased nearly one-half, though it is still very inferior to the vast capacities of the country.

In regard to local features, the island of Lucon is covered to a great extent with high mountains, among which are several active volcanoes, with hot springs in their vicinity; and violent shocks of earthquake have been felt at Manila and in other quarters. The city is built at the mouth of a fine river, on a noble bay, and three leagues to the southward is a good and safe harbour at Cavite. On opposite sides of the river, connected by a noble bridge, are the war town and the trade town; the latter much the larger, but the former better built, the seat of government, containing some handsome edifices, and churches richly decorated. The population has been very variously estimated, chiefly because some do and others do not include its extensive suburbs. M. Balii thinks that with these it may contain 140,000 people, which would make it the greatest city in the Archipelago. Mindanao, a large island, 300 miles long, is little occupied by the Spanish; whose chief settlement, Samboangan, is used only as a place of banishment. On the eastern side is the large kingdom of Mindanao; the rest is occupied by various tribes, among whom 20,000 are Mahometans, and 61,000 almost savage. Similar observations will apply to Mindoro, a fine island, but little known, and respecting which we need not refute the report of the early navigators, that its inhabitants had tails. We may mention, also, Samar, where the missionaries have made pretty extensive conversions; Zab, which derives a dark celebrity from the death of Magellan; Panay, Marindique, Negros, Alcobate, Buhal, and Leyte.