



founded in 1550, and reorganized in 1875; and Alderman Taunton's school, founded in 1752, and lately remodelled. The school board was established in 1871. The benevolent and charitable institutions are numerous, embracing the dispensary (1809), the royal South Hants infirmary (1838), the female orphan asylum, the homœopathic dispensary (1873), St Mary's cottage hospital (1873), and the Palk memorial home (1876). To the north of the town is Southampton Common, formerly part of the manor of Shirley; and adjoining the town to the north of Above Bar Street is the Public Park, prettily laid out and containing statues of Lord Palmerston, Dr Watts, and Mayor Andrews. The town is supplied with water partly from artesian wells and partly from reservoirs. The population of the municipal borough (area 2004 acres) in 1871 was 53,741, and in 1881 it was 60,051. In 1885 the area of the parliamentary borough, formerly coextensive with that of the municipal borough, was extended to include the parish of Millbrook, the ecclesiastical district of the Holy Saviour, Bitterne, the parish of St Mary Extra, and the detached portion of Hound included within St Mary Extra. The population of this area in 1881 was 84,384. It is represented by two members.

The importance of the port dates from the Norman Conquest, and was originally due to its relation to Winchester. It had a considerable trade in wine as early as 1152, and from Queen Mary it obtained a monopoly in the importation of sweet wines from the Grecian islands. With Venice and Italy it had a large trade as early as the 14th century, and in the subsequent century it had a connexion with Newfoundland, while its Channel trade and its shipbuilding were also of importance. About the end of the 16th century its trade had, however, begun to decline, and the visitation of the plague in 1665 tended still further to aid its retrogression. Some improvement took place in its prospects by the creation of a Pier and Harbour Commission in 1803, and the erection of the Royal Victoria pier in 1831 was a further step towards prosperity, but its modern trade really dates from the opening up of railway communication with London in 1840. It possesses one of the finest natural harbours and has the advantage of a double tide, a second high tide occurring two hours after the first. While largely dependent for its import trade on its connexion with London and its easy communication with France, it has become an outlet for the manufactures of the midland and northern towns. Its great tidal dock, completed in 1842 at a cost of £140,000, has an area of 16 acres with a depth of 18 feet at low water, and the inner dock, completed in 1851, an area of 10 acres and a depth of 28 feet. Two other docks embracing an area of 50 acres are being constructed. There are also four dry docks, capable of receiving vessels of the largest tonnage at all tides. Within recent years the port has lost the overland trade between London and India by the removal to London of the headquarters of the Peninsular and Oriental Steam Navigation Company. At present it is the headquarters of the Royal Mail Steam Packet Company for the West Indies and the Pacific (*via* Panama) and for Brazil and the River Plate, the Union Line for the Cape of Good Hope, Natal, and East Africa, and the London and South Western Railway Company's steamers to the French coast. Steamers also sail regularly for Ireland and various ports on the west coast of England; and the steamers of the North German Lloyd Company touch at the port on the way to and from New York, and also to and from Asiatic and Australian ports. The total number of vessels that entered the port in 1876 was 7840 of 1,201,301 tons, of which 3780 with a tonnage of 201,434 were sailing vessels, and 4060 with a tonnage of 999,867 were steamers. The number that cleared in the same year was 8047 of 1,174,365 tons, of which 3994 (196,064 tons) were sailing vessels, and 4053 (978,301 tons) were steamers. In 1885 the number of vessels that entered the port was 9768 of 1,539,357 tons, of which 3456 (175,900 tons) were sailing vessels, and 6312 (1,363,457 tons) were steamers. The number that cleared in the same year was 9641 of 1,523,759 tons, of which 3350 (182,668 tons) were sailing vessels, and 6291 (1,341,071 tons) were steamers. Since 1845 the trade has increased more than tenfold, although within recent years the port has suffered from the prevailing dulness. The total value of imports and exports in 1845 was £1,475,000; in 1880 the value of the imports was £9,205,183 and in 1884 it was £7,544,354; for these last years the value of the exports of United Kingdom produce was £9,306,326 and £6,909,072; while the value of the exports of foreign and colonial produce and manufactures in 1882 was £1,589,652 and in 1884 £1,150,954. Among the principal imports are cocoa, coffee, corn (including maize), apples, provisions (especially butter, eggs, and potatoes from France and the Channel

Isles), rum and brandy, sugar, wine, wool, and rags. Among the principal exports of the produce of the United Kingdom are apparel, cotton goods, leather, linen goods, machinery, copper and iron goods, woollen and worsted goods. The number of ships built at the port in 1885 was 19, of 17,875 tons burden.

The Roman station of Clausentum was situated at Bitterne on the opposite side of the Itchen, where extensive Roman remains have been found. The present town was founded by the West Saxons, probably soon after their landing under Cerdic and Cynric on the shores of Southampton Water in 495. The name Hantun-scire (Hamptonshire) occurs in the *Saxon Chronicle* under date 755, and Hamtun is first mentioned separately in 837. The prefix "South" was probably added after the annexation of Wessex to Mercia in 920, to distinguish it from the Hampton in Mercia afterwards called Northampton. The town was frequently ravaged by the Danes in the 9th and 10th centuries. Canute, after his establishment on the throne, made it his occasional residence, and Southampton beach is reputed to have been the scene of his rebuke to the flattery of his courtiers, by the demonstration of his powerlessness to control the waves. Southampton is mentioned in Domesday as Hantune. It possessed a mint as early as 925. It was frequently visited by successive monarchs from the time of Henry I. In 1338 it repulsed an attack of the French and Genoese. In 1415 it was the rendezvous of the army of Henry V. for France, and during his stay in the town he detected the conspiracy against him of the earl of Cambridge, Lord Scrope, and Sir Thomas Grey, who were executed outside the Bargate. In 1512 the marquis of Dorset embarked from the port with 10,000 men to the aid of Ferdinand of Spain against France, and in 1522 the earl of Surrey set out from it with a large fleet to escort Charles V. Queen Elizabeth held a court at Southampton in 1569. On account of the outbreak of the plague in London in 1625 the council was transferred by the king to Southampton, where on the 7th September a treaty was signed with the United Provinces. The town received its first charter from Henry II., and a charter of incorporation from Henry VI. in 1445 under the style of "mayor, bailiff, and burgesses." This charter was somewhat modified by that granted by Charles I. which remained the governing charter till the passing of the Municipal Act. The corporation act as the urban sanitary authority. The town first returned members to parliament in 1295. Among eminent persons connected with Southampton are Dibdin the song writer, Bishop Peacocke, Thomas Fuller, and Dr Watts.

See History of Southampton, by J. Sylvester Davies, 1883.

SOUTH AUSTRALIA, which lies between 129° and 141° E. long., has New South Wales and Victoria on the E., Western Australia on the W., and the Southern Ocean on the S. Originally its northern line was 26° S. lat., but by the addition of the Northern Territory, or Alexandra Land, the area has been extended from 380,070 square miles to 903,690, and the northern border carried to the Indian Ocean. The length is therefore from lat. 38° S. to 11° S., nearly 2000 miles. Being much more northern and less southern than the neighbouring colony, its present designation is incorrect in point of fact.

The southern coast-line shows two large gulfs, Spencer and St Vincent,—the first 180 miles long, the other 100. Spencer Gulf is open to the ocean, while St Vincent Gulf is partly shielded by Kangaroo Island, with Investigator Straits as its westerly entrance and Backstairs Passage for an easterly one. Yorke Peninsula separates the two gulfs. Port Lincoln and Sleaford Bay are at the south-west of Spencer Gulf. On the western side of Eyria Peninsula—the land westward of Spencer Gulf—are the following bays:—Coffin, Anxious, Venus, Streaky, Denial, and Fowler. The junction of South and Western Australia is on the Australian Bight. Encounter Bay is on the Victorian side, with Lacedpede, Guichen, Rivoli, and Macdonnell Bays to the south-east. Flinders, Investigator, and Nuyt Islands are south-west. Cape Jervis is at the eastern entrance of St Vincent Gulf, Spencer at the western. In Northern Territory are Melville, Adam, Arnhem, and Raffles Bays, Van Diemen's Gulf, Port Essington, and Port Darwin (lat. 12° S.). The Gulf of Carpentaria divides the territory from Cape York Peninsula of Queensland. Melville, Bathurst, and Groote-Eylandt are northern islands. The ranges of hills are few, rarely reaching 3000 feet. One chain runs north from Cape Jervis. Flinders range has Brown and Arden, 3000 feet. Lofty,

near Adelaide, is 2330 feet. Volcanic cones, as Gambier and Schanck, are south-east, near Victoria. In general the country is level, where not slightly undulating. It is far from being well watered, especially to the westward and in the interior. The Murray, passing through Lake Victoria, had previously received most of the drainage of the three eastern colonies. The Torrens flows by Adelaide. Few streams reach the ocean. Cooper's Creek drains part of Western Queensland. The Indian seas receive the Alligator, Liverpool, Roper, Macarthur, Daly and Victoria rivers. Albert and the Coorong are lakes at the Murray mouth. The depressed area northward contains Lakes Torrens, Eyre, Gairdner, Blanche, Hope, and Amadeus. The overland telegraph to Port Darwin passes mostly through an ill-watered country, with oases around springs. The population, 330,000, is principally within 100 miles of Adelaide, the capital, in lat. 35° S. The leading places north of Adelaide are Gawler, 25 miles, Barossa 38, Kapunda 49, Angaston 51, Port Wakefield 60, Clare 90, Kooringa of Burra Burra 100, Moonta 100 north-west, Kadina 96 north-west, Blyth 100, Morgan or North-West Bend 105, Broughton 150, St Petersburg 154, Port Pirie 155 north-west, Port Augusta 240 north-west, Colton 320, Blinman 350. To the east are Barker 21, Echunga 23, Nairne 25, Kingston or Port Caroline 170 south-east, Narracoorte 220, Penola 250, Gambier 290, Macdonnell 304. Lincoln is 210 west. Adelaide Port is 7, Glenelg 7, Brighton 10, Willunga 30 south; Goolwa, the Murray port, is 60 south. Palmerston of Port Darwin is the chief town of Northern Territory; Southport is 25 miles south of it. Other settlements are inland mining townships. There are 36 counties, 4 pastoral districts, 23 municipalities, and 112 district councils in South Australia proper.

Climate.—Excepting Western Australia, this is the driest portion of the island continent. The rain clouds from the Pacific or the Indian Ocean have little store left on reaching the South Australian districts. The north-west summer monsoons favour the northern coast-lands, though the rains penetrate but few miles inland. The trade-winds bring only dry blasts from the Queensland side. A large proportion of the south-western shore has a very partial deposition, and even the southern Yorke Peninsula, laved by two great gulfs, seldom shows any surface water. The conflict between the polar and equatorial currents occasionally throws down rain in the interior, though many a thunderstorm fails to let fall more than a few drops. But the south-eastern coast catches a fair amount of rain from the western breezes off the Southern Ocean. The settled districts have winter rains, when Adelaide plains are transformed from parched sterility to luxuriant vegetation. The average annual rainfall there is but 20 inches, with an evaporation of three times that amount. In 1885 (a dry year) Adelaide had only 16 inches. In some years only 5 inches have fallen, even on parts of the sea-shore. The interior, however, has been known to have extensive floods after sudden storms. The northern coast, as at Port Darwin, has from 50 to 70 inches, though for several months without a shower. The heat is considerable during the dry summer time, though cold is felt severely on winter mornings and nights, even in the tropics, when a dozen degrees of frost may be followed in a few hours by a temperature of 80° or 90°.

The health conditions of the colony are but little inferior, except in Adelaide and Port Darwin, to those ruling in Tasmania and New Zealand, which are so much cooler and wetter. Dry heat is never so prejudicial as a moist heat. A raging hot wind from the north and north-west, to which Adelaide is so unpleasantly exposed, is trying to young children, though it never brings noxious

gases. On the contrary, when passing over eucalyptus forests it brings down health-giving airs, in spite of 160° in the sun, or even 120° in the shade. Diarrhoea may trouble in summer, and catarrh in winter; but, with a birth-rate of 39 in the thousand and a death-rate of from 12 to 17, South Australia stands more favourably than England in relation to health. Recently, several townships had for the year but seven deaths in the thousand, exhibiting a freedom from mortality three times greater than London. The death-rate of the colony during 1885 was only 12·48 to the thousand, while the birth-rate was 37·70. One-third of the deaths were in Adelaide. Reports from the tropical Northern Territory speak of fever and ague, especially among imprudent gold-miners.

Geology.—The few mountain ranges scattered throughout the colony were once, in all probability, but islands rising in a mediterranean sea that connected the Indian Ocean and Java Sea with the Southern Ocean. Over at least the southern half of South Australian territory the water flowed in Tertiary times. The climatic effect of such an archipelago of islands must have been very different from what now is realized in that region. The rise of the country displayed that vast extent of arenaceous limestone forming the southern coast floor, and extending westward hundreds of miles in Western Australia, and far eastward in Victoria. The south coast is still rising. The Murray cuts its channel through this vast coralline formation. According to the Rev. J. Tenison Woods, the newer Pliocene is near Adelaide, while the older is at Mount Gambier. The Murray cliffs are Upper Miocene, and the Murray flats are Lower Miocene. He finds little or none of Eocene. Flint bands occur in this limestone, particularly at Gambier. The Biscuit country, south-east, has flat limestone concretionary cakes on the surface, more or less rounded. Beds of sand cover large areas of the recent rock. Caves abound in the Gambier district, provided with stalactites and stalagmites. Subterranean rivers flow through some of the caverns, and are occasionally reached by natural sloping wells. Gambier exhibits much Bryozoa limestone. Its 40 species and 16 genera of *Polyzoa* are in Lower Crag. The coral limestone there has extensive flint bands. *Foraminifera* are of many kinds; some of the Rhizopods are still existing in Australian waters. Sharks' teeth and large nautili are frequently met with. Most fossils are in casts, except *Pecten*, *Bryozoa*, *Echini*, &c. The Murray cliffs mark the remains of an extensive formation, since largely denuded. The Gambier deposits prove the presence of an ancient deep sea, when little of Australia, as we now perceive it, had any existence. The South Australian ranges are generally of Primary order, the Silurian formation being often pierced or flooded by igneous rocks, which have transmuted the strata. While granites and granitoids are in great masses, the basalts and greenstones of a later age are not wanting in the ranges. The Primary rocks are observed, also, in Eyria Peninsula, Port Lincoln, the central continental districts, and very prominently in the Northern Territory. Flat-topped sandstone hills prevail northward. Westward and south-eastward the Tertiary rests on a granite floor. Eastward there is the same Primary presence, with crystalline mountains developing silver mines just over the border. Metamorphic rocks, rising amidst Tertiary beds, are strong in Yorke Peninsula, producing much copper. The tablelands are of horizontal sandstone, often on spiriferous limestone. Desert sandstone may be Miocene. Near the Victorian boundary, in the south-east corner of South Australia, recent volcanic action is apparent. Several of the lakes there were once craters. The deep Blue Lake, or Devil's Inkstand, occupies the centre of Mount Gambier. The banks are nearly 300 feet high, and are formed of lavas and volcanic ashes. Cinder walls are detected, and other varieties of volcanic products. Several smaller cones surround the great mountain. The country itself is of the usual Tertiary limestone, more or less covered with ashes. Mount Schanck, between Gambier and the sea, is known as the Devil's Punchbowl. This cone of lava has an empty crater 200 feet deep. Gambier and Schanck are landmarks to passing mariners. Among the fossil forms in Tertiary Pliocene strata are those of the huge *Diprotodon*, a marsupial vegetable feeder 16 feet in height, with gigantic kangaroos, emus, wombats, &c.

Minerals.—South Australia, though without coal, was the first Australian colony to have a metallic mine, and the first to possess a gold mine. In 1841 the wheel of a dray, going over a hill near Adelaide, disclosed to view silver-lead ore. In the midst of the bad times in 1843 the Kapunda copper mine was found. In 1845 the wonderful Burra Burra copper was first wrought. The land, 10,000 acres, cost £10,000; and for several years the dividends to shareholders were 800 per cent. per annum. The first colonial mineral export was 30 tons of lead ore, value £128, in

1843. The copper declined as prices fell. It was £322,983 in 1885, when rates were £50 a ton, but £762,386 ten years before with over £90. In 1886 most of the mines were closed. Between 250 and 400 miles north of Adelaide a very rich copper district exists. Lead is very abundant. Manganese, nickel, bismuth, antimony, and silver have been mined. Tin is seen in granitic places. Iron occurs in almost all formations and in all conditions. There is abundance of hematite, micaceous bog, and other ores rich in the metal. Talisker and other mines paid in silver. The wonderful Silverton, of Barrier Ranges, in a desert, is just outside the boundary, though 800 miles only from Adelaide while 600 from Sydney. Gold was got from a quartz vein at the Victoria mine, near Adelaide, as early as 1846, but did not pay the company. Partial gold working has been conducted at Echunga, &c., in southern hills. There are rich alluvial and quartz gold mines in Northern Territory, at from 100 to 150 miles south of Port Darwin. For the year 1884 the yield was £77,935. Of 1349 miners 1205 were Chinese. Gold is now worked at Waukaringa, 225 miles north of Adelaide. Copper, tin, and silver are found in Northern Territory. Among other minerals asbestos, roofing slates, and fine marbles may be named. Some forty years ago precious stones, especially garnets and sapphires, were gathered in the Barossa Hills. Carbonaceous material is found at the Coorong, &c., yielding 50 per cent. of oil. Lake Eyre has a rude coal. Kapunda marble quarry is a success. In 1885 there were 16,493 acres leased for minerals. The value of minerals exported in 1885 was £338,132.

Agriculture.—This is essentially an agricultural colony. In its first establishment, farming was intended as the main occupation. The land was cut up for sale into eighty-acre lots with the view of settling the people on arrival, and concentrating them, instead of having them scattered as in the neighbouring colonies, in which pastoral pursuits completely dwarfed the farming industry. This wise provision made the colony for years the supplier of breadstuffs to Sydney, Melbourne, Brisbane, Perth, and Auckland. As neighbours became wheat-producers, Adelaide merchants had to seek markets in Natal, Mauritius, the Cape, or even Europe. At all times the state has lent every assistance to agriculture. As the colony suffers more from drought than anything else, public reservoirs are constructed and artesian wells are sunk. Forest culture has especially attracted Government attention. Reforesting and the establishment of nurseries for the trees, fruits, and vegetables of other lands go hand in hand. Forest reserves already amount to 150,000 acres. Hundreds of thousands of trees are annually planted.

The land system, sound at the beginning, has been repeatedly amended, especially with a view to the advancement of pastoral interests. Instead of cash sales, as formerly, conditional purchases may be made, extending over a long period, subject to conditions of residence and cultivation. At the end of 1884 only ten million acres had been purchased. There were, however, 53,000,000 acres enclosed, chiefly for pasturage, and 2,785,490 under cultivation. The crop for March 1885 was as follows:—wheat, 1,942,653 acres; fallow, 450,536; hay, 308,429; artificial grasses, 23,217; barley, 15,697; lucerne, 8649; oats, 7264; orchard, 5825; potatoes, 5666; pease, 4601; vineyard, 4590. The culture indicates a warm and dry climate, different from New Zealand or the tropical coast of Queensland. The product of South Australian fields is so much smaller per acre than in any of the neighbouring colonies that only an open level country of cheap land, with effective machinery at moderate cost, could be managed at a profit. Going northward from Adelaide the country becomes too dry for roots, and then too precarious even for wheat. The county of Adelaide is very favourably placed for vineyards, oliveyards, and orchards. About half the olive trees and a third of the almond trees are there. Of 3,704,107 grape vines in the colony, Adelaide county had 2,158,468, and Light, in the neighbouring hills, had 860,356. There were in 1884 473,535 gallons of wine made. The commissioners lately reported that the light white wines kept sound and good, while full-bodied red wines continue to improve with age. The Water Conservation Department is of great service to agriculture. Tropical cultivation receives some attention already in Northern Territory. The Chinese raise rice crops, there being heavy rains near the coast. Daly river has excellent soil and climate for sugar and coffee.

The pastoral progress has been considerable, notwithstanding want of moisture. In 1885 there were 1523 leases over 214,976 square miles, besides 257 annual leases with 11,214 square miles. There were then 168,420 horses, 389,726 cattle, 163,807 pigs, 6,696,406 sheep (twenty sheep per head of population). Of these the settled counties had 151,058 horses, 179,206 cattle, and 4,995,394 sheep. In Northern Territory, with 136,000 cattle, there were in December 1885 6000 horses and 40,000 sheep, that country, excepting in the dry interior, being unfitted for wool-bearing. The total export of wool grown in South Australia had only the value of £1,671,775 in 1885. The prices obtained were a fourth less than ten years before. The rabbit pest is felt as seriously in pastoral as in agricultural operations. Kangaroos are far less troublesome to stockholders than in Queensland. Where water can be procured by dams, reservoirs, or wells stock can be kept,

since, where the grass fails, cotton bush and various saline plants supply sufficient food. An artesian well lately was sunk 1220 feet. Wool is remarkably fine there. While a South Australia merino has 2720 serrations to an inch of wool, a Leicester sheep has but 1850.

Fauna.—South Australia is not separated from the neighbouring colonies by any natural boundaries; hence the fauna includes many animals which are also to be found in the land lying to the east and west. The northern half of the colony lies within the tropics, and possesses a tropical fauna, which is, however, practically identical with that of northern Queensland. In spite of its immense extent north and south, and a corresponding diversity in climate, the colony is poorer in animal life than its neighbours. It possesses thirty-five genera of mammals. These include both genera of the order *Monotremata*,—the *Echidna*, or spiny anteater, and the *Ornithorhynchus*, or duck-billed platypus, both of which are found also in eastern Australia and Tasmania. The other order of *Mammalia* associated with Australia, the *Marsupialia*, is well represented in South Australia. It contains seven genera of *Macropodidae* or kangaroos, including the wallaby and kangaroo rat, four genera of *Phalangistidae*, or opossums, and five species of *Dasyuridae*, or "native cats." Two genera of this family are peculiar to the region—the *Chalocercus* and the *Antichinomys*; the latter is found in the interior. It is a mouse-like animal with large ears, and is remarkable for the elongation of its fore-arm and hind-foot and for the complete absence of the hallux. The *Phascogomys*, or wombat, one of the largest of the marsupials, is also found in South Australia, and the curious *Myrmecobius*, or anteater of Western Australia. This remarkable animal is about the size of a squirrel; it possesses fifty-two teeth (a greater number than any known quadruped), and, unlike the other members of its order, the female has no pouch, the young hanging from nipples concealed amongst the hair of her abdomen. The *Chæropus*, with peculiarly slender limbs and a pouch opening backwards, is found in the interior. The remaining *Mammalia* consist of the dingo, or native dog, and a few species of *Muridae*, the mouse family, and *Cheiroptera*, or bats. There are about 700 species of birds, including 60 species of parrots. Of the 9 families peculiar to the Australian region, 5 are well represented, including the *Meliphagidae* (honey-suckers), *Cacatuidæ* (cockatoos), *Platycercidae* (broad-tailed and grass paroquets), *Megapodidae* (mound-makers¹) and *Casuaridae* (cassowaries). The last-named family is represented by the *Dromæus*, or emu, which is hunted in some parts of the colony. Reptiles are fairly represented: there are fifteen species of poisonous snakes. The lizards are very peculiar; South and Western Australia contain twelve peculiar genera. No tailed *Amphibia* exist in the continent, but frogs and toads are plentiful.

Flora.—The plant species resemble those of the eastern colonies and Western Australia, but are more limited in variety. The colony, from its dryness, lacks a number known elsewhere. Enormous areas are almost destitute of forests or of timber trees. The *Eucalyptus* family, so valuable for timber and gum as well as for sanitary reasons, are fairly represented. Acacias are abundant, the bark of some being an article of commerce. Flinders range has much of the valuable sugar-gum, *Eucalyptus Corymbosa*, which is being now preserved in forest reserves. Its timber is very hard and strong, not warping, resisting damp and ants. The head-flowered stringybark, *Euc. capitiellata*, has a persistent bark. A sort of stringybark, *Euc. tetradonta*, is found in Northern Territory. The gouty-stem tree (*Adansonia*) or monkey-bread of the north is a sort of baobab. About 500 northern plants are Indian. The *Tamarindus indica* occurs in Arnhem land, with native rice, rattans, and wild nutmeg. The cedar is of the Indian variety. Pines are numerous in the south, palms in the north; among the most beautiful is the *Kentia acuminata*. Banksias are very common in sandy districts. Flowering shrubs are common in the south. There are 130 known grasses in Northern Territory.

Fisheries.—Whaling was formerly an important industry about Encounter Bay, as sealing was in Kangaroo Island. The whales have migrated, and the seals are exterminated. On the northern side trepan or bêche-de-mer fishery has commenced, and pearl fisheries have been established. Of fish within colonial waters there are forty-two peculiar genera. The tropical north has similar fish to those of North Queensland, while those of southern bays resemble many of the species of Victoria, Tasmania, and New South Wales. There are the barracouta, bonito, bream, carp, catfish, rock cod and Murray cod, conger, crayfish, cuttle, dogfish, eel, flatfish, flat-head, flounder, flying-fish, gadfish, grayling, gurnard, hake, John Dory, ray, salmon (so-called), schnapper, seahorse, shark, sole, squid, swordfish, whiting, &c. Though called by English names, the fish do not always correspond to those in Europe. The Murray cod is a noble freshwater fish.

Commerce.—There is little speculative trade, the shipping being employed in the conveyance of the exports of the colony and the introduction of needful supplies. The imports during 1884 amounted to £5,749,853, of which £2,983,296 came from the United

¹ One genus of this remarkable family—the *Lipoa*—is confined to the district.

Kingdom, £997,785 from New South Wales, £714,272 from Victoria, £38,460 from Tasmania, £34,675 from New Zealand, £97,230 from India, £28,011 from Natal, £55,598 from Hongkong, £19,201 from Canada, £239,093 from Mauritius, £54,945 from China, £49,028 from France, £61,727 from Germany, £72,214 from Norway and Sweden, £186,236 from the United States. Of the exports, £6,623,704, there went to the United Kingdom £4,081,864; New South Wales, £773,240; Victoria, £651,019; Queensland, £255,746; Cape Colony, £249,844; India, £114,287; Western Australia, £132,554; Natal, £78,118; France, £57,500; Mauritius, £52,010; Belgium, £33,092. Among the exports during 1884 were wool, £2,616,626; wheat, £1,694,005; flour, £794,812; copper, £469,231; sheepskins, £87,455; silver-lead, £66,592; bark, £45,049; jams, £35,333; horses, £30,845; tallow, £28,403; wine, £17,061; gold, £15,469. There were imported overland 411,307 sheep, and exported 168,770. Of shipping, there entered 1120 vessels of 909,335 tons, and cleared 1111 of 925,197. The British amounts were 768,301 and 783,121 tons respectively. In the Northern Territory the imports were £140,229, exports £90,411; the gold export for the last six months of 1885 was £33,869. The assets of the eleven banks at the close of 1885 were £13,380,716,—total deposits £5,880,950. The Government savings banks, on June 30, 1885, had 53,164 depositors, with £1,571,283 as balances—five per cent. interest being allowed.

Manufactures.—Increased attention has been lately directed to local industries, and a more protective tariff has been enforced with a view to their development. The official returns for March 31, 1886, gave 640 works, employing 7952 men and 1850 women.

Communication.—The district councils have charge of many of the roads. The general dryness of the country is favourable to the condition of roads. Railways have been constructed for the conveyance of farming produce to market, the carriage of minerals to port, and the tapping of the Murray river traffic from the east. At the beginning of 1886 there were 1211 miles of railway open, and 570 in course of construction. The working expenses during 1885 came to £386,000, and the revenue to £556,000. There are several tramways, supplementing railway traffic.

Water-Supply.—The Government is aiding the railway movement for opening out the interior by the construction of waterworks and public reservoirs. To supply Adelaide, independently of the Torrens river, there has been an expenditure of £866,942. Kapunda has a reservoir of 41,200,000 gallons; Port Pirie of 25,700,000; Mount Barker of 6,000,000; Port Augusta of 666,000; Mount Gambier and Gawler each of 279,000. There are large storage tanks at many places, e.g., for 810,000 gallons at Moonta.

Administration.—The governor is the representative of the crown. The legislative council, of twenty-four members, one third retiring every three years, is chosen by 32,000 electors. The house of assembly, of fifty-two members, is appointed for three years by 60,000 electors. Responsible government dates from 1856. The public debt, contracted for useful public works, was £18,000,000 in 1886. For the year 1884-85 the revenue was £2,157,931, but expenditure was £2,430,513. A revision of the tariff was necessary. Customs yielded £511,230; railways, £662,455, against working expenses £411,850; land sales, £333,369; land rents, £182,013; waterworks, £72,366. The expenditure included £311,189 for public works, besides loans; police, £102,784; civil establishments, £73,828; legal, £50,051; charitable institutions, £86,968 (there being no poor law); military defences, £39,473; immigration, £51,129, &c. The Northern Territory gave £71,518 as receipts to the state, but with £85,000 charges. The revenue for 1885-86 was £2,279,039, and the expenditure £2,383,290. No Australasian colony has done so much for the good of the aborigines and the advance of good morals as South Australia. The administration is just and firm, being well sustained by public sentiment.

Education.—Not being so wealthy as its eastern neighbours, the colony has not been able to devote so large an amount to schools; still, a grant of £126,000 was made during 1884-85 towards the instruction of 50,000 pupils. Of 450 schools, half are called public, half provisional for thinly-peopled districts. Payment from scholars is not dispensed with as in Victoria. Lands are being set apart as educational grants for the future. All religious denominations are equal in the sight of the law, none receiving any state aid. Bible reading is sanctioned before school hours, and any religious lessons may be given at the close of school time. The Adelaide university, so richly endowed by the colonists, receives an annual grant of £2550 from the local parliament.

Population.—Including the Northern Territory, the population was returned in 1881 as 279,865 (149,530 males, 130,335 females), in addition to 6346 aborigines (3475 males, 2868 females). The births during 1885 were 12,046, and the deaths 3987 (2205 males and 1782 females). Classed at the last census according to religion, the population may be thus stated:—Church of England, 76,000; Roman Catholic, 42,920; Wesleyans, 42,103; Lutherans, 19,617; Presbyterians, 17,917; Baptists, 14,000; Bible Christians, 10,500; Primitive Methodists, 10,350; Congregationalists, 9908. The population in the Northern Territory, 3500, contains only about

a hundred females, but has 3000 Chinamen. More than half the people of South Australia, whether of English or German parentage, are native-born. In 1886 the population was 325,000.

History.—Though the coast of Northern Territory was well known to Portuguese and Spanish navigators as early as perhaps 1530, being called Great Java, it was not surveyed till 1644, when Tasman laid down the line of shore pretty accurately. The western part of the southern coast had been seen and named Nuyt's Land in 1627. But Flinders, by his discovery of the two great gulfs, Kangaroo Island, and Encounter Bay, in 1802, was the first to reveal South Australia proper. Captain Sturt descended the Murray in 1830, and looked over the hills near Adelaide. The first to direct attention to a settlement there was Major Baron, who communicated with the colonial office in February 1831. His suggestion was to establish, at no charge to the British Government, a private company, that should settle a party on Yorke Peninsula. He believed a large river entered Spencer Gulf. In August Colonel Torrens and others proposed to purchase land between 132° and 141°—500,000 acres at 5s. an acre. Some were in favour of Spencer Gulf, others of Kangaroo Island, and a few for the mainland towards the Murray. Memorialists in 1832 sought a charter for the South Australian Association, giving extensive powers of self-government. Land sales were to pay the passages of free labour, chiefly young married people, and no convicts were ever to be sent thither. Lord Goderich did not favour the scheme, and thought a colony with free institutions might prejudice the interests of New South Wales, while free trade would interfere with the English navigation laws. After much negotiation, the English authorities regarded the scheme more favourably, but would not consent to give the company the powers they sought. The company receded in their demands, and offered security for the proper observance of law and order, while depositing cash for the purchase of land. Captain Sturt in 1834 informed the colonial secretary that Spencer Gulf and Kangaroo Island were objectionable, but that the eastern side of St Vincent Gulf was the best locality. In 1835 the ministry got an Act passed for the erection of a colony, under commissioners appointed by the crown, who would be responsible for their acts to the British Government. It was arranged that a local government should be established when the settlement had 50,000 people. Mr George Fife Angas advanced a large sum as security to the state. Though the first settlers were sent to Kangaroo Island, all were afterwards gathered on the Adelaide plains. The colony was proclaimed under a gum tree, December 28, 1836. Great delay took place in the survey of land. The South Australian Company purchased large tracts from the commissioners at 12s. per acre and sold at 20s. A general speculative spirit arrested progress. Governor Gawler went into extravagant outlay on public buildings, &c., and drew against orders upon the English treasury. Such difficulties arose that the British rulers had to suspend the charter in 1841 and make South Australia a crown colony. A revival of prosperity took place when the farms were tilled and poverty had taught prudence. Copper and lead mines were subsequently discovered. Kapunda in 1843, and the Burra Burra copper mine in 1845, greatly aided in the restoration of commercial credit. The gold fever in Victoria drew off numbers in 1852; but the good prices then realized for breadstuffs gave a great impetus to farming. It deserves to be mentioned that rarely if ever has a colony been so favoured as South Australia in the character of its early settlers. (J. BO.)

SOUTH BEND, a city of the United States, the county seat of St Joseph county, Indiana, received its name from its position at a great bend of the St Joseph river, which is navigable to this point from its mouth at St Joseph on Lake Michigan. By railway the city is 85 miles east of Chicago. It is a great manufacturing centre, with iron-works, carriage, waggon, plough, and sewing machine factories, flour-mills, paper-mills, &c. The court-house is one of the best buildings in the State; and the Roman Catholic university of Notre Dame, St Mary's academy, and St Joseph's academy are institutions of some importance. The population of the city numbered 1652 in 1850, 7206 in 1870, and 13,280 in 1880.

SOUTH CAROLINA, one of the original thirteen States of the American Union, commonly known as the Palmetto State, from the abundance of this kind of palm on the coast, once formed a part of that vast territory of the New World claimed by the Spaniards under the name of Florida and by the French under that of New France; or, to be more concise, it comprised the southern or lower portion of what was formerly styled Carolina, and subsequently divided into North and South Carolina. It lies