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A NEW
GEOGRAPHY OF
SOUTH AFRICA.

(ILLUSTRATED.)

WHITESIDE.

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1910.

Admiral B. J. S. P. J.

A NEW GEOGRAPHY OF SOUTH AFRICA.

BY THE
REV. J. WHITESIDE.

FOURTEENTH EDITION.

WITH MAPS AND NUMEROUS ILLUSTRATIONS.

REVISED.



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1909.

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WINDY
TO
SARAH L. GARDNER

NOTE.

The number of the population is stated in parentheses after the name of each town, according to the Census returns of 1904.

J. WHITESIDE.

Uitenhage.

A NEW GEOGRAPHY

OF

SOUTH AFRICA.

STANDARD IV.

SYLLABUS.—STANDARD IV.

THE form of the Earth; Day and Night; Latitude and Longitude. To know the map of the Cape Colony, including features of coastline, chief mountain ranges, chief rivers and their basins, railways, situations and chief industries of towns having over 2,000 inhabitants. To draw said map from memory. Position of South Africa on the Globe. Names and situations of the various continents and oceans.

Form of the Earth.

1.—The Earth on which we live appears to be flat, but in reality it is a great ball or globe, slightly flattened at the Poles, not unlike an orange which is flattened at the spot where it hung by a twig to the tree, and at a scar exactly opposite.

2.—Among the proofs of the rotundity of the Earth are the following :—

(i) If we stand on a cliff and watch a ship as it leaves port and puts to sea, the hull first disappears behind the curve of the water, then the sails, and last of all the tops of the masts. If the surface of the earth were flat, the whole ship would fade from view at once. In a similar manner, when a ship approaches land, the sailor at the mast-head sees first the tall lighthouses, the church spires, and the hill tops, and then, one by one, the objects at the level of the sea.

(ii) If four poles of the same height are set up on a lake, the tops of the two poles in the middle will be above the line joining the tops of the two end ones, showing that the water, though it appears to be level, is really curved. In making water-ways or canals, a curve of eight inches to the mile has to be allowed to secure the same depth of water.

(iii) In an eclipse of the moon, caused by the earth coming between it

and the sun, the shadow cast by the earth on the moon is always part of a circle. Only round bodies can throw round shadows.

(iv) Many voyagers have sailed round the world, returning to the port from which they started. The first Englishman to do this was Sir Francis



Drake, who, in the reign of Queen Elizabeth, sailed round the world by way of Cape Horn, Java, and the Cape of Good Hope. His voyage occupied three years.

(v) If a man climbs to the summit of a high hill, his view is bounded by the horizon, where earth and sky seem to meet; and the horizon is in the form of a circle, showing that the earth is round.

(vi) The distance round the earth, or its circumference, is 25,000 miles, and the distance through the earth, or its diameter, is nearly 8000 miles. Owing to the earth being flattened at the poles, the diameter from pole to pole is twenty-six miles less than the diameter at the equator. Compared to the size of the earth this difference between the two diameters is very small.

Day and Night.

1.—The Earth is never at rest. It rotates or turns on an imaginary line called its axis, making Day and Night. The ends of the axis are called the Poles. It takes twenty-four hours to make one complete turn.

(i) There is really nothing to show that there is a line through the earth on which it turns, or that there are poles. We imagine that they are there so as to describe more easily the motions of the earth.

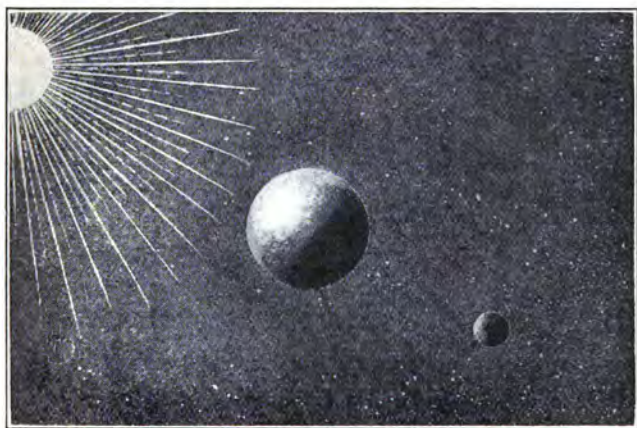
2.—As the Earth turns, some parts of its surface are towards the Sun, and others are away from it. The parts are constantly changing. Some parts pass into the light, others pass into darkness. The period during which the Sun shines on any place is called Day. The period of darkness is called Night. The passing into light is called Sunrise; when at any place the Sun is directly overhead, to that place it is Noon; the passing into darkness is called Sunset.

(i) Place a small globe on the table, and at a short distance set down a lighted candle. Turn the globe with your finger, and you will have a repre-

sensation of the earth turning on its axis, and exposing in succession each portion of its surface to the sun's rays, making day and night.

(ii) The earth really turns from west to east. If you are sitting in a railway train in motion, and look out of the window, the hedges, trees, and houses, seem to be speeding past you in the opposite direction to that the train is travelling. In a similar way, the earth turns swiftly on its axis from west to east; but the sun, during the day, and the stars at night, seem to move from east to west. It is the rotation of the earth, and not any movement of the sun, which causes day and night.

3.—The Sun seems to rise in the East, because each part of the Earth in its rotation turns eastward to meet the sunlight. The Sun



DAY AND NIGHT. EARTH AND MOON.

seems to go down in the West, because the place on the Earth, where we are, turns away from the Sun, and its light cannot reach us.

(i) As the circumference of the earth at the equator is 25,000 miles, it follows that every place on that line moves towards the light at the rate of more than a thousand miles an hour. As we approach the poles, the circumference becomes less, and the rate of surface movement diminishes.

Latitude and Longitude.

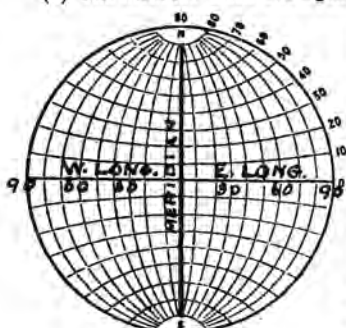
1.—In order to find any spot on the surface of the Earth, it is necessary to have certain fixed points and lines, by which we can describe its situation. As the Earth is a globe, lines drawn round it

are circles. Two kinds of circles are drawn in order to fix the position of a place.

2.—A number of circles are drawn round the globe parallel to the Equator, which is so named because it divides the Earth into two equal parts. The Equator is the only great circle, for the others gradually lessen until at the Poles the circle dwindles to a point. These circles are all at the same distance from one another everywhere, so they are called **Parallels of Latitude**.

(i) For the sake of convenience, each circle is divided into 360 equal parts, which are called degrees. Each degree is in turn divided into 60 equal parts called minutes, and each minute is again sub-divided into 60 equal parts called seconds. Four degrees, twenty minutes, and ten seconds are written thus: $4^{\circ} 20' 10''$.

(ii) The distance from the equator to either pole is a quarter of a circle, or 90° , and from pole to pole is half a circle, or 180° . The Tropic of Cancer is $23\frac{1}{2}^{\circ}$ North Lat., and the Tropic of Capricorn is $23\frac{1}{2}^{\circ}$ South Lat. The Arctic Circle is $66\frac{1}{2}^{\circ}$ North Lat., and the Antarctic Circle is just as far south. Sometimes the regions near the poles are called High Latitudes, because expressed in high figures, and those near the equator are called Low Latitudes.



Parallels and Meridians.

then the observer knows he is in 40° North Lat. In the southern hemisphere there is no corresponding star over the South Pole, so the latitude is found by measuring the angular distance of the sun from the point of the sky directly overhead called the Zenith. By this method a captain can always find out in what degree of latitude his ship is at the time he makes the observation. Places can be located in a similar manner. Thus, Capetown is 34 degrees south of the equator, written 34° S. If you follow that circle round the globe, you will find that Buenos Ayres, in South America, and Sydney, in Anstralia, are on the same degree of latitude, and are therefore at the same distance from the equator.

3.—But something more is necessary. If we are told that a place is 34 degrees south of the Equator, we are not sure of its exact position, for that line goes round the globe. Other lines are therefore drawn, extending from pole to pole, and cutting the equator at right angles. Each of these lines is called a Meridian, because all

places upon it have Mid-day at the same time. There are 360 of such Meridians, or Mid-day lines, and as there is no natural point from which to commence, the Meridian passing through Greenwich, near London, is adopted by the British and several other nations as the starting point. All Meridians are described as either east or west of Greenwich, and are called **Meridians of Longitude.**

(i) The meridian of Greenwich is 0° , and there are 179 meridians east of Greenwich, and 179 meridians west of Greenwich. When we know the latitude and longitude of a place we can fix its position on the globe exactly. Thus Capetown is 34° South Lat., and $18\frac{1}{2}^{\circ}$ East Long.

4.—The Sun passes over 360 degrees of Longitude, or round the Earth, in twenty-four hours, or one degree in every four minutes of time. Hence, when the Sun is directly overhead at Greenwich, at twelve o'clock, noon is four minutes later for every degree of Longitude a place is west of Greenwich, and it is four minutes earlier for every degree that a place is east of Greenwich.

(i) The longitude of a place is generally determined by means of an observation of the sun and a chronometer watch, accurately keeping Greenwich time. A captain at sea, and out of sight of land, finds by the aid of a sextant when the sun is directly overhead. It is then with him 12 o'clock (noon). Looking at his watch, he finds that at that moment it is 2 o'clock at Greenwich, a difference of 120 minutes, or 30 degrees. He knows, therefore, that his ship is in 30° West Long. On the other hand, if the captain is sailing east instead of west, when at Alexandria, in Egypt, he finds it is noon there when at Greenwich it is only 10 o'clock. The sun will not cross the meridian of Greenwich for two hours; hence he knows that he is in 30° East Long.

The World.

1.—The whole surface of the Earth has an area of 197,000,000 square miles, of which only 55,000,000 are land. Thus three-fourths of the Earth's surface are covered with water, and one-fourth is land.

(i) The dry land is very varied in its form. In some places it rises into mountains more than 20,000 feet above sea level, seamed with gorges and valleys, along many of which rivers flow. In other places are hollow places, which form the beds of lakes.

2.—The land is divided into two vast masses. The larger mass of land is that known as the Old World, because known to civilised nations for thousands of years, and consists of Europe, Asia, and Africa.

(i) Asia is five times, and Africa is three times the size of Europe. Europe has the most indented coast line, and Africa has the least indented. The greatest length of Europe and Asia is from east to west, and of Africa from

north to south. Africa is joined to Asia by the narrow isthmus of Suez. Cape Colony is the most southerly portion of Africa.

3.—The second great mass of land is the New World, or North and South America, joined by the Isthmus of Panama.

(i) The greatest length of North and South America is from north to south; the breadth of each decreases towards the south, and each contains extensive plains and great rivers. Where the New World bends in, the Old World bulges out. Brazil fits into the Gulf of Guinea, and Western Africa into the Gulf of Mexico.

4.—To the south-west of Asia is another compact mass of land called Australia. It is an island-continent, partaking of the character of both.

(i) Most of the land of the globe lies north of the equator, and most of the water lies south of the equator. By far the largest mass of land lies around London as a centre, which is thus favourably situated for commerce. The centre of the water area is New Zealand.

The Oceans.

1.—The sea is a continuous body of water divided for convenience of description into five great Oceans, the Pacific, Atlantic, Indian, Arctic, and Antarctic Oceans.

(i) The Pacific Ocean is the largest, and its basin could hold all the land of the world. It receives few rivers, but in its middle section are countless groups of islands. It lies between the Americas and Asia.

(ii) The Atlantic Ocean is next in size, and lies between the Old World and the New. The largest rivers flow into it, and it is bounded by fertile and highly civilised countries. It is also the greatest ship highway in the world.

(iii) The Indian Ocean lies to the south of Asia. It is a great warm sea, lying on both sides of the equator. It is often swept by heavy storms.

(iv) The Arctic Ocean lies round the North Pole, has a broad opening into the Atlantic, and a very narrow one into the Pacific. It is full of fields of ice.

(v) The Antarctic Ocean lies round the South Pole, is colder than the Arctic, and sends out a large number of icebergs. It is from the Antarctic Ocean the tides start and make their way across the other seas.

(vi) The average depth of the sea is $2\frac{1}{2}$ miles, but there are places, notably near Japan and the Caroline Islands, where the depth is over five miles. The floor of the sea is much more level than the surface of the land. It slopes rapidly from the continents to great depths, and then continues as a fairly level plain. Here and there are ridges, the highest points of which make islands.

A NEW GEOGRAPHY

OF

SOUTH AFRICA.

Lesson 1.—Countries, I.

South Africa consists of a large tract of country lying south of the River Zambesi, and a line drawn from Shesheke, above the Victoria Falls, to the mouth of the River Cunene on the West Coast. The only portions of this country not British are Great Namaqualand and Damaraland on the West Coast, which belong to Germany, and Gazaland, including Delagoa Bay, on the East Coast, which is a Portuguese Colony. British territory extends beyond the Zambesi far northward to the Great Central Lakes, but they are not a part of South Africa.

The shape of the country south of the Zambesi is not unlike an irregularly shaped triangle, having the apex at Cape Agulhas. The side of the triangle next the Atlantic Ocean consists of barren sand and sharp rugged rocks, almost destitute of grass and trees; the side next the Pacific Ocean is in many places marshy, and is the home of fever and the tsetse fly. The apex and the country on each side are healthy. So when the Dutch came, and afterwards the English, they settled at the south end of the triangle, and gradually made their way up the country towards the Zambesi River.

This large tract of country, which is ten times the size of Great Britain and Ireland, contains the following important colonies and territories:—

1.—The **Cape Colony** is the most southern country of the Continent of Africa. It possesses full self-government on the lines of the British constitution. The capital is **Capetown**.

(i) The Portuguese explorer, Bartholomew Dias, rounded the Cape in 1486. King John II., of Portugal, bestowed on the southern headland the designation of "the Cape of Good Hope," from which the Colony takes its name.

(ii) The Dutch took possession of the Cape in 1652. They were constantly sailing between Europe and the East Indies, and in the long voyage the sailors suffered severely from scurvy. A vessel has been known to enter Table Bay, and the crew had not strength to drop the anchor. The settlement at the Cape was intended to supply the Dutch ships with fresh meat and vegetables.

(iii) The British took the Cape in 1795, to prevent it from falling into the hands of the French, with whom they were then at war. In 1802, at the peace

of Amiens, the Cape was restored to the Dutch; but in 1806, on the renewal of the war with France, the British again seized the Cape, and the conquest was finally confirmed at the Congress of Vienna, in 1815. As compensation, the British paid Holland six millions sterling, and restored to it the island of Java.

2.—**Natal** is on the East Coast of Africa, and lies between the Drakensberg and the Indian Ocean. The capital is **Pietermaritzburg**.

(i) Vasco da Gama called the land "Natal," because he discovered it on Christmas Day, 1497. Natal is the Portuguese name for Christmas.

(ii) Natal was first colonised by Dutch farmers, who left Cape Colony in 1836 and following years. The heavy losses they had suffered from repeated Kafir incursions, together with the suppression of their language in the courts of justice, and the vexatious manner in which their slaves had been liberated, made them greatly dissatisfied with British rule. They left their old homes and travelled northward into the dim interior in search of freedom. Driven backward from the Vaal River by the famous Zulu Chief Moselekatsé, they crossed the Drakensberg into Natal, and in 1837 formed the "Republic of Natalia." The story of their sufferings, hardships, and heroic conflicts with Dingaan, Tshaka's successor, is a thrilling one. Sir George Napier, Governor of the Cape Colony, claimed them still as British subjects, and in 1843 Natal was declared British territory. In 1856 it was erected into a distinct and separate Colony. In 1902, Zululand and the South-east corner of the Transvaal were added to Natal.

3.—The **Orange River Colony** lies to the North of Cape Colony between the Orange and Vaal Rivers. The capital is **Bloemfontein**.

(i) When British sovereignty was proclaimed over Natal, many of the Dutch emigrant farmers in Natal re-crossed the Drakensberg range, and, uniting with others of their countrymen who had left the Cape Colony, settled down between the Orange and Vaal Rivers. In 1848 Sir Harry Smith proclaimed the Queen's authority over this country, which became known as the "Orange River Sovereignty." Subsequently, frequent disputes arose between the Dutch farmers and the Basutos about their boundary line, and in 1854 the British Government abandoned what seemed a worthless possession. The "Orange Free State Republic" was then established. Thirteen years later the discovery of diamonds at Kimberley imparted a wonderful impetus to its trade; and, aided by the prudent statesmanship of Sir John Brand, who was President of the Free State for 24 years, the country attained to a position of influence and wealth. In the year 1899 it joined the South African Republic in war against Great Britain. Its forces were defeated, and the country was annexed to the British Empire, and re-named the "Orange River Colony."

4.—The **Transvaal** lies between the Vaal and the Limpopo Rivers. The capital is **Pretoria**.

(i) The Transvaal is another State founded by the Dutch emigrant farmers who left the Cape Colony in 1836-8. After the country between the Vaal and the Orange Rivers had been declared British territory, the Dutch travelled northward under Pretorius, crossed the Vaal River, and established the "South African Republic." In 1852 their independence was recognised by the Sand River Convention. Financial difficulties and conflicts with the natives gradu-

ally embarrassed the new State, and in 1877 Sir Theophilus Shepstone annexed the country to the British Crown. For a time the new rule was accepted, but in 1880 the Boers took up arms against the British Government, and defeated British troops in several engagements. In 1881 the internal independence of the "South African Republic" was restored. Discoveries of gold and coal made it an exceedingly wealthy State. In 1899 it commenced war against Great Britain, invading Natal and Cape Colony. After a prolonged struggle, the Republican forces were defeated. The country lost its independence, and in 1900 was again proclaimed British territory and named the "Transvaal."

Lesson 2.—Countries, II.

1.—**Basutoland** is a British Crown Colony, situated between the Orange River Colony and Natal. It is inhabited by Basutos, or Mountain Bechuanas. The chief station is **Maseru**.

(i) In 1868 the Basutos, weary of a tedious war with the Free State, were, at their own request, accepted as British subjects. In 1871 their country was annexed to the Cape Colony. In 1879 the Cape Government attempted to disarm the native tribes, and almost the whole of the Basutos rose in arms. In 1884 Basutoland was separated from the Cape Colony and placed under the direct rule of the British Crown. The Imperial Commissioner resides at Maseru.

2.—**Bechuanaland** consists of the district annexed to the Cape Colony situated between Griqualand West and Molopo River, and a British Protectorate of the country situated between the Molopo River and the Zambesi, and between the Transvaal and 20° E. longitude.

(i) In 1863 frequent conflicts took place between the various tribes of Bechuanas, and between the Bechuanas and the Dutch, who formed two republics—Stellaland and Goshen. Sir Charles Warren entered Bechuanaland with 4,000 troops, restored order, and in 1885 it was annexed to the British Crown. In 1896 Bechuanaland, as far north as the Molopo River, was annexed to Cape Colony. The British Protectorate includes Khama's country.

3.—**Gazaland** extends along the eastern coast from Tongaland River to the Zambesi, and inland as far as the Lobombo Range. It is under Portuguese authority. The chief seaport is **Lourenço Marques**, on Delagoa Bay.

(i) The country is occupied by various tribes of Zulus. Outside the coast towns the authority of the Portuguese is merely nominal.

4.—**Southern Rhodesia** is a vast region stretching from the River Limpopo to the Zambesi, and from Gazaland to Bechuanaland, and is under British protection. It is gradually being occupied by Europeans. The chief native tribes are the **Matabele** and the **Mashona**. The capital is **Bulawayo**.

(i) In 1889 a Charter was granted by the British Government to the "British South Africa Company" to occupy and explore this extensive territory, which is rich in gold and other minerals.

5.—**Great Namaqualand, Damaraland, and Ovampoland** are situated on the West Coast of South Africa, north of the Orange River, and in 1884 were annexed to the German Empire.

(i) Namaqualand is occupied by Hottentots; Damaraland and Ovampoland by various Bantu tribes.

(ii) **Walfish (= Whale-fish) Bay** is the most important harbour on this part of the coast, and belongs to Cape Colony.

Lesson 3.—Cape Colony: Boundaries, Dimensions, etc.

1.—**Cape Colony** is bounded on the west by the Atlantic Ocean; on the south and east by the Indian Ocean; and on the north, for the most part, by the Orange River.

(i) Griqualand West and Bechuanaland are the only divisions north of the Orange River.

2.—Cape Colony lies between 28° and 35° S. latitude and 17° and 30° E. longitude.

(i) Capetown is situated on the 34th parallel of south latitude. This line passes through Monte Video, in South America, and Sydney, in New South Wales. The length of a degree of latitude is about $69\frac{1}{2}$ miles, so all these places are 2,360 miles from the Equator.

(ii) Capetown is situated in $18\frac{1}{2}^{\circ}$ E. longitude. Places eastward receive the sun's rays earlier than places westward. The sun's rays travel over the surface of the earth at the rate of one degree in four minutes. The value of $18\frac{1}{2}^{\circ}$ of longitude, in time, is thus seventy-four minutes. When it is twelve o'clock at Greenwich, in England, it is fourteen minutes past one at Capetown. East London is $9\frac{1}{2}^{\circ}$ to the east of Capetown, so that port has noon thirty-eight minutes before the Capital. In order to secure uniform time throughout the Cape Colony, clocks in all Government offices are now set according to the time of 30° E. longitude, or two hours before Greenwich time. When it is twelve o'clock at London, it is two o'clock throughout the Cape Colony.

3.—The **area** of Cape Colony is 277,000 square miles.

(i) It is more than twice the size of Great Britain and Ireland.

4.—The breadth of Cape Colony, measured from the Orange River mouth to the Umtamvuna River in the east, is 800 miles; and the length from the Molopo River to Cape Agulhas is about 500 miles.

5.—Cape Colony possesses an **even unbroken coast**, which is about 1,500 miles in length.

(i) England possesses 1 mile of coast to 29 miles of surface, whilst the Cape Colony has only 1 mile of coast to 170 miles of surface, or a sixth of what England has.

(ii) A smooth coast is unfavourable for trade. Cape Colony has only two land-locked harbours, Knysna and Saldanha Bay, and they are comparatively of little value. Knysna is not deep enough to admit large ships; Saldanha Bay has no supply of fresh water. Had Cape Colony possessed a navigable river like the Rhine or the Thames, or a harbour like Southampton, her history might have been a very different one.

Lesson 4.—Agulhas Bank and Current.

1.—The **Agulhas Bank** is a submarine shelf of rock and gravel thrust out from the immense base of South Africa.

(i) It is first met with about the mouth of the Bashee River. Opposite Algoa Bay it is 20 miles broad. At Mossel Bay it has widened to 70 miles. Off Cape Agulhas it shoots out abruptly to 140 miles in breadth. It then rapidly narrows, rounds the Cape, and dies away about Saldanha Bay.

(ii) From the coast to the southern edge of the Bank soundings can be obtained within 100 fathoms. Beyond that limit the floor of the sea suddenly plunges into great depths.

2.—The **Agulhas Bank** is rich in vegetation, and abounds in fish.

(i) Mullet, snoek, sole, kabeljaauw, two or three feet in length, and rock cod, are caught in large numbers. Sharks are not uncommon. Whales are occasionally caught. In the rocky pools along the coast may be seen crabs and prawns, and flower-like anemones of exquisite colours.

3.—The **Agulhas current** flows over the **Agulhas Bank** from east to west, at the rate of from one to three miles an hour, according as a south-east or south-west wind blows.

(i) A cold current from the South Pole creeps up the west coast of Australia and skirts the East Indian Archipelago. As it approaches the Equator it takes a westerly bend, and strikes right across the Indian Ocean. Under a tropical sun it is now a warm current.

(ii) When the current reaches Madagascar it divides and flows southward on both sides of the island. The two streams unite about the latitude of St. John's River mouth, and are then known as the **Agulhas Current**.

(iii) When the **Agulhas current** reaches Cape Point it meets the cold **West Wind Drift** from South America. One portion of the **Agulhas current** is forced into False Bay, making its waters as a rule 10° warmer than the waters of Table Bay, which is filled by the waters of the **West Drift** and is then driven back to Australia. This is known as the "**Agulhas Counter-Current**." Another portion joins the **West Drift** and travels along the west coast to the Equator.

(iv) From Sunday River to False Bay pieces of pumice-stone are occasionally found washed up on the shore. Where do these fragments come from? Can they come from the volcanoes of the Sunda Islands? Trace on a map the course along which these volcanic fragments are probably carried.

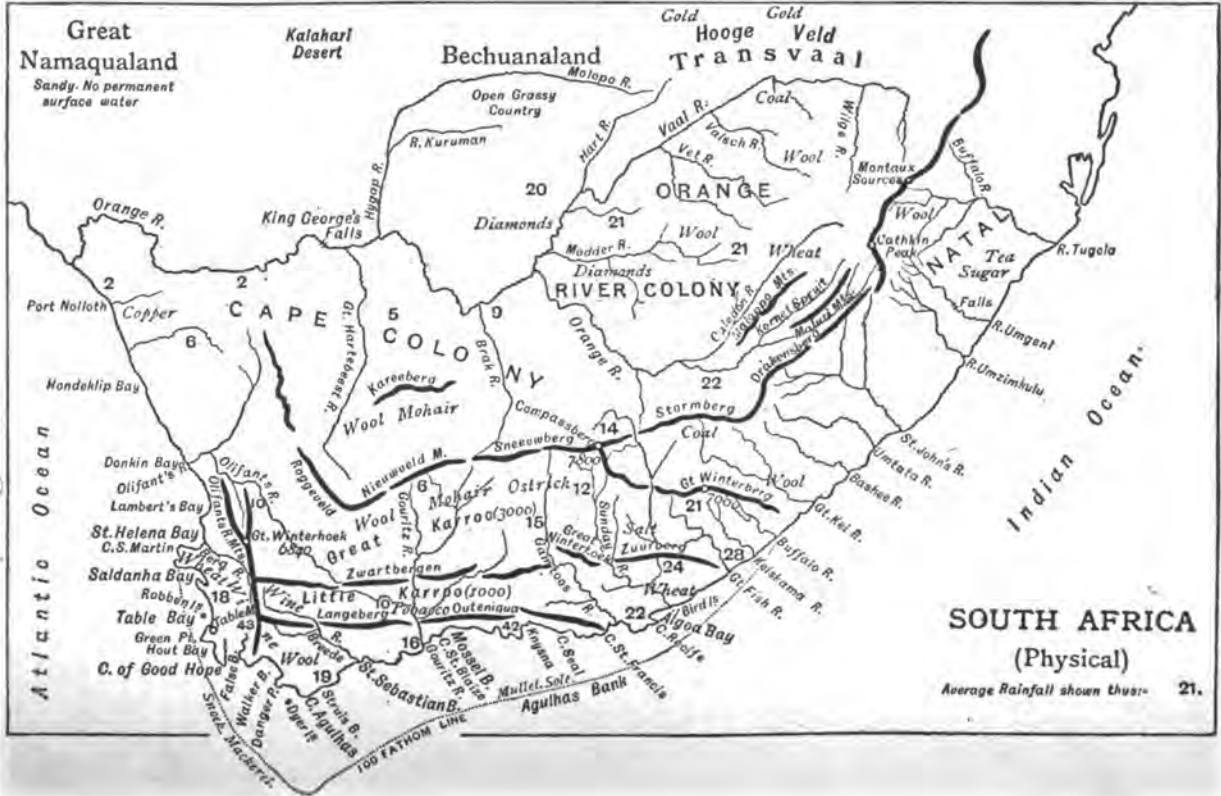
Great Namaqualand

Sandy. No permanent surface water

Kalahari Desert

Bechuanaland

Gold Hooge Veld
Transvaal



SOUTH AFRICA
(Physical)

Average Rainfall shown thus: 21.

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Lesson 5.—Openings in the Coast.

1.—The Atlantic coast of the Colony consists of long stretches of white sand, except at St. Helena and Saldanha Bays. From Cape Point to Cape Recife the coast is generally bold and rocky, with dangerous reefs extending far into the sea, on which many a gallant ship has been wrecked. From Algoa Bay to the Keiskama the shore is low, sandy and uninteresting. Thence northwards to Natal, the coast consists of rolling, grass-covered hills, dotted with trees.



DOCKS AND SHIPPING, TABLE BAY.

2.—The chief openings on the West Coast are the **Orange River Mouth**, **Port Nolloth**, **Hondeklip Bay**, **Donkin Bay**, **Lambert's Bay**, **St. Helena Bay**, **Saldanha Bay**, **Table Bay**, and **Hout Bay**.

(i) At **Port Nolloth** ships of small tonnage load up copper from the O'okiep mine, 90 miles inland.

(ii) **Hondeklip** (= Dog-Rock) **Bay** derives its name from a rock which bears some resemblance to a crouching dog, and which is seen to the right as the harbour is entered. The place contains a few houses.

(iii) **Saldanha Bay**, named after Antonio de Saldanha, a Portuguese navigator (1508), was once the naval station of the Dutch. Here the Dutch fleet, under Admiral Lucas, surrendered to the British in 1796. The Bay is sheltered from

all winds, and is large enough to hold the whole British Navy, but there is no fresh water in the vicinity. All is desolation.

(iv) **Table Bay** is the most important harbour on the west coast. It is protected from the destructive north-west winds by a breakwater, and it possesses docks for the reception of ships, as well as a graving dock for laying up vessels for examination and repair. The Suez Canal has done much to lessen the importance of the port. From London to Bombay round the Cape is 12,000 miles, but through the Canal the distance is only 7,000 miles. In time of European war, involving probably the closure of the Canal, the Cape would still be of great value to England as affording protection to the alternative route to India. The glory of Table Bay is Table Mountain, 3,850 feet high, with its majestic flat summit two miles long and its seamed sides draped in green and brown; and the glory of Table Mountain is the "Table Cloth," which is caused by the greater coldness of the air at that high level, so that the moisture brought up by the south-easter is condensed into a thick mist. In summer the mist descends the northern face of the mountain in soft folds, a perfect "Niagara of vapour," and a thousand feet below vanishes before the increasing heat.

(v) **Hout (= Wood) Bay** was formerly used by the Dutch as an anchorage; and their old forts still remain.

3.—The chief openings on the South Coast are **False Bay**, with **Simon's Bay**, and **Kalk (= Lime) Bay**, **Walker Bay**, **Struis (= Ostrich) Bay**, **St. Sebastian Bay**, **Mossel Bay**, **Knysna (= Fern) Harbour**, **Plettenberg Bay**, **St. Franel's Bay**, and **Algoa Bay (= Bay of the Lagoon)**.

(i) **False Bay** is a spacious inlet 16 miles broad and 18 miles long, and is famous for the beauty of its scenery. On the western side of it, in a nook, sheltered from south-easterly gales, is Simon's Bay, named after Simon van der Stel. Here is the British Naval Station in South Africa.

(ii) **Mossel Bay** received its name from Van Caerden, a Dutch navigator who called here in 1601, and could find no other provisions but mussels. Oysters are also obtained in the Bay. This is the port for the Midland divisions.

(iii) **Knysna Harbour** is entered by an opening 150 yards wide between high cliffs. Inside is a beautiful land-locked harbour, but nowhere deeper than 12 feet. Small vessels load up timber cut in the neighbouring forests, and coasting steamers regularly visit the port.

(iv) **Algoa Bay** is the busiest port in Cape Colony. The anchorage is good, and is protected from north-west winds, but is exposed to the full force of south-eastern gales, which have sometimes inflicted heavy losses on the shipping. The Bay generally presents a busy scene, and the loading and unloading of vessels are carried on by means of large lighters that ply between the shipping and the jetties, which are fitted up with powerful hydraulic cranes.

4.—The chief openings on the East Coast are **Port Alfred**, **East London**, and the **Mouth of St. John's River**.

(i) **Port Alfred** is situated at the mouth of the river Kowie, and is named after the second son of Queen Victoria. Small craft can ascend the river for three or four miles.

(ii) The mouth of the **Buffalo River** is being deepened by extensive harbour works and persistent dredging, and there is a prospect that in a short time all

sea-going steamers may be able to cross the bar and anchor in the river, where there is perfect shelter for ships. **East London** is situated at its mouth.

(iii) **St. John's River Mouth** is deep enough to admit small vessels, and is the port of Pondoland.

Lesson 6.—Capes.

1.—The principal Capes on the West Coast are **Cape Voltas** (= turns, changes of wind), **Cape St. Martin**, **Point Paternoster**, **Green Point**, and **Cape of Good Hope**, now usually called **Cape Point**.

(i) **Bartholomew Dias** called the southern headland the "Cape of Storms." As if to vindicate its ill-omened name, a violent storm overtook **Dias's** vessel when on a voyage to India in the year 1500; and he and all on board perished. **Cape Point** is now crowned by a lighthouse, built 840 feet above sea-level, one of the highest lighthouses in the world.

2.—The principal Capes on the South Coast are **Hangklip**, **Danger Point**, **Quoin Point**, **Cape Agulhas**, **Cape Infanta**, **Cape St. Blaize**, **Cape Seal**, **Cape St. Francis**, **Cape Recife**, and **Woody Cape**.

(i) **Hangklip** (= Overhanging rock) is 1,450 feet high, and is the termination of the **Hottentot's Holland Mountains**.

(ii) **Danger Point** is an ugly ridge of rock that stretches out $4\frac{1}{2}$ miles to sea, and has well earned its disastrous name. The *Birkenhead*, a troop-ship, was lost here in 1852, and 440 English officers, soldiers, and sailors were drowned after furnishing a splendid example of heroism and self-denial.

(iii) On **Quoin Point** the *Teuton* struck in 1881, and smashed in her central compartments. Trusting to the water-tight bulkheads, the Captain steamed back to **Simon's Bay**; but when off **Danger Point** the vessel suddenly sank, and nearly all on board perished.

(iv) **Agulhas**, i.e., "Needle" Cape. This is the most southerly point of Africa, and off it the waves are generally high and wild, caused partly by the cross-seas where the **Agulhas current** and **West Wind Drift** strike against each other, and partly by the south-easters, which are the prevailing winds.

(v) **Cape Recife** sends a dangerous reef far out to sea; and on or near it many a ship has been lost, despite the warning of the lighthouse on the cliff.

(vi) **Woody Cape** is the easternmost point of **Algoa Bay**, as **Cape Recife** is the most western, the distance between the two capes being thirty miles.

3.—The principal Capes on the East Coast are **Cape Padrone** and **Cape Morgan**.

Lesson 7.—Islands.

1.—**Islands** are generally detached fragments of the neighbouring land. The softer rocks that connected them with the mainland have been worn away by the constant wash of the waves. Islands generally partake of the character of the land to which they formerly belonged. If that is high and rocky, they are rocky. If it is low and sandy, they are sandy.

(i) Countries with unbroken, monotonous coasts are poor in islands. South Africa is not an exception.

2.—The chief islands on the West Coast are **Ichaboe** and **Possession**, off the coast of Great Namaqualand ; **Berg Island**, opposite Saldanha Bay ; **Marcus Island**, in Saldanha Bay ; **Malagas**, off Malmesbury ; **Dassen Island**, between Saldanha and Table Bays ; and **Robben Island**, in Table Bay.



SEAL.



PENGUIN.

(i) All these islands, except Robben Island, are uninhabited except by penguins and seals.

(ii) **Dassen Island** when discovered abounded with Dassies, the *Hyrax Capensis*, a kind of coney.

(iii) **Ichaboe** and **Possession** have guano deposits. They lie in that belt where rain seldom falls. The guano islands off Peru are in the same belt.

(iv) **Robben (= Seal) Island**, two miles in length, serves as a sort of breakwater to Table Bay and is used as an asylum for lunatics and lepers.

3.—The chief islands on the South Coast are **Dyer Island**, off Caledon ; **St. Croix** and **Bird Islands**, in Algoa Bay.

(i) On **St. Croix** (*San Crouah* = Holy Cross) Bartholomew Dias landed in 1486, and there erected a stone cross in thankful acknowledgment of his deliverance from the storm which had driven him past the Cape.

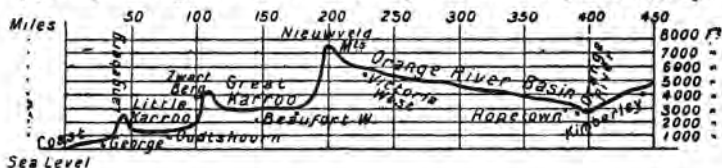
(ii) The **Bird Islands** are a group of rocks at the eastern entrance to Algoa Bay. They are inhabited by thousands of penguins, and at certain seasons the ground is thickly strewn with eggs. A few shiploads of guano are obtained each year. On one of the islands the *Doddington* was wrecked in the year 1754.

Lesson 8.—Mountains.

1.—Cape Colony rises from the sea in a series of terraces or plateaux, which are separated from each other by ranges of mountains that, for the most part, run parallel to the coast, and increase in height towards the interior.

(i) The mountains form the buttresses of the terraces. When you have climbed up the seaward slope of the mountains and reached the crest or ridge, you will find that there is little descent on the other side. Each mountain range is the turned-up edge of the plateau above.

(ii) The following is a section of the Colony from Mossel Bay to Kimberley:—



2.—The chief mountain ranges are the **Coast Chain**, the **Karoo Chain**, the **Great Inland Chain**, and the **South-Eastern Chain**.

(i) The seaward slopes are not only the steeper, but are generally clothed with a rich forest vegetation.

3.—The **Coast Chain** is composed first of the **Olifant's River Mountains**, the **Cedar Berg**, the **Drakenstein**, and **Hottentot's Holland Mountains**. These run from north to south. The chain then sharply turns to the east, and continues as the **Zonder Einde** (= **Endless**), the **Langeberg**, the **Outeniqua**, and the **Tsitzikama** or **Longkloof Mountains**, and ends at Cape St. Francis.

(i) The **Cedar Berg** range is so called from the valuable cedar trees that once abounded in its kloofs. In quality the wood is equal to that of the famous Cedars of Lebanon; but fire and axe have left very few specimens of this noble tree.

(ii) The **Olifant's** (= **Elephant**) **River Mountains** reach the highest point in the Great Winterhoek, 6,840 feet.

(iii) The **Drakenstein** (= **Dragon-stone**) **Mountains** are indented with countless glens and ravines clothed with luxuriant vegetation. "Here a peak, there a cairn, and then some sweeping hollow, like the spires, the domes, and the streets of a great city."

(iv) The **Outeniqua** form a long line running parallel with the coast. They resemble the lower Pyrenees in that it is impossible to say where one mountain ends and another begins, and like them they are covered with vegetation of a dark green colour. The **Outeniqua** were a tribe of **Hottentots** that pastured their cattle on this range. "Qua" is the masculine plural ending, as in **Griqua** and **Namaqua**.

4.—The **Karoo Chain** consists of the **Keeromberg**, **Little Zwartberg** (= **Black Mountain**), **Great Zwartberg**, **Great Winterhoek** (= **Winter-corner**), and the **Zuurberg** (= **Sour Mountain**), and it ends beyond **Grahamstown**, near to the **Great Fish River**.

(i) The highest point in the **Karoo Chain** is the **Cockscomb**, in the **Uitenhage** division, 5,967 feet high.

5.—The **Great Inland Chain** sweeps across the Colony from west to east in a gigantic curve. It includes the **Kamiesberg**, the **Bokkeveld** (= **Buck-veld**), the **Roggeveld** (= **Rye-veld**), the **Nieuwveld** (= **Newveld**) **Mountains**, the **Sneeuwberg** (= **Snow Mountain**), the **Stormberg**, and the **Drakensberg** (= **Dragon Mountain**) or **Kahlamba** (= **Tossed down in jagged peaks**) **Mountains**.

(i) This chain forms the great watershed of the Colony. The drainage on one side runs northward to the **Orange River**, and on the other flows southward to the **Indian Ocean**. The highest point is **Compassberg**, 7,800 feet high.

(ii) The drive through the **Stormberg** is very fine; but the mountains are without timber or water. It is the bleak wildness of the place which gives it such sublimity. This is the character of the greater part of the **Inland Chain**. In the **Stormberg** are the only coal-fields the Colony at present possesses.

(iii) The **Drakensberg** rises from the **Stormberg**, and passes between **Basutoland** and the **Transkei** and **Natal**.

6.—The **South-Eastern Chain** branches out from the **Compassberg**, and is continued in an irregular line as the **Tandtjesberg** (= Little Tooth), the **Zwagershoek** (= Brother-in-law's Corner) Mountains, in the direction of Somerset East. It then joins on to the **Great Winterberg**, 7,000 feet high, and is thence continued as the **Katberg** and the **Amatolas** (= Calves) to near King Williamstown.

(i) From the summit of these ridges a magnificent view can be obtained of the grassy hills and dales, the dense bush and gorges of the Eastern Frontier.

(ii) The Amatolas were the fastnesses of the Amaxosa Kafirs from which they made raids on the Colony, and from which they were driven out in 1852.



PANORAMA OF CAPE TOWN (TABLE CLOTH ON TABLE MOUNTAIN).

7.—The highest mountain in Cape Colony is **Hawk's Head** in the Barkly East division, 9,300 feet high.

(i) **Compassberg** was formerly believed to be the highest mountain in Cape Colony, but that is fifteen hundred feet lower.

8.—Outlying mountains are **Table Mountain**, at Cape Town, **Riebeeck's Kasteel** (after the first Dutch commander), near the Berg River, and **Kareeberg** (= Karee Tree Mountain), in the division of Carnarvon.

(i) **Table Mountain** is flat-topped, which is characteristic of many mountains in Cape Colony. This arises from the fact that the ranges of South Africa have not been thrust up by volcanic force, as have been the Alps and the Pyrenees, but have been chiselled out by water and weather.

(ii) Though every winter snow is seen on the tops of the mountains, none of them rise above the snow-line, which is one cause of the intermittent nature of our rivers. If fed by glaciers, rivers flow all the year through, being larger in summer than in winter, as the glaciers then melt more rapidly.

(iii) Generally, the mountains are bare to the scorching sun, and seamed by the heavy rains which often descend in violent thunderstorms and wash off the little soil on the hillsides.

Lesson 9.—Plains.

1.—Cape Colony is a land of high plains. They rise in steps from the sea to the Great Karroo, which is a portion of the larger table-land extending to South Central Africa.

2.—The first plain is the **Little Karroo**.

(i) **Karoo** is the Hottentot word for "dry."

(ii) The **Little Karroo** is a long, narrow plateau lying between the Karroo and Coast chains at an altitude of about 1,000 feet above the sea. It is never more than 50 miles wide, and is about 200 miles in length. It was early occupied by Dutch settlers, and enjoying a moderate rainfall, abounds in vineyards, ostrich camps and tobacco fields. Here stand the towns of Worcester, Robertson, Oudtshoorn, and Uniondale.

3.—The second plain is the **Great Karroo**.

(i) The **Great Karroo** lies between the Karroo Chain and the Great Inland Chain, and is about 3,000 feet above sea-level. It is 300 miles long, from 70 to 80 miles broad, and is about two-thirds the size of Scotland. Rain seldom falls, and the air is dry. Springs are rare, and the river beds are bare except after thunderstorms: then the rivers suddenly rise and rush in torrents to the sea. "There is not a blade of grass to be seen. The red sand is covered with bushes a few inches high, clothed with small hard leaves of a dull olive-green. Far in the distance are solitary flat-topped mountains, while nearer at hand are small conical hillocks, made of iron-stones, piled regularly on one another. Every fifteen or twenty miles you may come upon a farmstead. The house, a small white speck in the vast landscape, lies at the foot of a range of hills, or a 'kopje,' with the sheep kraals on the slope behind it. Sometimes there is a garden before the house, containing fruit trees, and there is a dam with willow trees planted beside it." The chief towns are Beaufort West, Willowmore, Graaff-Reinet and Somerset East.

4.—The third plain is the **Basin of the Orange River** on the left bank.

(i) Beyond the Great Inland Chain the surface of the country falls away to the Orange River by a long and gradual slope. It is a vast area of desolate treeless land, with here and there low flat-topped hills and ant-heaps, and has in parts an elevation of from 3,000 to 4,000 feet. The herbage consists principally of the useful Karroo bushes. Less than fifty years ago these plains were alive with game. Spring-bucks, zebras, and ostriches roamed in thousands. Now they have been almost exterminated, and in their stead are the less picturesque but more useful flocks of the merino sheep and the angora goat. As the traveller moves over these great plains he frequently sees in hot weather the effects of the mirage. Islands, lakes, domes, and palm-trees gleam before the eye, and then slowly disappear as the sun declines toward the west. The principal towns are Carnarvon, Richmond, Colesberg and Burghersdorp.

Lesson 10.—Rivers, I.

1.—Cape Colony might be supposed to be a well-watered country. Streams cross it in every direction. The river mouths

are somewhat regularly distributed along the coast. But these advantages are apparent only. Cape Colony is a country of dry heat.

(i) Grahamstown has as heavy an annual rainfall as Cambridge, in England; but then Cambridge has 170 rainy days in the year, whilst Grahamstown has only 70 rainy days. English rains are light and frequent. Cape rains are uncertain and heavy. After such rains the rivers roll in a flood to the sea; but when the flood has passed, the rivers for weeks and months are little more than a series of stagnant pools, commonly called "Zeekoegats," or hippopotamus holes. They contain few fish to reward the zeal of the patient angler.

2.—The sources of most of our rivers lie in regions of little rainfall.

(i) Port Elizabeth, near the mouth of Sunday River, receives 22 inches of rain in a year; Graaff-Reinet, near its source, has only 13 inches in the same period. Mossel Bay, not far from the mouth of the Gouritz River, has an annual rainfall of 18 inches; but at Beaufort West, where it rises, there are only 8 inches in a year. The result is that most Cape rivers receive at their sources little supply of water except from thunderstorms, which, of course, are only occasional.

3.—The rivers of Cape Colony cut their way through the edges of the table-lands in deep gorges, known as "poorts" or gates.

(i) Compare with the rivers of Spain, which rise, like ours, in a dry interior table-land, but run along the valleys between the mountains. Our rivers cut through the mountains, and run for the most part in deep "kloofs," and abound in rapids. They are therefore unsuitable for ships.

4.—The rivers, when in flood, plough their way through the surface soil down to the bed-rock. They run from 20 to 30 feet below the surface of the adjacent land in deep water-worn channels.

(i) The result is, that there are few towns on the banks of South African rivers, and the streams are of little use either for irrigating cultivated lands or for driving machinery.

5.—Most of the rivers are blocked at their mouths by a heavy "bar" of sand.

(i) The tides on our coast do not exceed four feet, so there is no strong current set in motion each day by which the mouths of our rivers might be scoured of the sediment brought down from the hills. Compare this with the Avon at Bristol, where, owing to the narrow channel, the tide rises thirty feet.

(ii) Frequent periods of drought, stopping the river's flow, and winds blowing off the sea on to the land the greater part of the year, assist to block up the mouths of the river with sand.

Lesson II.—Rivers, II.

1.—The longest river in Cape Colony is the **Orange River**. It is more than 1,000 miles long. It rises in the **Mont-aux-Sources** in the **Drakensberg**, and flows right across the continent to the west. It drains an immense tract of country—from the **Kalahari** and the slopes of the **Magaliesberg** in the north, to the **Stormberg**, **Sneeuwberg** and **Nieuwveld Mountains** in the south—a region twice the size of France, or about 400,000 square miles.

(i) The **Orange River** (named in honour of the Prince of Orange), as it flows through **Basutoland**, is joined by the **Kornet Spruit**. Near to **Aliwal North** it receives the waters of the **Kraai (Crow) River**. Not far from **Bethulie** it is joined by the **Caledon**. On the borders of **Griqualand West**, the famous diamond-bearing region, it receives the waters of the **Vaal (Yellowish-brown)**, with its tributaries, the **Hart** and the **Modder (Mud)**. After being joined by the **Hygap** on the one side, and by the **Hartebeeste** on the other, it plunges over **King George's Falls**, 400 feet high, and then rushes with terrific force through a narrow gorge, two miles in length. Before the river reaches the sea it takes a great bend to the north, and flows between steep and inaccessible walls of rock. For the last 300 miles of its course, the **Orange River** traverses one of the most barren and rugged regions on the face of the earth. Finally it enters the **Atlantic Ocean** "barred" by sand for four miles out to sea, and lessened in volume by the hot air of the desert through which it has flowed. Great as the river is, it is of little use either to the navigator or the farmer.

2.—The smaller rivers that flow into the **Atlantic Ocean** are the **Olifant's**, the **Great Berg**, and the **Salt**.

(i) **Olifant's (=Elephant) River** rises amid the lofty peaks of the **Great Winterhoek**, and for eighty miles runs through a narrow valley between the **Olifant's River Mountains** and the **Cedar Berg**. In its lower course the valley widens, and on the banks of the river heavy crops of wheat are grown.

(ii) The **Berg (=Mountain) River** rises in **Fransche Hoek**, the home of the **Huguenots**, and falls into **St. Helena Bay**. It runs through a country rich in corn and wine. In this stream the last hippopotamus in the west was killed in 1857; and his remains now grace the **Cape Town Museum**.

(iii) The **Salt River** has its source near **Riebeeck's Castle**, flows through **Malmesbury**, and enters the sea at **Table Bay**. Near its mouth, in 1773, the **Yonge Thomas** was wrecked. A dairyman, **Wolraad Woltemaade**, mounted on a powerful horse, heroically dashed through the roaring surf and brought fourteen sailors from the ship to the land, when he was swept away by the current, and rider and horse perished.

3.—The principal southern rivers are the **Breede**, the **Gouritz**, and the **Gamtoos**.

(i) The **Breede (=Broad) River** rises in the warm **Bokkeveld**, and both it and its tributary, the **Zonder Einde (=Endless)** most nearly resemble English rivers. Cutters of 150 tons can ascend the **Breede** for 20 miles. **Ceres**, **Worcester**, and **Swellendam** are on or near its banks. It enters the sea near **Port Beaufort**.

(ii) The **Gouritz** rises near Beaufort West. Its chief tributaries are the **Gamka**, **Dwyka**, and **Olifant's Rivers**. It makes its way through the Zwartberg by gorges of the wildest character.

(iii) The **Gamtoos** rises in the Sneeuwberg. At its source it is called the **Kareiga**; as it approaches the Winterhoek it is called the **Groot** (=Great) **River**. From the Winterhoek it is known as the **Gamtoos**. It is liable to sudden floods when storms break on the Great Karroo, and enters St. Francis Bay near Humansdorp.

4.—Two rivers fall into Algoa Bay, the **Zwartkops** and the **Sunday**.

(i) The **Zwartkops** (=Black hillocks) has its source in the Winterhoek Mountains, and flows through Uitenhage, supplying the wool-washers with the water necessary for their work. Its lower reaches are favourite resorts of the inhabitants of Port Elizabeth for yachting and fishing.

(ii) The **Sunday River** rises near the Compassberg. It flows through Graaff-Reinet and Jansenville, and then forces its way through the defiles of the Zuurberg to the sea.

5.—The chief rivers on the east coast are the **Bushman's**, **Kowie**, **Great Fish**, **Keiskama**, **Buffalo**, **Great Kei**, **Bashee**, **Umtata**, and **St. John's**.

(i) The **Kowie** has its head springs above Grahamstown, and falls into the Indian Ocean at Port Alfred, where it opens into a broad tidal estuary, fringed with wooded hills, and affords very pleasant boating.

(ii) The **Great Fish River** rises in the Sneeuwberg. In its upper course it receives the waters of the **Tarka**, **Little Fish**, **Brak** (=Salt), and **Doorn** (=Thorn) **Rivers**, and lower down it is joined by the **Koonap** and the **Kat**. **Cradock**, **Somerset East**, and **Fort Beaufort** are situated on the main stream or its affluents. The **Great Fish River** is remarkable for the rapidity with which it rises after heavy rains. The flood sometimes comes down 25 or 30 feet in height.

(iii) The **Keiskama** (=Sweet-water) has its source in the Amatola Mountains. Its chief tributary is the **Tyumie**, a stream remarkable for its clear, sweet waters.

(iv) The **Buffalo** rises in the eastern slopes of the Amatolas in very beautiful scenery. Its fine estuary forms the harbour of East London.

(v) The **Kei** rises in the Stormberg, and is the boundary line between Cape Colony and that portion of Kafirland called "The Transkei." Its chief tributaries are the **White Kei**, the **Indwe**, and the **Tsomo**, a rapid and dangerous river.

(vi) **St. John's River** rises in the Drakensberg, and flows through a rich pastoral country. On its feeder, the **Tsitsa**, are the famous falls, 575 feet in height. About a mile from the sea, the river flows through a gap that looks as though a Table Mountain had been cleft to its base, making a channel for the stream. This is the well-known "Gates of St. John's."

Lesson 12.—Climate.

1.—Cape Colony is a country of dry heat, moderated by southerly winds.

(i) Cornwall has a mean temperature of 61°. Cape Colony, which lies a thousand miles nearer the Equator, has a mean temperature of 62°. But in the West of England, the winds, two days out of three, blow from the south-west, off warm seas. The prevailing winds in Cape Colony are southerly, and come off the cold seas of the Antarctic Region. Then the slope of the land, south of the Great Inland Chain, is towards the South Pole, and away from the sun.

2.—Cape Colony possesses three prominent varieties of climate—the **Coast**, the **Midland**, and **Upper Karroo** Climates.

(i) The **Coast Climate** prevails for about 20 or 30 miles inland. The heat of summer and the cold of winter are modified by nearness to the sea. Snow is rarely seen. Rains are frequent. Wheat, barley, and oats are grown without irrigation. The grass is sour.

(ii) The **Midland Climate** is found for the most part in the plateau of the Little Karroo and about Somerset East and Bedford. The air is drier. There is a greater range of temperature; the days are warmer, and the nights are colder. The herbage is sweet grass or alkaline bush.

(iii) The **Upper Karroo Climate** prevails over the Great Karroo, and the greater portion of the Basin of the Orange River. The air is drier still, but remarkably clear and bracing, and is without a rival for all diseases of the lungs. Rain falls only at long intervals. Droughts are not infrequent. The thermometer will range, within twenty-four hours, from 35° at night to 95° at midday in the shade. Occasionally in summer, north-west winds blow that feel as if they came out of an oven, and bring clouds of red dust. Such winds are often followed by violent thunderstorms, which in a few hours cover the veld with temporary lakes.

3.—Towards the interior the climate of Cape Colony becomes drier and drier. The western portion of the Orange River Basin is the driest of all. The eastern districts of the Colony are well watered.

(i) It is unfortunate that the mountain ranges which act as condensers lie near the coast, and extract the moisture brought up by the southern winds before they reach the interior. When the winds have passed the mountains they are almost dry, and can give little rain.

(ii) The heaviest rainfall is in the vicinity of mountains and near the coast. Table Mountain and Great Winterhoek in the west, the Outeniquas in the south, and Great Winterberg in the east, receive from 30 to 40 inches of rain in a year. **Wynberg**, at the back of Table Mountain, has 35 inches of rain annually.

(iii) The coast belt from Malmesbury to Port Elizabeth, with all the districts to the east of an irregular line drawn from Grahamstown to Somerset East, then northward to Kimberley and Mafeking, enjoy a moderate annual rainfall of from 18 to 30 inches. **Port Elizabeth** and **Aliwal North** receive 22 inches of rain in a year.

(iv) The Great and Little Karroo, and the Orange River Basin from Colesberg to Kheis, receive not more than from 6 to 18 inches of rain in a year. **Victoria West** has 8 inches of rain annually.

(v) The western portion of the Orange River Basin, from Kenhardt to the sea, possesses a remarkably dry climate, the annual rainfall being under 6 inches. **Pella** has not more than 2 inches of rain in a year.

4.—Cape Colony has one of the healthiest climates in the world.

(i) Ague and yellow fever are unknown. Lung diseases are rare, and visitors suffering from consumption often recover in the dry air of the interior. There is no winter or frost to interrupt out-door labour, or to make it necessary to "shed" horses or cattle. Fogs are unknown, and fine, sunny days are the rule. The soft air, the blue skies, the radiant sunshine, the starry nights, make Cape Colony a country in which simply to breathe is, for nine months out of twelve, a delight.

5.—The rainy seasons follow the prevailing winds, which partake of the character of **monsoons**.

(i) The seasons are not so clearly defined as in Europe, and occur at opposite periods of the year. Our hottest months are from December to March; our coldest from June to August.

(ii) In the summer the **South-east trades** bring rain to the eastern portions of the Colony, but in the west, at Capetown, a south-easter is generally a clear, dry wind, and is known as the "Cape Doctor." In the winter, when the sun has crossed the Equator into the northern hemisphere, the **Return-trades**, the north-west winds, which follow the northing sun, and come off warm seas, bring rain to the western portions of the Colony, but in the east these winds, coming over the Kalahari and the Orange River Basin, are hot and dry, and feel sometimes as if they came from an oven. The Return-trade starts from the Equator as an upper wind, and does not strike the coast higher than Olifant's River. Hence Namaqualand is left rainless and barren.

Lesson 13.—Industries.

1.—Cape Colony is chiefly a **pastoral country** with limited agricultural facilities, and with very few manufactures.

(i) Only one acre out of 120 acres is cultivated.

(ii) There is not a single grain or edible fruit of any commercial importance which is native to the Cape Colony. Wheat, barley, and oats; onions, peas, and beans; apples, pears, and peaches; came originally from Asia; maize, or mealies, came from North America; and the vine from France and Germany.

(iii) **Tanning** is carried on at Capetown, Port Elizabeth, Wellington, and Grahamstown. The bark of the Mimosa is found to be an excellent substitute for oak.

(iv) **Wine** and **Brandy** are produced in the Cape, Paarl, Stellenbosch, Worcester and Oudtshoorn districts.

(v) **Boots** and **Shoes**, especially those called Veld-shoes, are manufactured at Wellington and Port Elizabeth.

(vi) **Soap** and **Candles** are made at Port Elizabeth, Grahamstown, and King-Williamstown.

(vii) **Wagon-making** is carried on at Grahamstown, Paarl, Worcester, and in most towns where wood can be obtained at reasonable rates.

(viii) **Jams** and **Confectionery** are manufactured at Capetown, Port Elizabeth and Grahamstown.

2.—The principal **grain districts** are the Cape, Malmesbury, Alexandria, Peddie, and Basutoland.

(i) Wheat, maize (mealies), barley and oats are the chief cereals. Maize is grown all over the country. The sowing season is from April to July, according to the rainfall, and harvesting is carried on from October to December. The yield of grain at present is insufficient for the wants of the people, and every year quantities of wheat and flour are imported, chiefly from Australia. The uncertainty of rain, poor soil, and the costliness of artificial manures assist to keep agriculture in a primitive condition.

3.—The chief **wine districts** are the **Paarl, Stellenbosch, Worcester, and the Cape.**

(i) In these districts settled the Huguenots, who brought from France the art of wine-making.



AN OSTRICH FARM.

(ii) The best vineyards are those of Constantia, some of which were laid out by Simon van der Stel, and are situated on a soil containing decomposed granite. Efforts are being made to improve the quality of Cape wines.

(iii) A bed of marl called the "Kalk Bank" extends through Worcester, Robertson, and Oudtshoorn, on which the vine is found to flourish and yield excellent results.

4.—**Tobacco** is grown largely in the **Oudtshoorn Valley** and along the **Kat River.**

(i) Tobacco has been grown at Oudtshoorn on the same soil for a hundred years without any deterioration.

5.—The principal **pastoral pursuits** are **Cattle, Sheep, Ostrich, and Goat Farming.**

(i) There are 2,200,000 cattle in the Colony, a fourth of which are used for draught purposes. Butter is made, and a little cheese.

(ii) There are 13,000,000 merino sheep in the Colony. The fleece is famous for its soft and lustrous fibre. The finest sheep-runs are in Bredasdorp and Caledon, the Great Karroo, Queenstown, Cathcart, Tarkastad, Barkly East, and Transkei districts. At one time scab and the *Xanthium Spinosum* (burrweed) were allowed to deteriorate the quality of the wool; but increased attention is now given to the dipping of sheep and the fencing of farms, and the condition of this important industry is being improved.

(iii) The domestication of the ostrich commenced in 1865. It thrives on the coast, and on the Little and Great Karroo. "Cape farmers buy and sell ostriches as they do sheep, fence their flocks in, grow crops for them, study their habits, and cut their feathers, as matters of business." The "plumes" are cut from the wings. The cock ostrich is savage only at nesting time, and kicks forward with tremendous force. The hen lays from 12 to 20 eggs in a rudely-made hollow in the ground, and sits upon them by day, the cock-bird taking charge of them at night. The chicks at first are very delicate; cold winds and rain are fatal to them; but fed upon lucerne, grain, and crushed bones, they grow rapidly, and become very hardy.

(iv) The **Angora Goat** thrives best on Karroo pasture. It was, originally, a native of Angora, a mountainous district in the interior of Asia Minor, and was introduced into the Colony in 1854. The hair, called Mohair, is famous for its long silky texture; and there is reason to expect that this may become the peculiar speciality of South Africa. The Colony contains 3,000,000 Angora Goats.

6.—The most important mineral industry is **Diamond Mining**.

(i) The first diamond was found by John O'Reilly in 1867, in the possession of the family of a Dutch farmer named Niekerk, who lived near the Orange River. It was used as a toy by the children in their games. O'Reilly sent it to Dr. Atherstone, of Grahamstown, to be tested. It proved to be a diamond; and was sold to Sir Philip Wodehouse for £500. Four diamond mines were discovered in Griqualand West: Kimberley, De Beers, Dutoitspan, and Bultfontein. There are also "diggings" on the Vaal River, but the yield is small. See Lesson 31.

7.—Cape Colony possesses valuable deposits of **Coal and Copper and Salt**.

(i) Wood is the chief fuel. In the Karroo, sheep-dung cakes are used.

(ii) **Coal** is found in the Stormberg range, at **Indwe** and at **Molteno**. At both places the seams are followed by tunnelling into the hillside. For heating purposes one ton of English coal is equal to one ton and a half of Colonial coal.

(iii) **Copper** is found in Namaqualand. The chief mine is at O'okiep. The ore is shipped at Port Nolloth.

(iv) **Salt-pans** are found throughout the Colony; but the most valuable are in the Malmesbury and Uitenhage divisions. From the latter, 35,000 bags of salt are taken each year, and the yield seems inexhaustible.

8.—**Wood-cutting** is carried on in the Knysna, Alexandria, and Pirie forests.

(i) South Africa is deficient in forests. Only 550 square miles are covered with timber-producing trees.

(ii) Nearly all the native woods are hard and well adapted to resist the dry heat of the Colony without warping. The most useful varieties are stink-wood, iron-wood, and assagai-wood, used in waggon-making; sneeze-wood, and olive-wood, are used for upright posts in fencing, as less liable than most woods to rot; and yellow wood when creosoted is employed for railway sleepers.

9.—**Fishing** is carried on principally by the Malay population.

(i) At Capetown large quantities of Cape lobster are tinned and sent abroad. The soles caught in Algoa Bay are excellent. The coast waters abound in fish, and the fishing industry is capable of great expansion.

Lesson 14.—Exports and Imports.

1.—What we do not need for our own use we **export**. What we require and cannot produce in the Colony we **import**. We sell the one. We buy the other. This buying and selling is called commerce.

(i) What we sell to other countries is generally raw materials. This is not a manufacturing country. The exports go chiefly to England.

2.—The principal exports of Cape Colony are **diamonds, wool, mohair, ostrich feathers, hides and skins, copper, and wine.**

(i) The value of the diamonds yielded annually by the Kimberley Mines is about £5,000,000.

(ii) About 60,000,000 lbs. of wool, valued at £2,000,000, are sent each year to England and the United States, and the wool would fetch a higher price if it were better sorted, and the sheep were wholly free from scab, an insect which burrows in the skin and makes the wool brittle.

(iii) Mohair is exported annually to the value of about £800,000, and each year the quantity is larger, for many parts of the country are admirably suited to the Angora goat.

(iv) Ostrich feathers are exported each year to the value of about £800,000.

(v) The four largest Colonial ports are Capetown, Port Elizabeth, East London, and Mossel Bay. By means of large and powerful steamers the Colony possesses regular weekly connection with Europe. The voyage of 6,000 miles, once so tedious, is now reduced to 16 days' steaming from Capetown to Southampton.

3.—The principal imports of Cape Colony are **timber, clothing, hardware, breadstuffs, sugar, coffee, rice, and tea.**

- (i) **Timber** comes from Sweden, Norway, and North America.
- (ii) **Clothing, Hardware, Outlery**, etc., come from England.
- (iii) **Wheat and Flour** are obtained from South Australia.
- (iv) **Sugar** comes from Natal and Mauritius.
- (v) **Tea** comes from Natal, China, and Assam.
- (vi) **Rice** comes from Calcutta.
- (vii) **Coffee** is imported from Java and Brazil.

Lesson 15.—Railways and Telegraphs.

1.—The only means of inter-communication throughout the Colony was, at one time, the ox-waggon, drawn by sixteen oxen, and moving slowly along at



the rate of three miles an hour, with a load of about 8,000 lbs. But this mode of transport utterly failed in times of drought; and trade was seriously hindered. The rivers were of little use for the transport of goods. Railways have been found a necessity; and since 1859, when the first railway was begun from Capetown to Wellington, works of this class have been energetically pushed forward.

2.—There are **three** important Government railways in Cape Colony, and they connect the seaports of Capetown, Port Elizabeth, and East London with the interior.

(i) The Colony possesses 2,600 miles of railway, and extensions are being made almost every year ; the gauge is 3 ft. 6 in.

3.—The **Western** system includes a line from **Capetown** through **Paarl, Wellington, Worcester, and Beaufort West** to **De Aar**, where the Midland system joins it, and it then proceeds to **Kimberley**, 647 miles from Capetown. A further extension connects Kimberley with



HEX RIVER PASS.

Vryburg, in Bechuanaland, and the line then proceeds to **Mafeking, Bulawayo, and Victoria Falls.**

(i) A branch line runs from Capetown to Simonstown, the British Naval Station.

(ii) A branch line runs from Durban Road Station to Malmesbury, a district noted for its grain crops.

(iii) A loop line passes round by Stellenbosch with a branch from Eerste River Junction to Somerset West and Sir Lowry's Pass.

(iv) A line runs from Worcester to Swellendam.

(v) The Western system, in proceeding from Paarl to Worcester, makes a long detour to avoid tunnelling the lofty Drakenstein range. By many a steep gradient and abrupt curve it ascends the Hex River Valley, where "mountains

of solid rock rise up thousands of feet on either hand, the vast strata contorted into fantastic shapes, and below them the smiling valley with its sprinkling of wine farms." Having emerged on the Great Karroo, the line crosses a dreary landscape to Beaufort West, and proceeds to Kimberley, Mafeking, and Bulawayo. This is the longest railway in South Africa.

4.—The **Midland** system consists of five sections: (1) A line from **Port Elizabeth** through **Uitenhage** to **Graaff-Reinet** and **Rosmead Junction**. (2) A line from **Port Elizabeth** to **Allcedale**, then up the Great Fish River Valley to **Cookhouse**, where lines branch off to **Somerset East** on the one side, and to **Bedford** and **King Williamstown** on the other. It then proceeds to **Cradoek** and **De Aar**, where it joins the Western system. (3) A branch from **Allcedale** to **Grahamstown** and **Port Alfred**. (4) A line from **Naauwpoort** through **Colesberg** to **Bloemfontein**, **Johannesburg**, and **Pretoria**. (5) A line from **Mossel Bay** to **Oudtshoorn**, **Willowmore**, and **Klipplaats**.

(i) Distances from Port Elizabeth: To Graaff-Reinet, 185 miles; to Kimberley, 485 miles; to Grahamstown, 106 miles; to Bloemfontein, 450 miles; to Johannesburg, 714 miles; to Pretoria, 740 miles.

5.—The **Eastern** system runs from **East London** through **Queenstown** and **Sterkstroom** to **Allwal North**, 280 miles distant.

(i) A line from Rosmead Junction to Molteno connects the Midland and Eastern systems, and another line to Indwe gives access to the coal mines in the Stormberg.

6.—The Colony possesses an extensive **telegraphic system**, and nearly every town is now placed in communication. The Colony is also connected with Europe and the rest of the world by a western coast cable, which starts from Port Nolloth and follows the coast line; and by an eastern coast cable, which starts from Durban, and *via* Zanzibar, joins the Anglo-Indian line at Aden.

Lesson 16.—Population.

1.—There are in Cape Colony 2,405,000 persons of different races.

(i) The population is very unevenly distributed. The Cape division has 146 persons to the square mile. In Calvinia there is only one person to two square miles. The average for the whole Colony is 6.89 persons to the square mile. England has 500, and Holland 350, persons to the same area; but both these countries have extensive manufacturing industries, which favour the massing of operatives in favourable spots. Only in this way can costly machinery be used to the best advantage.

2.—There are 580,000 persons of **European descent.**

(i) Some are **Dutch**, the descendants of those who first occupied the Colony. Some are **French**, descended from the Huguenot refugees, who came in the years 1688–89. Some are **English**, who at different periods since 1806 have settled here; and some are **Germans**, who came at the close of the Crimean war and in subsequent years. Both English and Dutch languages are spoken. Cape Dutch is a patois vulgarised by Hottentot idioms, but great efforts have been made in recent years to restore the purity of the language.

3.—There are 1,825,000 Natives, consisting of **Bushmen, Hottentots, Kafirs, and Malays.**

(i) The **Bushmen** are a stunted, pigmy race, who in hunting and in war use poisoned arrows. The poison used is supposed to be snake venom, carefully extracted, mixed with Euphorbia juice. The Bushmen used to steal the farmers' cattle and attack the farmers' homes; and in retaliation they were shot down by the farmers as vermin. There are about 500 survivors within the Colony, who live on the banks of the Orange River, below Kheis. They have a dirty yellow face, the skin wrinkled like that of a frog, a large abdomen, and thin spindle legs and arms. They are wiry and enduring, and make expert hunters. The Bechuanas call them "human scorpions." In the caves they formerly inhabited rude paintings of animals are found, which show remarkable spirit. Their language abounds in clicks.

(ii) The **Hottentots**, so called, number about 200,000. They have pale brown or yellow skins, woolly hair, small slightly oblique eyes, flat noses, and high cheek-bones. They are an easy-going, light-hearted people, but make good gardeners, grooms, and drivers. There are very few, perhaps not more than 30,000 of pure blood. The Namaquas in Namaqualand, and the Koranas in Griqualand West, are pure Hottentots, but the Griquas are of mixed blood. The Namaquas call themselves by the imposing title of "Khoi-Khoi," or "men of men." They keep sheep and oxen and are able to smelt copper.

(iii) The **Kafirs** belong to the great Bantu family of men which occupies Africa as far as the Equator. Their colour varies from light brown to jet black. The nose is broad, the lips are thick, and the hair is woolly. Tall, erect, muscular, they are noted for their fine physical development and proud bearing. They are a pastoral people, and possess large herds of cattle. They love the freedom of veld life, their tribal unity, and the persons of their chiefs. Their arms consist of assagais, or slender spears, having a barbed head; and knobkerries, or sticks with a knob at one end. They are fearless and warlike, and have been engaged in six or seven wars against the European Colonists; but they are now subdued and peaceful. They live in bee-hive shaped huts. Their food consists chiefly of mealies and milk. The women till the ground, whilst the men tend and milk the cattle. In a heathen state, Kafirs are polygamists. They can scarcely be said to have a religion. They have some idea of a future world; but they believe that the spirits of dead ancestors can work good or evil, causing sickness and death, and must be appeased with gifts of meat and Kafir beer, which are placed near their graves. They are completely under the control of the "witch doctor." The name "Kafir" is a general name given by the Arabs to all non-Mohammedan peoples; but it has somehow got attached to the Native tribes of South Africa.

(iv) There are about 12,000 **Malays**, descendants from persons brought from Java during the Dutch rule, and from immigrants in more recent times.

They reside principally in Capetown and Port Elizabeth, and are hawkers of fruit, vegetables, and fish. In religion they are Mohammedans, and still make pilgrimages to Mecca. Most of them speak the Dutch patois of the Colony.

Lesson 17.—Plant Life.

The plant life of South Africa has a wonderful diversity of form and colour. In so extensive a country climate and rainfall greatly differ, and the varieties of plants, in suiting themselves to their surroundings, are almost endless.



ARUM LILIES.

In the south-west of the Cape the summers are dry and hot, and vegetation becomes withered and brown, but when the winter rains fall the landscape is full of forest and floral beauty.

On Table Mountain is the remarkable Silver Tree, with its long bright leaves of satin. Large tracts of country are covered with low shrubs of a dull blueish green colour, the chief of which is the Rhenoster Bush, a worthless plant, which neither beast nor bird will eat. About the end of May, after the first rains, the ground breaks forth with the bright blooms of bulbous-rooted plants, as Irises and Lilies, the commonest and yet most beautiful of which are the Arum Lilies, known as pig lilies, with their white bugle-shaped blooms. On the mountains flourish magnificent orchids, as the gorgeous Disas, some like crimson moths with widespread wings, and others of a deep

blue colour. About Caledon are numberless heaths, the leaves of which are curled up into cylinders to protect the breathing pores from sun and wind, and the pink tints of which often make a hillside glow with colour. In some districts are miles of everlasting flowers, which are gathered from September to December, dried and sent to Europe for decorative purposes. In the grass may be seen handsome Pelargoniums and Oxalises, with their white, red, and yellow blossoms. All these are wild flowers, and can be plucked by the stranger at will.

As the traveller journeys eastward and reaches the Tsitzikama Forest, he enters the sub-tropical eastern region, where the character of the seasons is reversed; the winters are usually dry, and the summer rains, coming from the warm Indian Ocean, make the climate moist and hot.

In the coast belt the grass is sour but heat-resisting. On the plains are long stretches of the Noorsdorn, with thorny angular sides, but which in times of drought are cut up to feed cattle and sheep. Amongst the trees are the Boer boon with its gay flowers; the Wild Chestnut, tipped at Christmas-time with pink blossoms; the hard-wooded trees, as the sneezewood, valuable for fencing posts and piles, because neither white ant nor sea borer will touch it; assagal wood, so-called because the Kafirs made the shafts of their assagais out of its tough strong branches; and stinkwood, the South African teak. One of the commonest trees is the Mimosa, with its long white glistening thorns, and rich yellow flowers when in bloom. On the hillsides are aloes with their tall stems and red blossoms flashing like war signals. Occasionally may be seen tall specimens of the Yellow Wood, one of the few soft-wooded trees of South Africa. In the Pirie Bush is the Box Tree, found nowhere else, and useful for engravers when books were illustrated with woodcuts. In the Addo Bush are masses of low trees: the Spekboom, the fleshy acid leaves of which are eaten by the elephant; the euphorbia, with its hollow skin; the guarri, with its small dark-green leaves. Most of these are often covered with grey lichens, which hang like waving beards from their branches, or are clasped by long creeping wild vines, or monkey ropes. Two unwelcome foreign visitors have crept into the district: the Burrweed, having seeds covered with sharp curved spikes which cling to the sheep as they pass, and damage the wool; and the Prickly Pear, with its numberless thorns, which in some places has spread over farms to such an extent as to make them almost worthless.

The Karroo region has a vegetation peculiar to itself. The climate is dry, extremely hot in summer, and cold in winter. The rain is generally brought by thunderstorms.

The Karroo is covered with low shrubs which send their roots deep beneath the surface in search of underground moisture. These bushes, even when dry and blackened, have wonderful feeding power, and support thousands of sheep and goats. After rain, the appearance of the Karroo is changed as by magic. The bushes put forth bright green leaves, and white and yellow starry flowers. Bulbous-rooted plants send up their green blades and wax-like blossoms with marvellous rapidity. Flowering herbs and grasses are seen everywhere. At the end of two months it is over, and the Karroo assumes the

red and brown tints which it usually wears. In order to resist long droughts, the roots and stems and leaves of plants are thick, so that moisture can be stored therein. Bulbous-rooted plants store moisture underground, and will sometimes remain dormant for years until the touch of rain wakes them up. One bush, the Kanna-bush, is burnt, and the ashes are used for soap-making. In many places can be seen the Finger-poll, with its low finger-shaped crown, which in dry seasons is cut up for cattle. Along the water-courses are mimosa, thorn and willow trees.

Going northward the climate changes. The rains are in the summer months and are brought by the south-east winds. The valleys are hot and moist and infested with fever. In winter the hill-tops are covered with snow.

The trees, chiefly Acacias, are larger, and armed with formidable thorns. The Kameeldorn, or camel-thorn, is one of the largest. Another has thorns curved like a fish hook, and which tear to shreds the clothing of any one who gets entangled in them. Hence the Dutch call it the "Wach-een-beetje," or the "Wait-a-bit" thorn. Here and there are Palms with their graceful feathery foliage. Perhaps the largest tree is the Baobab, not the tallest, but covering the largest space, often measuring 120 feet in diameter. It has large white drooping flowers, and fruit the size of an orange, the pulp of which is pleasant and slightly acid, and the juice when mixed with water is gratefully cooling in hot weather. The colonists call it "the cream-of-tartar" tree.

Many imported trees do well, and all over South Africa, in the towns adorning the streets, or in the country, near farmhouses, have been planted oaks, Australian gum-trees, beefwoods, pepper trees, grevilleas, and several varieties of pines. Not only do these afford pleasant shade, but when they are planted more extensively the Colony will be made independent of foreign woods for building purposes.

Lesson 18.—Animals.

1.—Dry heat is favourable to animal life. Cape Colony was at one time unusually rich in different species of wild animals. But now many of them have retreated towards the Zambesi. The persistent crack of the rifle and the spread of farming have driven them northward.

(i) When the Dutch first occupied the Cape, the lion's roar was heard each night from the Castle walls; the rhinoceros fed on the herbage which clothed the skirts of Table Mountain; the hippopotamus was seen in most of the rivers; and the quagga, the eland, and the gnu roamed over the Karroo plains.

2.—The largest animals in Cape Colony are the Elephant and the Buffalo.

(i) The **Elephant** and the **Buffalo** are still found in the dense forests of the Knysna, and the rugged defiles of the Addo Bush. The elephant stands from ten to eleven feet high at the shoulder, and lives about 120 years. Its foot is padded with a half spongy, half jelly-like mass beneath the bones, so that, huge as it is, it can tread as softly as a cat. Its trunk is not only used to convey food and water to the mouth, but is the organ of touch and smell.



ELEPHANT.

(ii) Compared with the Asiatic elephant, the African animal is taller, his ears are three times as large, and his tusks are heavier. In the Indian elephant only the males are furnished with tusks, whereas in the African species both sexes are supplied with them. The African elephant seems also to be less tractable, and has not been trained to the service of man since the days of Carthage and the Roman Empire.

(iii) The **Buffalo** inhabits reedy swamps. It has thick strong limbs, a black skin, and its forehead is covered with an impenetrable helmet formed of the extended roots of its gigantic horns. Buffaloes are fierce and vindictive, and when wounded take to the thick bush, where they lie in wait for their foe.



LEOPARD.

3.—The most destructive animals in the Colony are the **Leopard**, the **Jackal**, the **Wild Dog**, and several varieties of **Wild Cat**.

(i) The **Leopard**, or Cape tiger, haunts deep-wooded ravines, and climbs trees easily. It preys on antelopes, baboons, etc., but sometimes commits sad depredations on calves and sheep. It is crafty and ferocious. It creeps with the noiselessness of a serpent, and when within available distance, springs swiftly on its victim. Its skin is a light yellow, marked with black spots arranged in rows along the sides. A beautiful black variety is found in Albany.

(ii) **Jackals** are the pest of the sheep-farmer, attacking the lambs and preventing the free pasturing of the flocks at night. When on the chase they howl most dismally. They measure about three feet in length, one-third of which is occupied by the tail. With the skins, beautiful karosses are made.



JACKAL.

(iii) The **Wild Dog** (*Eyena pictus*) is about the size of a wolf, with blunt black muzzle, sloping back, and sides blotched with white spots on a greyish ground. They hunt in packs, and a dozen or more will sweep through a forest or over a plain, with a long untiring stride, and attack antelopes, ostriches, sheep, or whatever they meet.

(iv) The **Serval**, or tiger bush cat, has a skin with black spots on a buff ground. The **Lynx**, or red cat, has high ears tipped with tufts of black hair. The **Wild Cat** has a yellowish-grey skin, with a dark stripe along the back, and darkish stripes along the sides. They all prey on mice, birds, and small game. When these fail, the farmer's poultry often suffer.



LYNX.

4.—The oddest animals are the **Ant-bear**, the **Spring-hare**, the **Zebra**, the **Aard-wolf**, and the **Dassie**, or **Hyrax Capensis**.

(i) The **Ant-bear**, or **Aard-vark** (earth-pig), is rarely seen, as it never comes out of its burrow except at night. It has bat-like ears, a pig-like head and skin, a short hairless tail, and tremendous claws set on limbs which are a mass of muscle. With its powerful claws it tears down the walls of the ants' nests. The insects rush out, and into their midst it darts its long, slimy tongue, and sweeps them into its mouth by thousands.

(ii) The **Spring-hare**, or **Jerboa**, has a large head, prominent eyes and wide ears. The hind legs are four times the length of the front ones, which are fitted for digging. When alarmed, it moves forward in leaps, using its long and bushy tail as a lever to increase the force of the spring. It sleeps all day in its burrow and comes forth at night to prove a pest to the farmer, whose crops it devours.

(iii) The **Zebra** is exclusively African, and is found in the wilder mountains of the Eastern Province. Every part of its body is beautifully marked with

black stripes on a silver white ground. It is very shy and difficult to tame. The **Quagga**, once so numerous in Cape Colony, is now extinct, having in former years been shot down by hundreds for the sake of the skins.

(iv) The **Aard-wolf** (*Proteles Lalandii*), or **maned Jackal**, forms a connecting link between the **Hyena** and the **Civets**. It resembles the hyena in its sloping back, colour markings, and mane; but it

is like the civet in its pointed head and in its small molar teeth. It constructs burrows, and several may inhabit the same burrow. It is nocturnal in its habits, and lives chiefly on white ants, though within recent years it has developed carnivorous tendencies, and attacks lambs and kids chiefly for the milk paunch.

(v) The **Dassie**, or **Hyrax Capensis**, with its cleft upper lip and soft-furred skin, looks like a rabbit; but the feet are really hoofs with short black nails, and in form resemble those of the rhinoceros, with which huge animal it is



AARD-VARK.



JERBOA.



ZEBRA.

classed. It lives in crevices of the rocks and may often be seen sitting in the warm rays of the sun. It is the coney of the Bible, and the smallest of the pachyderms.

5.—The most characteristic animals of the Cape Colony are the **Antelopes**.

(i) The colony possesses more than 30 varieties of the antelope family, remarkable for their beauty. The **Spring-bok** adorns the plains in herds of a hundred or more; and when startled by a shot will leap up four or six feet in the air, and throw open the hair along the spine, showing a long white line. The **Steen-bok**, a small and graceful antelope, inhabits stony hills; the **Duiker**, or Diver, is so called from its habit of diving into the thickest bush when alarmed; the **Rhebok**, or Red-buck, is very shy and swift, and inhabits mountain tops; and the **Bosch-bok** frequents the thickets and forests near the coast, and barks like a dog. The **Koodoo**, a large animal with long spiral horns, loves to browse on rocky hills covered with bushes. The **Ourebi** frequents the plains. The **Klip-springer**, no larger than a hare, inhabits the tops of the most inaccessible hills, and in habit is a miniature chamois. The dried flesh of bucks is called "biltong," and is much appreciated by travellers and invalids.

(ii) Many of the rarer animals, as the elephant, buffalo, koodoo, and zebra, are not allowed to be hunted except by permission of the Governor.

6.—Of four-handed animals, muscular and cunning **Baboons** are found in cliffs that overhang river-valleys, and **silver-grey Monkeys** abound in the bush of the coast districts.

(i) Both species of animals have capacious cheek-pouches: feed on fruits, roots, seeds, and insects, and often do a deal of mischief in the farmer's lands and orchards.

Lesson 19.—Birds and Reptiles.

1.—Cape birds are remarkable for plumage rather than for song. There are no songsters to rival the nightingale or the lark; but European birds are eclipsed in brilliancy of plumage by the flashing honey-sucker, the crested hoopoe, the golden cuckoo, and the handsome lorie.

2.—The largest bird in the Cape Colony is the **Ostrich**; one of the smallest is the **Honey-sucker**, or sun-bird.

(i) The **Ostrich** is still found wild in Namaqualand, the Great Karroo, and the Orange River Valley, but all over South Africa, ostriches are kept on farms for the sake of their beautiful feathers. They are fond of the fleshy leaves of the spekboom, and the seed pods of the aloe, but they swallow pebbles and even bits of iron which assist them to digest their food. See Lesson 13.

(ii) The body of the **Honey-sucker** is scarcely larger than a walnut, and with its brilliant orange and crimson plumage and its slender curving bill, may often be seen on the aloes when in bloom, "a living gem."



OSTRICH.

3.—The most characteristic birds are the **Secretary-bird**, the **Vulture**, the **Pauw**, the **Flamingo**, and the **Honey-bird**.

(i) The **Secretary-bird** receives its name from its long head-feathers, which bear a resemblance to pens carried by clerks behind the ear. It has the look



SECRETARY-BIRD.

of a crane, but is properly a falcon, having the beak, short neck, and claws of a hawk. It is supposed to be most valuable in destroying serpents; but is suspected of not being able to resist the temptation of eating young partridges, as well as partridge and plover eggs when they are in season. The truth is it eats all sorts of small animals. In the stomach of a secretary-bird examined by Dr. Shonland were found 2 snakes, 26 lizards, 2 field rats, 1 mouse and 3 locusts.



VULTURE.

(ii) The **Vulture**, or Aas-vogel, is the scavenger of the Cape. Ten minutes after an animal has fallen, the vultures make their appearance in the sky, where before not a speck was to be seen. They pick a

carcase clean in a marvellously short time. Awkward and ungainly on land, their wide expanse of wing enables them to wheel to and fro in the sky with amazing gracefulness and power. They make their nests in inaccessible cliffs.



PAUW.

(iii) The **Pauw** is not a peacock, as its Dutch name would imply, but a bustard, which, when full grown, will weigh 20 lbs. A smaller variety is the **Korhaan**, or scolding cock. Both are found in the Karroo.



FLAMINGO.

(iv) The **Flamingo** frequents shallow lagoons and the mouths of rivers, and feeds on worms, molluscs, and fish spawn. It has extremely long legs and neck, and a small body. With its curved bill of an orange colour, and plumage of a rose tint, deepening into bright red on the back and wings, it is not inaptly named the Flamingo, or "Flame-bird." It is abundant in the bays and estuaries of the West Coast.

(v) The **Honey-bird's** cry, "cherr-a-cherr, cherr-a-cherr," may often be heard in the bush, and, if attended to, the bird will guide to a bees' nest. Its object is not the honey, but the grubs or larvæ, which it eagerly devours.



IGUANA.

4.—Of the Lizard family, the largest in the Colony is the **Iguana** or Legavan.

(i) The **Iguana-lizard** (*Monitor Niloticus*) is one of the largest known lizards, sometimes measuring six feet in length. It feeds on crabs, insects, fish, and water-birds. It is a great devourer of young ducks, and an

inveterate egg-stealer. Its favourite resorts are the banks of rivers, where it will remain motionless for hours, waiting for its prey. When disturbed, it

suddenly plunges into the water, where it is perfectly at home. Its tongue is forked, but it is not venomous. There is a rook variety, called the Dassie-adder, of which the natives tell marvellous tales.

5.—Snakes are common in Cape Colony. The venomous snakes are the cobras and the adders. The non-venomous include the rooi-slang, the schaap-stiker, the water-snake, the herald-snake, which mimics the fierce attitude of the cobras, the boom-slang, and the rough-scaled egg-eater, which inflates itself and hisses like an adder.

(i) The cobras have a small fang on each upper jaw, and have a fold of skin behind the head which expands into a kind of hood when attacked. They consist of the black, brown, and yellow cobras, and ringhals. All the cobras are very deadly in their bite.

(ii) In the adders the fangs are very large, and the head is about three times as thick as the neck, which does not possess a dilatable fold of skin. They include the deadly puff-adder, black or berg-adder, horned-adder, and night-adder.



(iii) Beside cobras and adders, there is an intermediate group, called coral or garter snakes, without any hood.

(iv) The schaap-stiker does not kill sheep. Cobras lay eggs with young in them. The adders bring forth their young alive.

(v) In the egg-eating snake is a remarkable mechanism for extracting the contents of the egg it seizes. The spines of some of the vertebrae project through the wall of the gullet, so that they are veritable teeth. With the help of these the egg-shell is cracked and the contents liberated into the throat, and the shell is then rejected by the mouth.

(vi) Serpent poison can be swallowed without danger. It becomes injurious only on mixing with the blood. In case of snake-bite, a tight bandage should be immediately drawn above the wound, along with free cutting, and the insertion of permanganate of potash. Brandy and spirits of ammonia, with hot water, may be given frequently. In counteracting the poison, brandy loses its intoxicating properties.

Lesson 20.—Government.

1.—The Cape is a British Colony and possesses Responsible Government.

(i) The King is represented by a Governor nominated by the Crown, whose term of office is usually six years.

(ii) Responsible Government was granted to the Cape in 1872. Under this system the Governor has associated with him in the government of the country a council of advisers called the "Ministry," who remain in office as long as they can retain the support of a majority in Parliament. This majority represents the will of the people, so the people themselves are responsible for the laws that are passed.

2.—The **Colonial Parliament** consists of two chambers, the **Legislative Council** and the **House of Assembly**.

(i) The **Legislative Council** is composed of 26 members elected by nine circles or provinces.

(ii) The **House of Assembly** consists of 107 members returned by 47 districts or divisions.

(iii) A person is entitled to **vote** (a) if he has resided in the Colony for twelve months; and (b) if he occupies property worth £75; or (c) if he receives wages amounting to £50 a year; (d) he must be able to write his name, address, and occupation. Elections for both chambers are by ballot.

3.—Parliament makes the laws that we have to obey.

(i) When a law is proposed, a **Bill** is brought into the **House of Assembly**. It is then discussed by the members, and may be altered in any way. If the members cannot agree, they divide. All who think one way go to one side of the House; and those who think the other way go to the other side. Then each side is counted, and the opinion of the majority is embodied in the **Bill**. Before a **Bill** can be passed, the House must vote three times in its favour.

(ii) When a **Bill** has passed the **House of Assembly**, it has to go to the **Legislative Council** for further discussion. When both Houses have passed it, the **Governor**, as acting for the **King**, assents to it. It is then promulgated in the *Government Gazette*, and at length becomes a part of the law of the land. A **Bill** thus passed and assented to is called an **Act of Parliament**.

4.—The **Ministry** generally consists of five or six persons, one of whom acts as **Premier** or chief adviser, with or without portfolio—that is, any special department of work to attend to. Their duty is to see that the laws are carried out, and to suggest such alterations in the laws as may be found desirable. They are the **Treasurer**, the **Colonial Secretary**, the **Attorney-General**, the **Commissioner of Public Works**, and the **Secretary for Agriculture**.

(i) The **Treasurer** has to receive all the taxes which are collected in order to pay the expenses of governing the country. Every year he has to report what he has received, and what has been done with the money. He also estimates what will be required for the coming year, and makes proposals how the money is to be obtained. This is called the "**Budget**," a word that means a purse.

(ii) The **Colonial Secretary** is responsible for the efficient working of the **Postal** and **Telegraph** systems. He has to care for the interests of the **Education Department**, with its **Public**, **Mission**, and **Farm Schools**.

(iii) The **Attorney-General** has to advise the **Government** on all questions about law and justice. He has the oversight of the **Civil Commissioners**, **Resident Magistrates**, and the **Police**.

(iv) The **Commissioner of Public Works** has to look after the railways and roads of the country. He has to see that bridges are built across rivers, and that **Government lands** are properly sold. If a **lighthouse** is to be erected, or a **harbour** to be improved, he must be consulted. He has to look after the forests, so that the timber is not wastefully cut; and after the **Diamond Mines**, that they may be worked with as little risk to human life as possible.

(v) The **Secretary for Agriculture** is appointed to promote the adoption of the most scientific and successful methods of farming, in all its details of tillage, crops, live stock, and dairying. The Agricultural Schools and the bi-monthly paper, the *Agricultural Journal*, are attached to his department.

5.—The **Annual Revenue** is derived principally from Railways, Customs, the Postal services, from direct taxation in the shape of Licenses, and also from an Income tax.

(i) **Customs** are taxes levied at the various ports on goods that come from other countries. On sugar 3s. 6d. per 100 lbs. is paid; on corn 1s. per 100 lbs. is paid; on butter 2d. per lb. is paid: and so on other articles.

(ii) **Licenses** are permissions granted by Government to persons to carry on a certain business. A baker's license is £5 a year; a chemist's is £5 5s. a year; an auctioneer's is £10 a year.

(iii) The **Public Debt** of the Colony is about £40,000,000, of which four-fifths have been spent on railways and harbours.

Lesson 21.—Divisions of the West Coast Region, I.

[CHIEF INDUSTRY: **Copper Mining.**

CHIEF CULTIVATED PLANTS: **Wheat and Vines.**]

Cape Colony is not divided into counties or shires as in England, but into districts. In 1806 there were only four divisions, the Cape, Stellenbosch, Swellendam and Graaff-Reinet. Now there are many more, and over each division a magistrate is appointed to administer the laws.

1.—**Namaqualand** presents nothing to the eye but a dismal succession of hills and gorges and sandy plains, all bare and desolate. Thirty miles inland stretches a range of mountains which are rich in copper. The climate is very dry, and rain seldom falls.

(i) **Namaqualand** lies in the dry barren belt between the "trades" and return-trade winds, in which Western and Central Australia and the desert of Atacama, in Chili, also lie.

(ii) The principal copper mines are O'okiep (1900), Springbok, and Concordia (1,900). The ore is of very rich quality, and is taken down by rail to **Port Nolloth** (1,236), where it is shipped to Swansea in Wales to be smelted.

(iii) **Springbokfontein** (604), the seat of the magistracy, is a small town; so also is O'okiep (1,500).

2.—**Van Rhyn's Dorp** contains much barren land; but in the valleys of the rivers may be found small farms which produce very fine grapes and raisins.

(i) **Van Rhyn's Dorp** (592) is a young village on the "Troë-Troë" farm.

3.—**Clanwilliam**, towards the coast, is a sandy plain called the "Zandveld," but inland it is crossed by the Olifant's River Mountains

and the Cedar Bergen. Between these two ranges of hills lies the rich valley of the Olifant's River, which, like the lower Nile, makes an oasis in the surrounding dreariness.

(i) The lower valley of the Olifant's River is so fertile that not infrequently crops of wheat, a hundredfold, are obtained. In the upper valley are fine vineyards, orchards, and orangeries, and great quantities of stone fruit are dried.

(ii) **Clanwilliam** (1104) is situated on the Jan Dissel's River, near to its junction with Olifant's River.

4.—**Piquetberg** is divided by the Piquetberg range into two districts. The "Zandveld," near the coast, is a rich corn-producing country. East Piquetberg is also a fine tract of country, with numerous vineyards. Large quantities of tobacco, oranges, and peaches are grown and sent to Cape Town.

(i) In Governor Goske's time the Dutch, then at war with the Hottentots, used to "picket" their soldiers on the mountains. Hence the name. **Piquetberg** (965) is a village on the side of a hill, and in harvest time the valley below extending for many miles is one waving sea of grain.

5.—**Malmesbury** is an extensive undulating plain. From the colour of the soil it is sometimes called the Zwart (=Black) Land, which, like the Black Earth region in Russia, is very fertile. Here is the best wheat-producing district in the Cape Colony; the rains fall early in the winter—a favourable time for ploughing.

(i) **St. Helena** and **Saldanha Bays** are in this division, and great quantities of fish, chiefly snoek, are caught.

(ii) **Malmesbury** (3784) is pleasantly situated, and is connected with Capetown by a line of railway. In the town is a mineral spring, which is beneficial in nervous and rheumatic affections.

Lesson 22.—Divisions of the West Coast Region, II.

1.—**CAPETOWN** (77,183) is not only the capital, but is also the oldest and largest town in the Cape Colony. It is a railway terminus, a maritime port, a commercial centre, and an electoral division.

(i) Froude says, "In all the world there is no place more beautifully situated than Capetown." It stands at the foot of Table Mountain, and as the map shows, faces north. The view from "the Kloof" rivals that of the Bay of Naples. Table Mountain, rugged and seamed, towers on the right; the Lion's Head, difficult to climb, is on the left. Below are villas and gardens that mingle together and stretch along the foot of the mountain for nearly ten miles. Lower down is Capetown, with the wide curve of Table Bay. Beyond on the left is Robben Island, and on the right are the Blauwberg Mountains.

(ii) **Capetown** was laid out by the Dutch. Its streets cross each other at right angles. The houses in the older parts of the town have large windows with small panes flat roofs, and "stoeps" in front, on which in the old days

the occupants loved to sit and sip their coffee. The **finest** street is Adderley Street, in which are the Railway Terminus, the Standard Bank, and many handsome modern-looking shops. At the top of the street is the Dutch Reformed Church, beneath the floor of which lie the remains of eight Dutch Governors. The **oldest** building is the Castle, with its parapets and embrasures, surrounded by wall and ditch, but now utterly useless for defensive purposes. The **most imposing** building is the Houses of Parliament. The **pleasantest** resort is the Government Gardens, with their avenue, 1,200 yards long, of grand old oaks supposed to have been first planted by Simon van der Stel; and the Botanic Gardens, that contain specimens of most South African trees and plants. In the close vicinity are the Public Library and Museum; the



ADDERLEY STREET, CAPETOWN.

former containing many valuable works, including books printed by Caxton and a copy of the first edition of Shakespeare's plays, given by Sir George Grey, when Governor of the Colony, whose statue stands in front of the Library Buildings.

(iii) Perhaps no town in the British Empire has a more varied population than Capetown. English and Dutch, sprung from one famous Teutonic stock; Hottentots, with their pale yellowish-brown faces; Malays in turbans and bright flowing robes; and not a few Kafirs, can be seen any day in the streets of this polyglot city.

(iv) **Green Point** and **Sea Point** (8,840) to the west of Capetown, and **Woodstock** (29,434) to the east, are popular and pleasant suburbs connected with the city by electric tramways.

2.—The **Cape** division has the sea on two sides. South of Table Mountain are the famous vineyards of Constantia, producing superior wines.

(i) **Mowbray** (9,600), 4 miles from Capetown, has modern villas and old-fashioned farmhouses dotted amid groves of pine, eucalyptus, and oak. In the vicinity is the Royal Observatory.

(ii) **Rondebosch** (6,042) is hidden in cool woods, and is a favourite place of residence for the merchants of Capetown. Here is "Groot Schuur," the home of the late Hon. C. J. Rhodes, and one of the oldest houses in the Cape.

(iii) **Claremont** (14,500) is a busy commercial suburb.

(iv) **Wynberg** (18,468) is a pleasant town eight miles from Capetown. "Within view are bits of scenery which it would be hard to beat, so grand are



the outlines of Table Mountain, and so rich and beautiful is the verdure of the shrubs and trees."

(v) **Muizenberg** (3,608) is a favourite watering-place on the north-west shore of False Bay. Here General Craig landed his forces in 1795, when he and Admiral Elphinstone were sent out at the request of the Stadholder of Holland to take possession of the Cape lest it should fall into the hands of the French.

(vi) **Kalk (= Lime) Bay** (3,608) is another pleasant seaside watering-place on False Bay, and is much frequented in summer by the inhabitants of Capetown.

(vii) **Simonstown** (6,642) is a Naval Station, strongly fortified, and connected with Capetown by rail. It has a dockyard in which many of the inhabitants are employed. The bay teems with fish, which are caught, salted, and sent to Mauritius, or sent inland packed in ice.

Lesson 23.—Inland Divisions of the West Coast Region.

[CHIEF CULTIVATED PLANTS: **Vine and Peach.**]

1.—**Tulbagh** includes the country in which the Berg and Breede Rivers have their sources. It enjoys a genial climate, and produces **wheat and wine**.

(i) **Tulbagh** (796), named after the popular Governor, Ryk Tulbagh, is an old quaint village in the Little Berg River Valley, which, from the splendour of its wild flowers, is sometimes called "the Garden of the Cape."



PAARL.

2.—**Paarl** lies at the foot of the Drakenstein Mountains. The Berg River runs through this division. This is the chief wine district of the Colony.

(i) **Paarl** (= Pearl) (11,783) is a long picturesque town situated on the Berg River. "For seven miles you drive through a broad, well-shaded street, lined on each side with oaks, in the rear of which graceful houses are built at easy intervals, at every one of which you are tempted to think you would like to live." The name "Paarl" is derived from a number of large boulders of glistening granite on the top of a mountain close to the town, and which are supposed to look like pearls. The town carries on a large business in wine, and in cart and wagon making.

(ii) **Wellington** (4,875), at the foot of Bain's Pass, through the Drakenstein Mountains, is occupied in tanning and the manufacture of boots and shoes. It possesses excellent educational institutions for both boys and girls.

(iii) **Fransche Hoek** (= French Corner) (1,305), at the head of the Berg River, was the home of the Huguenot refugees who came to the Cape in 1686-88, after

the revocation of the Edict of Nantes. The farmhouses stand on each side of the river amid vineyards and groves of orange, naartje, and lemon trees. The population consists of wine and fruit farmers.

3.—**Stellenbosch** lies to the south of the Paarl division, and is well watered by the Eerste River. The soil is fertile, and the principal production is wine, for which the division is famous.

(i) **Stellenbosch** (4,963), on the Eerste River, is a fine example of an old Dutch town. Its wide streets, lined with oak trees, show how in a hot climate the Dutch cared for shade. The Drakenstein mountains are within a stone's throw. Vineyards, orchards, and gardens irrigated by a noisy mountain stream, quaint old houses with thatched roofs, a town square with green turf, and white-walled churches—that is Stellenbosch. The town is noted for its schools and colleges, which are unsurpassed, and entitle it to be called the "Cambridge" of South Africa. The place was named by Simon van der Stel.

(ii) **Somerset West** (2,610) is a pretty village, situated within a crescent of the Hottentot's Holland mountains, and not far from St. Lowry's Pass (named after Sir Lowry Cole), through which access is gained to Caledon.

(iii) **Somerset West Strand** (3,059) extends for a mile along the sands of False Bay, and is a popular watering place.

Lesson 24.—Divisions of the South Coast Region.

[CHIEF INDUSTRY: **Sheep and Cattle Farming.**]

1.—**Caledon** lies between the Zonder Einde (= Endless) Mountains and the coast. Its surface is very varied. Hill and dale, with numerous streams, furnish many pleasant scenes. The white farmhouses are numerous. Sheep-farming flourishes. Ostriches are abundant. Agriculture prospers, and very fine wheat is grown.

(i) **Caledon** (4,000), named after the Earl of Caledon, nestles in a snug valley at the foot of the Hartebeest mountains. It is a village of blue gum trees and "pleasant detached Dutch-looking houses, rarely amounting to more than one storey. The streets are as clean and shaded as the pet road through a gentleman's park." Five minutes' walk from the town, on a small ironstone kopje, are the famous hot chalybeate springs, efficacious in rheumatism and gout. A commodious sanatorium has been erected.

(ii) **Genadendal** (= the Dale of Grace), (2,044) is the oldest Mission Station in the Colony. It was founded in 1737 by the Moravians.

2.—**Bredasdorp** is flat in the south, but the north is hilly and famous for heaths and everlastings. It is an excellent sheep-grazing division. It contains the most southerly point of Africa, Cape Agulhas, surmounted by a lighthouse having a fixed white light.

(i) **Bredasdorp** (943) carries on a little wagon and cart-making. In this division the Bontebok, an antelope with fine ringed horns, is preserved; formerly it was plentiful everywhere in the Colony.

3.—**Swellendam** extends from the Zwartberg to the sea. The Langeberg crosses the division in the middle. The northern portion is a Karroo region, where sheep-farming is carried on. The southern portion is an undulating grassy country, devoted to cattle and agriculture.

(i) **Swellendam** (2,413), named after Governor Swellengrebel, stands on a tributary of the Breede River. The town is two miles long, and consists of one long street. Trollope says, "The mountains near are the loveliest I ever



SWELLENDAM.

saw. They are wild and picturesque, and the kloofs are thickly wooded. Oranges thrive, and large quantities of potatoes are grown.

(ii) **Heidelberg** (1,427) produces tobacco.

4.—**Riversdale** is a very fine grazing district, and abounds in sheep, ostriches, and cattle.

(i) **Riversdale** (2,631) is situated near the Vet River, and is noted for its park, and the large aqueduct by which the town is supplied with water from the river.

5.—**Mossel Bay** has for its northern limit the Langeberg Mountains. It contains many excellent cattle and ostrich farms, and in good seasons large quantities of grain are grown.

(i) **Mossel** (= *Mussel*) **Bay** (4,205) is picturesquely situated on the side of a hill overlooking the sea. Mail steamers call regularly. The port is connected with the Midland Railway by a line through Oudtshoorn to Klipplaats. Oysters and mussels are still found in the Bay.

6.—**George** is well wooded and watered, and is intersected by the Outeniqua Mountains. On the north side of the range is sweet veld, and here there are large sheep farms; on the south side the soil is good, and large quantities of grain are grown.

(i) **George** (3,506) is a pretty town, famous for its oak avenues. "No two houses are alike. They all stand away from the road. They have trees around them, and they have an air of old-fashioned comfort, as though the inhabitants ate roast mutton at one o'clock as a rule of their lives."

(ii) **Blanco** (460) is a village engaged in the manufacture of boots and shoes.

Lesson 25.—Divisions of the South Coast Region, II.

1.—**Knysna** is a country of mountains and lakes, peaty-brown streams and forests, which still afford shelter to the elephant and the buffalo. Here is some of the most beautiful scenery in South Africa. The rainfall is abundant, and near Plettenberg Bay excellent crops of grain are obtained.

(i) **Knysna** (= *Fern*) (1,514) is situated on Knysna harbour. The inhabitants cut wood in the forest and send it away to Capetown and Port Elizabeth. But wood is sometimes a drug in the market, and then the people are very badly off.

(ii) **Knysna Heads** form the entrance to the harbour. They stand 160 yards apart, and are almost perpendicular. "From where I stood," says a visitor, "I could have dropped a penny into the sea without touching the rock." The harbour, 8 miles long, is exceedingly picturesque, and affords a fine stretch of sheltered water for boating and fishing.

(iii) **Millwood** is the centre of a gold-bearing district, but no paying reefs have yet been found, and "the Camp" is half deserted.

2.—**Humansdorp** is a broken mountainous country lying south of the Great Winterhoek Mountains. The division is adapted for agriculture and cattle-farming.

(i) **Humansdorp** (882) is a village near the Zeekoe (*Hippopotamus*) River. As the erven are divided by rose hedges, the place has a cheerful appearance in summer. Wild ducks are plentiful in the neighbourhood.

3.—**Uitenhage** is traversed by the Winterhoek Mountains, which reach their highest point in the Cockscomb (5,967 feet), and the whole division is more or less covered with bush, which supplies very fair food for cattle.

(i) **Uitenhage** (12,199), on the Zwartkops River, is an old town founded in 1804, and named by Governor Janssens after a title in the family of the Dutch Commissioner, De Mist. It is a very pleasant town; the streets are well laid out, and the surrounding scenery is bright and pretty. It is supplied with water from a splendid fountain which gushes out with great force from the foot of the Winterhoek Mountains. The town has several wool-washeries and large railway shops, and is noted for its gardens.

4.—**Port Elizabeth** is the smallest division in the Colony, and occupies the Peninsula between Algoa Bay and St. Francis Bay.



NORTH JETTY, PORT ELIZABETH.

(i) **Port Elizabeth** (34,841), on Algoa Bay, is the chief seaport of the Cape Colony, and the terminus of the Midland Railway. Most of the import and export trade of the Eastern Province, the Diamond Fields, and the Orange River Colony passes through this port, which is sometimes called the "Liverpool of the Cape." But it is unlike Liverpool, in England, because it has no docks. The bay is completely open, like most bays on the south coast, to the strong south-east winds, and only an enormous outlay could make it a harbour. But in ordinary weather the anchorage is safe and convenient. The surrounding scenery is uninviting, but out of sandhills and scrub, Anglo-Saxon energy has created a town that, for cleanliness and health, and for the handsomeness of its business stores and public buildings, is second to none in South Africa. On "the Hill," which rises gradually from the shore levels, are miles of streets bordered with trees and pleasant-looking villas. There are three Parks, St. George's, Prince Alfred's, and Victoria, which are beautifully laid out, and are popular resorts. Main Street, two miles long, is the principal

thoroughfare, and is at all times of the day a busy scene. The imposing Town Hall, the spacious Market Buildings, the Provincial Hospital, and the Grey Institute, are the finest buildings in the town. Commodious jetties offer great facilities for carrying on the work of the port. A sea-wall and a fine promenade have been made along the shore at the south end of the town. Water is brought from Van Staden's River, twenty-seven miles distant. The town is named after the wife of Sir Rufane Donkin.

(ii) **Walmer** (1,226) is a picturesque village two miles from Port Elizabeth.

Lesson 26.—Divisions of the East Coast Region.

[CHIEF INDUSTRY: **Cattle Farming.** CHIEF CULTIVATED PLANT: **Wheat.**]

1.—**Alexandria** consists of undulating grassy plains, but as the division approaches the Zuurberg in the north, it becomes rugged and hilly. The coast lands yield good crops of wheat and oats. All over the division cattle do well, and dairy farming is carried on.

(i) Some of the coast lands have yielded good crops for fifty years without any artificial manuring. This is accounted for by the shells that slowly decompose and yield up their lime. The grass is sour caused by the saline properties in the sea breezes.

(ii) There are two forests in this division. The Addo Bush in the north, a dense jungle of spek-boom and other succulent plants, in which elephants and buffaloes still roam; and the Alexandria forest in the south, which contains large timber, especially yellow-wood.

(iii) This division, with Albany, formed the Zuurveld, out of which 20,000 Kafirs, with their chiefs Cungwa and Ndlambe, were expelled in 1811, and forced across the Fish River.

(iv) **Alexandria** (630) is a sleepy hollow, with a few stores and a flour mill.

2.—**Bathurst** is an agricultural division. Wheat and maize, oranges and pineapples are largely cultivated. The grass veld dotted with trees, and the undulating hills, impart to the scenery an English aspect. In this division and Albany the British settlers of 1820 made their first home.

(i) **Bathurst** (497) is a village not far from the left bank of the River Kowie.

(ii) **Port Alfred** (1,591) is a seaport at the mouth of the Kowie, but with little trade. It is a pleasant summer resort for sea bathing and fishing.

3.—**Peddie** (450) is inhabited principally by Fingos. It is well watered and fertile, and large quantities of grain are grown.

(i) **Peddie** (468), an old military post, named after Colonel Peddie, is now a village with the usual stores, a church and a school. At **Trumpeter's Drift**, on the Great Fish River, forty-one wagons were captured by the Kafirs in the war of 1846. At **Gwanga**, bordering on the road connecting Peddie with King-Williamstown, the British dragoons rode down a mass of Kafirs, and inspired them with terror of British cavalry which has never been lost.

4.—**East London** division is intersected by deep and wooded defiles, through which flow numerous rivers. It is a good agricultural and cattle district.

(i) **East London** (24,754), at the mouth of the Buffalo River, is another of those places which stubborn nature seems to have made unfit for shipping, but which the inhabitants are determined to convert into a useful harbour. The bar is being persistently dredged, and steamers of moderate draught can now enter the Buffalo, which, for picturesque scenery, is almost equal to the English river Dart. East London is the terminus of the Border railway.



BUFFALO RIVER, EAST LONDON.

(ii) At the close of the Crimean war in 1854–6, many of the soldiers of the German legion settled along the Buffalo River, and have proved very industrious and thrifty.

5.—**Komgha** is a country of rolling grass-covered hills. The pasture is excellent for both cattle and sheep, and in winter the stock are brought down from the cold dry uplands to the coast district. Towards the river Kei, the division is densely wooded, and abounds in handsome birds, such as the golden cuckoo and the loorfe.

(i) **Komgha** (683) is a village that, during the last Gaika-Gcaleka war, was transformed into a large “laager,” in which the farmers sought protection for their families and stock.

Lesson 27.—Divisions of the Little Karroo.

[CHIEF CULTIVATED PLANTS: **Vine and Tobacco.**]

1.—The **Little Karroo** consists of a long narrow plateau lying between two mountain ranges (*vide* Lesson 9). Having a fertile soil and abundant streams, this district was occupied by the Dutch at an early period. It produces large quantities of wine, tobacco, and ostrich feathers. Access is gained to the coast westward through Bain's Kloof; and southward through Cogman's Kloof, Tradouw Pass, and Montagu Pass; whilst the Great Karroo is reached by Hex River Pass, Seven Weeks' Poort, Zwartberg Pass, and Meiring's Poort. The scenery in some of these passes is remarkable for its grandeur and beauty.



BAIN'S KLOOF PASS.

2.—**Worcester** is a mountainous district, and extends from the Drakenstein Mountains to the Klein Roggeveld. It is well watered by the tributaries of the Breede and Gouritz Rivers. The mountains are barren, but the valleys are rich, and "horn and corn, wool and wine," enable the farmer to multiply his sources of income. In Goudini and the Hex River Valley excellent raisins are produced.

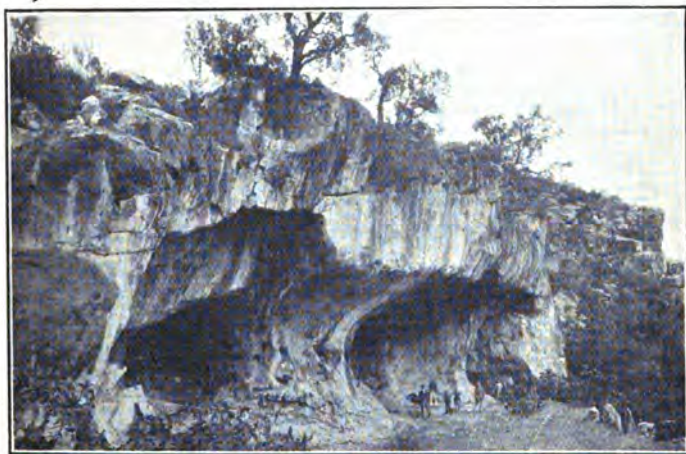
(i) **Worcester** (7,844) is a well-arranged town with broad streets, bordered by rows of gum trees and oaks. The neighbouring mountains are very imposing, and in winter are covered with snow. Milling and wagon-making are carried on. Nine miles distant are the hot springs of Brand Vlei. The water issues at a temperature of 145°. The waters are beneficial in cases of gout.

3.—**Robertson** is intersected by the Langeberg (= Long Mountain) range, whilst the Zonder Einde (= Endless) Mountains form the southern boundary. Along the Breede River and its tributaries are broad rich valleys, in which wine, brandy, and raisins are produced.

(i) **Robertson** (3,249), named after Rev. Dr. Robertson, is a neat Dutch village, of the usual type.

(ii) **Montagu** (1,986) is a village with hot baths in the vicinity.

4.—**Ladismith** is watered by the Groote (= Great) River; and wherever it can be irrigated the soil is amazingly productive, and the grapes grown are of the finest quality.



ENTRANCE TO CANGO CAVES.

(i) **Ladismith** (1,105) stands on the main road from Swellendam to the Great Karroo through Seven Weeks' Poort.

5.—**Oudtshoorn** consists of an undulating plateau, crossed lengthwise by the Olifant's River East. Ostrich farming, tobacco growing, and brandy distilling are the chief pursuits, and the division is one of the most fertile and thickly populated in the Colony. White farmhouses and cultivated lands meet the eye in every direction.

(i) **Oudtshoorn** (10,908), named after the Baron von Rheede von Oudtshoorn, is a thriving town on the Grobbelaar's River. It has two fine streets, over a mile in length, lined with willows and poplars.

(ii) The famous **Cango Caves** are in the Zwartberg range, twenty miles from Oudtshoorn. They are found in a limestone formation, which has been

hollowed out by underground streams. The caves extend for more than a mile into the mountain. The largest of the halls is 600 feet long, 100 feet broad, and 70 feet high. The dripping from above of water laden with carbonate of lime has formed, in the long course of years, splendid stalactites which hang from the roof, some of them 60 feet in length; whilst from the ground rise equally fine stalagmites that sparkle like white marble. Some resemble lofty candelabra, cups, and goblets; others are like trees and animals. One mass in particular bears an exact resemblance to the head of a bull. In the centre of one cavern rises a column fifty feet high, and nine feet in circumference, covered with filigree work. It might have been "raised by a giant and finished by a jeweller." The caverns near the entrance have been injured by thoughtless visitors, who have broken off some of the beautiful formations.

6.—**Uniondale** is a district of rugged hills covered with coarse herbage, and having rich valleys between. The farmers combine sheep farming and wine manufacture.

(i) **Uniondale** (1,437) is a quiet village, which wakes up to something like busy life once a quarter at the "Nachtmaal," the Sacrament of the Lord's Supper. When this quarterly service is held, the farmers for many miles distant attend in large numbers, as they do all through the Colony.

Lesson 28.—Divisions of the Great Karroo, I.

[CHIEF INDUSTRY: Merino Sheep and Angora Goat Farming.]

1.—The **Great Karroo** is a vast plain (*vide* Lessons 9 and 16A) covered with various dwarf bushes and scrubby plants that are able to resist a long drought. In fact, anything that cannot retain life for six or eight months without rain perishes. The sheep farms in the Karroo are generally of a considerable size, as a morgen of Karroo will not carry as many stock as a morgen of grass-veld; but the stock are subject to fewer diseases. The fuel of the Karroo districts, which are almost treeless, is chiefly sheep-dung, called "mest." Cut from the sheep kraals in sods, and properly dried, it makes a blazing fire which throws out great heat.

2.—**Ceres** lies between the Cold Bokkeveld Mountains on the west, and the Koedoes Mountains on the east, on the edge of the Great Karroo, where it breaks down by kloofs and tumbled hills to the coast levels. The division is well watered by the upper streams of the Olifant's River.

(i) **Ceres** (2,396) is a pretty English-looking town on the Dwars River, surrounded by mountains having a rugged volcanic appearance. The climate is dry and bracing. English fruits, such as apples, currants, gooseberries, and strawberries, can be grown to perfection.

3.—**Sutherland** is intersected by the Roggeveld Mountains, and nearly all the inhabitants of the division are sheep farmers.

(i) **Sutherland** (474) is a village about seventy-five miles from Matjesfontein, the nearest railway station.

4.—**Prince Albert** has for its southern limit the Zwartberg range, and is well watered by the Gamka and Dwyka, tributaries of the Gouritz River. The farms at the foot of the mountains yield good crops of grain, grapes, and tobacco. The Karroo portion carries sheep.

(i) **Prince Albert** (1,767) enjoys a good supply of water, and the inhabitants take great interest in the growth of fruit and flowers.

5.—**Beaufort West** contains some of the largest sheep-walks in the Colony. Some flock-masters have 20,000 sheep. The rainfall is not more than seven inches in a year, and dams for the storage of water are of great importance.

(i) **Beaufort West** (5,481) stands on the left bank of the Gamka. An immense reservoir has been constructed close to the town, enabling a large extent of land to be brought under cultivation.

6.—**Willowmore** and **Aberdeen** are two divisions that closely resemble each other. The chief industries are the growth of wool and mohair, although ostrich-farming engages a considerable amount of attention.

(i) **Willowmore** (2,166) is a trading village of the ordinary Colonial type.

(ii) **Aberdeen** (2,550) is near the Camdeboo Mountains, and with its trees and gardens is a pleasant village.

7.—**Murraysburg** is a country of uplands, the pasture being excellent for all kinds of stock.

(i) **Murraysburg** (1,262) is situated 4,000 feet above sea level, and has a climate of extreme variation of temperature. The summers are hot, but the winters are very cold.

Lesson 29.—Divisions of the Great Karroo, II.

1.—**Jansenville**, in the north, is undulating, with Karroo flats crossed by the "Zwart Ruggens" (=Black Ridges), and is devoted to sheep and Angora goats. Along the banks of Sunday River the soil is rich and deep, and yields excellent crops.

(i) **Jansenville** (1,248), named after Governor Janssens, is a thriving picturesque town on the Sunday River.

(ii) The Norse, a kind of Euphorbia, abounds on the flats. In a drought the thorns are burnt off, and then cattle and sheep eat it greedily.

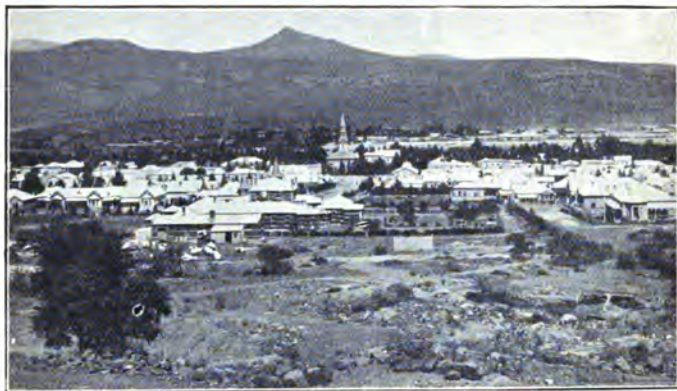
2.—**Graaff-Reinet** is a division famous for its Angora goat-farming. In the town and the country immediately surrounding it grapes of a very fine quality are produced. In the Camdeboo Mountains much of the land is cultivated.

(i) **Graaff-Reinet** (10,072), like Damascus, is a bright green spot in the midst of dry brown plains, and has hence been called "the Gem of the Karroo." It

is built within a horseshoe-shaped bend of the Sunday River, and is noted for its gardens and vineyards and fruit. The Dutch Church is a very handsome Gothic building. The town is named after Governor Van de Graaff and his wife, Reinet.

(ii) One of the hills overlooking the town is "Spandeanu Kop," not unlike a huge haystack in appearance. Beyond is a ridge of loosely piled rocks, "with pillars of basalt standing out in bold relief to the height of 300 or 400 feet, having a very picturesque effect." This spot is known as the "Valley of Desolation."

3.—**Somerset East** is crossed by the Boschberg and the Brintjes Hoogte (= Brown's Ridge), and possesses some of the most valuable farms in the Colony. Cattle, sheep, and horses thrive.



CRADOCK.

(i) **Somerset East** (5,210), named after Lord Charles Somerset, is pleasantly situated in the valley of the Little Fish River, at the foot of the Boschberg, which exhibits a magnificent front clothed with trees, varied with rocks and steep buttresses covered with green turf. Fern, abounding kloof, trees and waterfalls, make the neighbourhood a popular resort for visitors. In the town the finest building is the "Gill College," endowed by Dr. Gill, who left £28,000 for this object.

4.—**Cradock** is a plain about 3,000 feet above sea-level, and surrounded by mountains. The farmers devote great attention to sheep and Angora goat-farming, ostrich and horse breeding.

(i) **Cradock** (7,673), named after Governor Sir John Cradock, is situated on the Great Fish River, which is here spanned by a fine bridge. The air is dry, and the town is a favourite sanatorium for persons suffering from lung diseases. Its rainfall occurs chiefly in the form of thunderstorms.

5.—**Middelburg** consists of a high plateau covered with a mixture of grass and Karroo bush. Springs are abundant, and large breadths of land are cultivated. The winters are cold, and snow falls occasionally. The division is excellent for pastoral purposes. All kinds of stock thrive.

(i) **Middelburg** (6,139) is in the midst of an extensive plain, and is a favourite resort for invalids.

6.—**Steynsburg** is a small but very mountainous division on the summit of the great watershed of the Colony, having the Karroo plains on the south and the Orange River basin on the north.

(i) **Steynsburg** (830) is nearly 5,000 feet above sea level. The junction railway from Rosmead to Molteno passes through it.

Lesson 30.—Divisions of the Orange River Basin (left bank), I.

[CHIEF INDUSTRY: Sheep Farming.]

1.—The physical features of the **Orange River Basin**, especially from Colesberg westward, closely resemble those of the Great Karroo (*vide* Lessons 9 and 16A). The intense dryness of the air affects plant life, and vegetation consists of low scrubby bushes, or plants with thick fleshy leaves, in which moisture is stored up. Towards the east the rainfall increases, and the Karroo veld passes into rolling grass-covered hills intersected by rivers that flow throughout the year.

2.—**Calvinia** is as large as Yorkshire, but consists of immense tracts of barren country known as “Bushmanland.” There are no permanent streams, but water is procurable at a small depth below the surface. The Hantam mountain range in the south is healthy for horses, and when horse-sickness prevails in the lower districts, they are sent here to escape the disease. The middle belt of the division is suitable for sheep and ostriches.

(i) **Calvinia** (1,617), at the foot of the Hantam Mountain, carries on a trade in wool and ostrich feathers.

3.—**Fraserburg**, like Calvinia, is for the most part barren and thinly populated. A portion is called the “Trekveld,” inhabited by Boers who roam up and down with their flocks of Afrikaner fat-tailed sheep in search of pasture.

(i) **Fraserburg** (903), on the River Zak, is a village seldom visited by strangers. The average rainfall is about six inches.

4.—**Carnarvon** is a division of large sheep farms; the chief drawback is drought, which in some years is very severe. In the south are the Karee-berg (= Karee-tree Mountain).

(i) **Carnarvon** (1,869), named after the Earl of Carnarvon, is situated on the Olifant's Vlei River, and though on the outer edge of civilisation, possesses several well-equipped stores and a well-built church.

(ii) In the centre of the division is **Van Wyk's Vlei**, a vast artificial reservoir, 18 square miles in extent; it will hold thirty-five thousand million gallons of water, and it has enabled a large extent of land to be brought under cultivation.

5.—**Victoria West** consists of plains interspersed with ridges and kopjes that occasionally rise to the height of mountains. There is a great variety of good pasturage for sheep and ostriches.

(i) **Victoria West** (2,762) is laid out between two mountain ridges, and in a barren-looking country, where boulder-stones, dry beds of rivers, and dassies abound.

6.—**Prieska** is a waterless country, more or less occupied by farmers who live in tents or wagons and follow their flocks. The rainfall is from two to four inches in a year.

(i) **Prieska** (= Goat lost) (1,919) is within sight of the Doornberg range, and the climate is very beneficial to persons suffering from lung diseases.

7.—**Richmond** contains some very fine sheep farms. The whole division is a high plateau, five thousand feet above sea level, and is intensely cold in winter. There are no rivers, and few springs, but increased attention has been given in recent years to the construction of dams.

(i) **Richmond** (2,002) stands close to the Sneeuwberg, one of the coldest winter regions in South Africa. Snow occasionally falls in the streets of the town.

8.—**Hopetown** is a thinly-populated division, bounded on the north by the Orange River. In surface and soil it closely resembles Prieska. In this division diamonds were first discovered in 1867.

(i) **Hopetown** (1,494) is nine miles distant from Orange River Station on the Western Railway.

Lesson 31.—Divisions of the Orange River Basin (left bank), II.

1.—**Hanover**, in climate and soil, resembles the division of Richmond. Its great height above sea-level is attended with severe winters.

(i) **Hanover** (1,215) is an ordinary village with the streets at right angles to each other, and lined with willows, poplars, and oaks.

2.—**Phillipstown** is a plain, studded with numerous flat-topped hills. It is essentially a division for sheep.

(i) **Philipstown** (1,385), named after Sir Philip Wodehouse, stands midway between Hopetown and Colesberg.

(ii) **De Aar** (3,000) is an important junction and large railway camp.

(iii) **Britstown** (1,671) does an extensive business in wool, mohair and ostrich feathers.

3.—**Colesberg**, like Philipstown division, is a plain dotted with kopjes, and almost destitute of trees. The soil is a red clay, but in the valleys the black soil prevails, and there fine oat-hay is grown. The principal occupation of the farmers is sheep-farming and horse-breeding; the horses are of superior quality.

(i) **Colesberg** (2,670), named after Sir Lowry Cole, has few attractions. The deficient supply of water renders all culture extremely difficult. On the average there are not more than twenty rainy days in a year.

(ii) The plains of Colesberg at one time were tenanted by immense herds of wild game. Gordon Cumming, the famous hunter, says that in 1844 he saw at one time on these flats 30,000 springboks, besides gemsbok and gnu.

4.—**Albert** slopes from the Stormberg down to the Orange River. The winters are cold, and at night water sometimes freezes within doors. Sheep and cattle are bred with success. On the slopes of the Stormberg are two coal mines: Cyphergat and Molteno.

(i) **Burghersdorp** (2,894) was laid out in 1846, and the early residents complained that "lions and bushmen" were the plague of the neighbourhood. The lions attacked their cattle even at mid-day. Sir Peregrine Maitland, having modestly refused to have the place called after himself, the burghers gave the town its present name.

(ii) **Molteno** (2,703) **Coal Mines**, named after Sir John Molteno, the first Premier of the Colony, are entered at the side of a hill, and the seams, including the intervening shale, are 4 ft. 6 in. in thickness, and run horizontally underground.

(iii) **Cyphergat Mine**, six miles from Molteno, contains three seams of coal, 6 in., 4 in., and 16 in. thick, with layers of shale between. It is worked by galleries driven in the side of the hill.

5.—**Wodehouse** is famed for its breed of horses. The cultivation of grain is extensive. Great attention is paid to sheep-farming. There are valuable coal deposits at Indwe, in the Stormberg.

(i) The division is named after Governor Sir Philip Wodehouse.

(ii) **Dordrecht** (2,052) is one of the most elevated towns in the Colony.

(iii) The **Indwe** (2,607) **Coalfield** is in a spur of the Stormberg, and the coal lies horizontally under a sandstone cap. For three miles you can walk around the plateau where it falls away to the valleys below, and the coal will always be found at the same level. No shaft is sunk, but seams 8 ft. 6 in. in thickness are followed by tunnelling in the hill-side. There is no gas or fire-damp in the mines. It is connected by railway with the Eastern system, and the line is being extended to Maclear and will eventually reach Natal.

6.—**Aliwal North** is watered by the Kraai (=Crow) River. The eastern part is called New England, a cold, mountainous district, but which contains many excellent sheep farms.

(i) **Aliwal North** (5,557) is situated on the Orange River, and is named after a place in India where a decisive victory was won by Sir Harry Smith over the Sikhs. The town is supplied with water from hot sulphur springs situated about a mile distant. It is the terminal station of the Border line from East London. The Orange River is spanned by the "Frere" Bridge, a very fine structure.

7.—**Barkly East** is a mountainous district, and possesses a "bracing atmosphere, regular rains, and abundance of water." The winters are cold, but root-crops for stock can be easily grown, and sheep do remarkably well.

(i) **Barkly East** (1,177) is the highest town in the Colony, 5,831 feet above sea level.

8.—**Herschel** is occupied by natives—Fingos, Tambookies, and Basutos. Large quantities of wheat and maize (mealies) are grown. There are no towns or villages in this division containing European inhabitants.

Lesson 32.—Divisions of the Orange River Basin (right bank).

[CHIEF INDUSTRY: **Diamond Mining.**]

1.—**Griqualand West** lies north of the Orange River. It contains the divisions of Barkly West, Hay, Kimberley, and Herbert.

(i) Formerly the country belonged to the Griquas, but on the discovery of diamonds in 1867 it was speedily occupied by a large European population. It was claimed both by the Orange Free State and the British Crown. In 1871 the country was declared British territory, and in 1876 Britain paid the Free State £90,000 for its share of right. In 1889 it was incorporated with Cape Colony.

2.—**Griqualand West** is dry and dusty, being deficient in water, which, however, can be found in most places a few feet below the surface. The great wealth of the Province is in the Diamond Mines, which, in twenty-four years, have yielded 10 tons of diamonds of the value of £70,000,000.

(i) There are four mines: Kimberley, De Beers, Dutoitspan, and Bultfontein. It is supposed that they are the throats of mud volcanoes, and that the diamonds have been thrown up from great depths, for diamonds are carbon crystals formed under heat and great pressure, and are found in a hard

rocky formation, called "blue" from its colour. At one time the mines were huge open excavations, with miles of wire stretched from the edge of the reef to the depths below, and along which the "blue" diamond-bearing ground was hauled up in large iron buckets to the summit. But frequent slips of reef compelled the abandonment of open workings, and now the mines are worked by shafts and drives as in an ordinary coal mine. The diamondiferous "blue" is brought up the shafts to the surface, and is then spread out on floors until by the combined action of rain and sun it crumbles in the same way that quick-lime crumbles after being slaked. It is then conveyed to huge rotary washing machines, called "Pulsators," and after the lighter material has floated away, there is left a mass of black gravel mixed with agates, garnets, and diamonds. The sorting has to be done by hand. To prevent the theft of diamonds, the Kafir workmen are kept in large enclosures called "com-



WASHING PLANT, DE BEERS.

pounds," where they live, eat, and sleep, until their period of service is ended. They earn good wages, and are well treated.

(ii) A new mine has recently been opened at Wesselson, a mile east of Dutoitspan, the stones of which are of good quality.

(iii) **Kimberley** (34,260), named after Lord Kimberley, is the largest inland town of Cape Colony. It has greatly improved from the early days of the "diggings," when it was literally "a camp," and half the population lived under canvas. Now it is a town with miles of streets, elegant shops, and handsome villas. Numerous churches, a public library, a theatre, and a hospital are evidences of the industry and perseverance of the community. The town is supplied with beautifully soft and wholesome water from the Vaal River, and is lighted by electricity. It was besieged by the Boers in October 1899, and the siege lasted until February 1900, when Gen. French at the head of his cavalry relieved it, and the Dutch retreated.

(iv) **Beaconsfield** (9,456) is a town midway between Kimberley and Dutoitspan.

(v) **Barkly West** (1,378) is an old diamond digging on the Vaal. The bed and banks of the river are still searched, and valuable stones are occasionally found.

(vi) **Griquatown** (1244) produces crocidolite, a lustrous stone made into personal ornaments.

3.—**Bechuanaland** extends from Griqualand West to the Molopo River, and from the Transvaal border to the meridian of 20° E. It was annexed to Cape Colony in 1896. For administrative purposes the country has been divided into four Magistracies: **Mafeking, Vryburg, Taung, and Kuruman.**

(i) **Vryburg** (= Freetown) (2,984) is one of the best watered towns in Bechuanaland. The country adjacent is covered with rich grass, studded with trees and is well adapted for cattle and sheep.

(ii) **Taung** (2,714) is on the Harts River, and is the residence of the Batlapin, who grow mealies and corn, and trade with the Europeans.

(iii) **Kuruman** (1,860) is a Batlapin town, and was the scene of the missionary labours of Dr. Moffat, and for a short time of Dr. Livingstone.

(iv) **Mafeking** (2,712), on the Molopo River, consists of two towns two miles apart. One is a European trading centre; the other is the chief town of the Barolong. The former is linked to Cape Colony by the railway. It is surrounded by evergreen trees, which give it a pretty appearance. It was besieged by the Dutch in the recent war for more than six months.

(v) The rivers run only after thunderstorms, and are parts of the Orange River system. The **Harts and Dry Harts**, in the east, run into the **Vaal**. The **Molopo, Sitalgoli, and Kuruman** run into the **Hygap**. Surface water is scarce, but it has been found that in most places water can be obtained by digging wells. Sir C. Warren found water in this way for his large force during his expedition in 1884. The country is adapted for cattle-farming.

Lesson 33.—Divisions of the Eastern Uplands, I.

[CHIEF INDUSTRY: **Cattle and Sheep Farming.**]

[CHIEF CULTIVATED PLANTS: **Wheat and Maize.**]

1.—The **Eastern Uplands** present a remarkable contrast to the Karroo. Instead of a vast arid plain, a succession of hills and dales, grass-covered slopes and wooded kloofs descend in magnificent confusion from the heights of the Stormberg to the sea. Against these hills the moisture-laden winds from the Indian Ocean strike, to be condensed into frequent showers that enrich the landscape. Streams without number join to make the Great Fish River, the Keiskama, and the Kei. The pasturage is a short nutritious grass which becomes somewhat coarse and sour near the coast. Here and there are long sweeps of bush which, on the hillsides and in the valleys, becomes true forest with tall thick-stemmed trees; but generally it consists of evergreen succulent shrubs, like the spekboom and the guarri, or the hollow-skinned euphorbias, none of them growing higher than twenty feet. In this bush the Kafirs formerly had their strongholds. Now it is occupied by thriving farms, cattle, and agriculture.

2.—**Albany** is a division of grassy hills and plains, seamed by wooded defiles called “Poorts” or gates. Cattle and sheep farming are carried on successfully, and it is the largest district but one in the country for ostrich farming.

(i) **Grahamstown** (13,877) is one of the pleasantest towns of South Africa. It is situated amid the spurs of the Zuurberg, 1,800 feet above sea-level. Its wide streets lined with trees, its excellent Botanic Gardens, and its handsome Town Hall with its fine Library, combine with its genial climate to make it an attractive place of residence. Its schools and colleges for both sexes possess a high reputation for efficiency, whilst the establishment of the “Rhodes University” enables students to proceed to the acquisition of higher education. The local industries are tanning, wagon making, and the manufacture of jams. The town was founded in 1812 as a military post, and named after Colonel Graham, commander of the British forces in the war of 1811. It rose into importance as the chief town of the British settlers after 1820. The Museum is the best in South Africa, and is rich in antelopes and snakes.

(ii) **Salem** (400) was founded by the British settlers of 1820.

(iii) **Riebeeck East** (350), named after Van Riebeeck, the first Dutch commander, is in the midst of a sheep and cattle-farming population.

3.—**Bedford** is a very fine pastoral division, suitable for all kinds of stock, to the improvement of which great attention is paid. Large quantities of butter are made.

(i) **Bedford** (2,257) occupies a pleasant position at the foot of the Kaga Mountain. It was founded by Sir Andries Stockenstrom, and named after his personal friend, the Duke of Bedford. In the neighbouring forest the cutting of timber is extensively carried on.

(ii) **Adelaide** (1,410) is placed in the midst of mountains.

4.—**Fort Beaufort** is rugged in the north, and undulating and well-watered in the south. The pasturage has ceased to be healthy for sheep, caused by the insect pest, the tick. Much dairying is carried on.

(i) **Fort Beaufort** (1,690) is almost surrounded by the windings of the Kat River, and was formerly a military station. In 1851 the town was attacked by Kafirs and Hottentots under Hermanus. They were repulsed, and Hermanus was killed.

(ii) **Healdtown** is an educational institution for Natives.

5.—**Stockenstrom**, named after Sir Andries Stockenstrom, contains many valuable sheep farms. On the Kat River excellent tobacco is grown.

(i) **Seymour** (494) is a village at the foot of the Katberg.

(ii) The **Kat River**, a tributary of the Great Fish River, was formerly occupied by Hottentots; but after their rebellion in 1851, the settlement was broken up, and much of the land is now occupied by English farmers.

Lesson 34.—Divisions of the Eastern Uplands, II.

1.—**Victoria East** is a terrace flanked on each side by deep kloofs clothed with forests and opening out into beautiful valleys. It lies between the **Kat** and **Keiskama** Rivers. The inhabitants are principally **Fingos**, a **Zulu** tribe which was released from slavery to the **Gaikas** and **Gcalekas** at the close of the war of 1834.

(i) **Alice** (1,217), named after the second daughter of Queen Victoria, was known in the war of 1851 as **Fort Hare**.

(ii) **Lovedale** (1,100) is an important educational and industrial training institution for Natives.

2.—**King-Williamstown** division consists of a succession of terraces rising from the coast and separated by mountains that are covered with extensive forests. The **Pirie Bush** extends from near **King-Williamstown** to the **River Keiskama**, and here **Sandille** made his last defence in the **Gaika** war of 1878.

(i) **King-Williamstown** (9,500), frequently called "**King**," is named after **King William IV.**, and is built on a plain at the base of the **Amatolas**. The **Buffalo** River flows through the town. The finest buildings are the **Town Hall**, the **Court House**, and the **Grey Hospital**. The local industries are wool-washing, flour, and saw milling, candle and match making. The town owes much to the careful husbandry of the **German** settlers in the environs at **Briedbach**, **Yellowwoods**, and **Izeli Valley**.

3.—**Stutterheim** is undulating in the north, but in the south has extensive forests, which are a continuation of the **Pirie Bush**. It is a sheep-farming district.

(i) **Stutterheim** (1,209) is a village of **German** settlers, situated at the foot of the **Amatola** Mountains, and is named after **Baron Stutterheim**, commander of the **German Legion** in the **Crimean War**.

4.—**Cathcart** contains much high-rolling country, and is famous for its sheep farms.

(i) **Cathcart** (1,752), named after **Sir George Cathcart**, is a village on the **Eastern Railway** with a flourishing trade.

5.—**Queenstown** is a division of broad plains, crossed by mountain ranges, and constantly-flowing rivers. It contains some of the most valuable cattle and sheep farms in the **Eastern Uplands**. Great quantities of wheat are grown.

(i) **Queenstown** (9,586), named after **Queen Victoria**, is laid out in a unique manner. All the streets converge to the **Market-place**. This construction was adopted so that, in case of an attack from hostile Natives, all the streets could be commanded from the centre. The winters are cold, and on the hills above the town snow is frequently seen.

(ii) **Whittlesea** (401), on the Black Kei River, was repeatedly attacked by the Kafirs in the Great Rebellion of 1851, but was gallantly defended by Captain Tylden and Mr. T. H. Bowker.

6.—**Tarkastad** comprises the watersheds of the Tarka and the Black Kei, at an average elevation above sea-level of 4,000 feet. The pasture is suitable for every kind of stock.

(i) **Tarkastad** (2,271) is situated on the main road between Cradock and Queenstown. It possesses a dry and invigorating climate, and it is said that a knife left out in the veld for a year will not rust.

Lesson 35.—Kaffraria.

1.—**Kaffraria** extends from the Great Kei River to Natal. It includes the **Transkei, Tembuland, Bomvanaland, Pondoland, and Griqualand East.**

(i) This territory is one of the finest in South Africa. The land slopes down gradually from the Drakensberg to the sea by miles of bush and forest and grass. It is watered by numerous streams that form the Kei, Bashee, Umtata, and St. John's Rivers. It is tenanted by Natives, who possess herds of cattle and flocks of sheep, and are each year extending the cultivation of the ground. Schools and Mission Stations abound; and by the repression of heathenish customs, the Natives are gradually being prepared to receive a high state of civilization. Greater attention is required to instruction in industrial pursuits.

(ii) **Kaffraria** is divided into districts, in which Resident Magistrates have jurisdiction in all minor cases. The more serious cases "are tried at the Circuit Court by a single judge, who sits with a jury in criminal cases, but alone in civil."

2.—The **Transkei** comprises the country between the Kei and the Bashee. In the west it is inhabited by **Fingos**. In the centre, called the **Idutywa Reserve**, is a mixed population of **Fingos** and **Gealekas**. The coast is occupied chiefly by **Gaikas**. Population, 153,000.

(i) **Butterworth** (567) is the principal village of this district.

3.—**Tembuland** stretches from the Upper Kei and the Bashee to the Umtata River, and lies north and east of the Transkei. It is an excellent pastoral country, occupied by **Tembus**. In Emigrant Tembuland are extensive forests. Population, 160,000.

(i) **Umtata** (2,329), the chief town, is situated on the river of the same name.

(ii) Emigrant Tembuland, on the west, is occupied by **Tembus** who were allowed to settle there when their locations in Queenstown division became overcrowded. Land has also been allotted to European farmers.

4.—**Bomvanaland** lies on the coast between the Bashee and the Umtata, and is south-east of Tembuland. Population, 20,000.

(i) The Bomvanas used to acknowledge Kveli as their over-lord, but they are now under Colonial rule.

5.—**Pondoland** extends along the coast from the Umtata to Natal. Population, 200,000.

(i) The **Pondos** are not so warlike as the other native tribes nearer to the Colony. They still use the assagai and the shield, and adhere to most of their heathen customs. Pondoland was annexed to Cape Colony in 1894.

6.—**Griqualand East** lies between Tembuland and Natal. It is a fine district for sheep and for agriculture. Population, 152,000.

(i) Part of this country was given to the Griquas under Adam Kok; but there are also Natives of various tribes, as Bacas, Basutos, and Fingos.

(ii) **Kokstad** is the chief town of the district.

Lesson 36.—Basutoland.

1.—**Basutoland** is “a land of table-topped hills and deep valleys, of magnificent scenery and rugged grandeur.” It is the “keystone of South African structure, the head of its water system, and the summit of its surface.” The climate is cool in summer and very cold in winter.

(i) **Basutoland** has an area of 10,000 square miles, and is therefore nearly the size of Switzerland.

2.—The **Drakensberg** range separates Basutoland from Natal. The **Maluti** Mountains run parallel to the Drakensberg, through Basutoland. Between the Malutis and the Drakensberg is the head stream of the Orange River; in a valley between two branches of the Malutis flows the Kornet Spruit; and the Caledon River separates Basutoland from the Orange River Colony.

(i) The Drakensberg and Maluti ranges average about 9,000 feet above the sea, and attain their highest points in the Mont-aux-Sources and Cathkin Peak. The mountains are supposed to be rich in coal, but the jealousy of the people has prevented its extent from being ascertained.

3.—Basutoland is well watered, and produces large quantities of wheat, Kafir-corn, and wool. It is a fine grassy country, suitable for all kinds of stock.

(i) The Basutos possess about 200,000 cattle, 250,000 sheep, and 35,000 horses. Mountain ponies are bred in great numbers. These animals are very hardy, and may rank with the famous Exmoor ponies for sure-footedness in climbing the rugged mountains.

(ii) The Basutos are very industrious, and export each year about 4,000 bales of wool and 100,000 bags of grain. They import blankets, ploughs, saddles, and clothing.

4.—Basutoland is a British Crown Colony, and is divided into magisterial districts: **Maseru, Berea, Kornetspruit, Leribe, Quthing, and Thaba Bosigo.**

(i) **Maseru** is the capital, and the place of residence of the British Commissioner, officials, and police. There are few white men in Basutoland.

(ii) **Thaba Bosigo** (= Mountain of Night) is a hill 400 or 500 feet above the surrounding plateau, flat-topped and covered with huts. This was one of the strongholds of Mshweshwe (Moshesh), the "Conqueror."

(iii) **Berea** was another table-topped stronghold of Mshweshwe. Here an engagement was fought between the Basutos and the British under Sir G. Cathcart in 1852.

5.—The **population** of Basutoland is about 250,000.

(i) The Basutos dwell chiefly in the western districts of Basutoland; the east being very cold in winter. They are a progressive people, and owe much to the French missions amongst them. They are under British rule, but are largely governed by their own laws, which are made and proclaimed in great meetings called "Pitsos." The chiefs adjudicate on most matters between Natives, who have a right of appeal to the nearest Magistrate's Court. A hut-tax defrays the cost of government.

Lesson 37.—Natal: Surface, etc.

1.—Natal is bounded on the north by Tongaland and the Transvaal: on the west by the Drakensberg range; and on the south by the Umtamvuna and Umzimkulu Rivers.

(i) Natal has an area of 35,000 square miles, and is a little larger than Scotland, or in size one-ninth of that of Cape Colony. Its rich vegetation entitles it to be called "the Garden of South Africa."

(ii) **Natal** (*Natalis*, Latin) is the Portuguese, as *Nôel* is the French, name for Christmas.

2.—The **coast-line** is even in outline, and is 340 miles in length.

(i) In most parts the coast is fringed with dangerous reefs. The harbour of Durban is the only important opening. St. Lucia Lake is a large lagoon, thirty-five miles long, but shallow and unhealthy, in fact, little more than a muddy swamp.

3.—The **surface**, like that of Cape Colony, rises in three distinct terraces from the sea to the base of the Drakensberg, the great watershed of South Africa.

(i) The **Coast terrace** is about twenty miles in width, and rises to the height of 1,000 feet. It is rich in bush and glade, and bright blossoms.

(ii) The **Midland terrace** is about thirty miles broad, and attains a height of 2,400 feet. It has in many parts the appearance of the Sussex Downs, rolling sweeps of grass.

(iii) The **Upland terrace** extends from about Howick to the foot of the Drakensberg, and is from 3,000 to 4,000 feet above the sea.

4.—The principal mountain-range is the **Drakensberg**, from which jut out eastward the **Biggarsberg** in the north, and the **Mool River Heights**, which cross the middle of the country.

(i) In the Drakensberg, on the border of Natal, are found the highest mountains in South Africa: **Cathkin Peak** (12,000 ft.); **Giant's Castle**, with its castellated lines (11,000 ft.); **Mont aux Sources** (11,000 ft.); or "Mountain of



Springs," on the slopes of which rise the Tugela, the Vaal, the Orange, and the Caledon Rivers.

5.—The chief rivers are the **Tugela** (= Startling the bathers by its force and depth), with its tributaries, the **Buffalo** and **Sunday** Rivers on the left, and the **Mool** (= Pretty) and **Bushman** Rivers on the right bank; the **Umvoti** (= the Milk-giver); the **Umgeni** (= Flows to the sea); the **Umkomanzi** (= Heaped up water, as by the tide); the **Umzimkulu** (= Tshaka's Great Kraal); the **Umfolosi** and the **Umkosi**.

(i) The rivers rise on the slopes of the Drakensberg and flow right across the country to the sea. None of them are navigable, as rapids and cascades abound in their courses.

(ii) The **Tugela** is the noblest river in Natal. It leaps from its source in



HOWICK FALLS.

the "Berg" over a fall 1,800 feet high, and then rushes through a cañon two miles in length. Throughout its whole course the scenery is picturesque, and often grand. Flooded by heavy rains, it arrested the victorious hosts of Cetewayo in 1879 after the disaster of Isandlwana.

(iii) Twelve miles from Maritzburg, at Howick, the **Umgeni** falls over a precipice of trap rock, 364 feet high, into a broad, deep pool, the rocks around being clothed with trees and ferns and flowers. Not a single ledge breaks the effect of the fall. Trout have been put in the river above the falls.

(iv) The **Umfolosi** flows into the South, and the **Umkosi** into the North of St. Lucia Bay.

Lesson 38.—Natal: Climate, Productions, etc.

1.—Natal has three varieties of climate, that correspond to its three terraces.

(i) On the **Coast** the climate is sub-tropical. Thunderstorms are frequent. The air is warm and moist. The average temperature is 69° and the average rainfall about forty inches annually.

(ii) On the **Midland Terrace**, which is about 2,000 feet above the sea, the air is drier and cooler. The rainfall is less. The average temperature is 64° and the rainfall thirty-six inches. Pietermaritzburg stands on this terrace.

(iii) The **Uplands** are bracing and cold, and slope up to the Drakensberg, which in places is 10,000 feet in height and in winter is covered with snow.

(iv) The rains are principally in the summer. Of the average annual rainfall three-fourths fall during the summer months, when thunderstorms are frequent, and the lightning is brilliant and dangerous.

2.—The Productions of Natal vary according to the climate and locality.

(i) In the warm moist **Coast** terrace, sugar, arrowroot, tea and tobacco grow readily. The pine-apple, banana, guava, loquats, grenadillas, mangos, and other delicious fruits flourish. The sugar-cane was introduced from Mauritius. Arrowroot is grown on land not good enough for sugar, and is little affected by changes of weather.

(ii) In the **Midlands** wheat, oats, barley, maize and Kafir-corn are cultivated. Five-sixths of the tilled land are planted with maize and Kafir-corn. Apples, peaches, mulberries, and grapes grow luxuriantly.

(iii) The cooler **Uplands** are devoted chiefly to the grazing of cattle and sheep. Northern fruits, as the gooseberry, plum, apple, and pear, can here be grown.

(iv) Natal has considerable pastoral resources. It possesses 1,000,000 sheep and goats, and about 700,000 cattle.

3.—Natal has valuable **Coal-fields**.

(i) It is supposed that there are 1,500 square miles of workable coal. In some places the coal seams are ten feet in thickness, and are visible on the surface. The coal is of excellent quality. Iron ore is found near the coal, and there is a prospect that, with capital and labour, Natal may become the Staffordshire of South Africa.

4.—The characteristic wild animals of Natal are the **Hippopotamus**, the **Crocodile**, the **Turtle**, and the **Python**.

(i) Most of the wild animals of Cape Colony are found in Natal, as the leopard, jackal, ant-bear, porcupine, vulture, secretary-bird, cobras, and adders.

(ii) The **Hippopotamus** still haunts the lower reaches of some of the rivers, and sea-cow lakes have yet "sea-cows" in them. But they are gradually disappearing. This huge animal swims and dives with great ease, and often walks along the river bottom completely under water. The hippopotamus is gregarious, collecting in herds of twenty or thirty in number and making the air resound with extraordinary snorts. Protected by a hide one inch and a half in thickness, it is vulnerable only behind the ear and in the eye. Its flesh resembles fine pork.



HIPPOPOTAMUS.

(iii) The **Crocodile** is occasionally found in the less frequented rivers. Its eggs are about the size of goose eggs, and are laid in holes on the banks. This terrible creature is vulnerable only in the eye or the throat. Its hide is of considerable commercial value as a covering for ornamental bags.



CROCODILE.

(iv) **Tortoises** or **Turtles**, sometimes weighing as much as 700 lbs., are found in the lagoons and near the mouths of rivers.



TORTOISE.



PYTHON.

(v) The **Python**, often 20 feet long, is a true boa-constrictor, being destitute of poison fangs, and swallows its prey whole after it has mangled and crushed the body in its powerful folds.

(vi) The most poisonous snakes are the **Mambas**—black, blue, and green.

Lesson 39.—Natal: Inhabitants, etc.

1.—Natal has a population of 1,108,754 persons, consisting of Europeans, Zulus, and Coolies.

(i) Natal is four times more thickly populated than the Cape Colony, having 27 persons to the square mile.

2.—The **Europeans** number about 97,000.

(i) The **English** are found mostly in the towns, on the coast, and in the midlands. The farmers in the upper districts are Dutch.

3.—There are about 824,000 Zulus.

(i) **Zulu** means "celestial." Despite the high-sounding title, the Zulus were originally a small tribe of "tobacco sellers" to other tribes. They were drilled into a powerful nation by Tshaka, "the Napoleon of South Africa," who taught them to fight with the short stabbing assagai. Tall, erect, muscular, they are physically the finest native race south of the Zambesi. Since the war of 1879, in which Cetewayo was overthrown, the warlike spirit of the Zulus has declined, and now they are peaceful. Their wealth consists in cattle, of which they possess a dwarf breed, which has a smooth skin and a hump on the shoulders. The Zulus are but slightly removed from barbarism.

4.—The **Coolies** are over 100,000 in number.

(i) **Coolies** (the Hindustani word for "labourers") have been introduced from India to work in the sugar and tea plantations. After their term of



RAILWAY STREET: ENTRANCE TO RAILWAY STATION, DURBAN.

service has expired, many remain and work as grooms, gardeners, and hawkers.

5.—Natal is a **British Colony**.

(i) Responsible government was granted to Natal in 1893. The Governor is appointed by the King, and is assisted by an Executive Council, which consists of the five members who form "the Ministry," viz.:—The Colonial Secretary, Treasurer, Attorney-General, Secretary for Native Affairs, and Minister of Land and Works.

(ii) Parliament consists of two Chambers:—The Legislative Council, which is composed of 12 members; and the Legislative Assembly, which is composed of 39 members.

6.—The **Revenue** is derived from railways, customs, and a native hut-tax.

(i) The public debt is £12,000,000, incurred for railways and other public works.

7.—The principal exports are wool, sugar, coal, hides, maize, tea, and arrowroot.

(i) Sugar, tea, and arrowroot are grown on the Coast belt; maize on the Midland terrace; and wool is the product of sheep farms on the Upland districts.

8.—The chief imports are clothing, rice, timber, machinery, coffee, and flour.

9.—A Railway connects Durban with Pietermaritzburg, and with Charlestown on the extreme northern border, a distance of 304 miles. There is a branch line from Ladysmith through Van Reenen's Pass to the Orange River Colony, and another from Durban to Tugela, in the north, which passes through the sugar districts; and one from Durban to Port Shepstone in the south.

(i) The railway is continued from Charlestown to Pretoria in the Transvaal. The Natal railway is remarkable for its sharp curves and steep gradients. It runs along the edge of precipices, and round crags, and at places the train is reversed, the engine being attached to the other end. And still the train ascends until Charlestown is reached, which is 5,300 feet above Durban.

Lesson 40.—Natal: Counties and Towns.

1.—Four Counties are situated on the Coast Terrace: Alfred, Alexandria, Durban, and Victoria.

(i) Durban (67,800), named after Sir Benjamin Durban, Governor of Cape Colony in 1834, is the seaport of Natal and its largest town. It is built on the north side of a beautiful lagoon completely land-locked and dotted with islands. The entrance to the harbour is between "The Point" and "The Bluff," the terminal points of two ranges of hills, but a 'bar' of sand blocked the way for large ships, until it was removed by dredgers. Inside the Point are the landing-places, wharves, and coaling jetties. Durban was originally laid out by the Dutch. The streets, once axle-deep in sand, are now macadamized. The Public Gardens form a pleasant open space in the centre of the town. The finest building is the Town Hall, and the principal thoroughfares are West Street and Pine Street. The "Berea," a wooded height over-looking the harbour, is clustered with many handsome villas, and here the climate is cooler than down in the town, as there is generally a wind from the sea.



(ii) Pinetown (30) is a quiet but exceedingly healthy village about fifteen miles from Durban. In the vicinity are the Umbilo waterworks, which supply the port with water.

(iii) **Verulam** (1,325), snugly situated on the Umhloti River, is the centre of the chief sugar-producing district. It is connected with Durban by rail.

(iv) **Stanger**, named after Dr. Stanger, is near to Zululand, and close to it is the burial-place of the great Zulu chief, Tshaka, the "Old Lion."

2.—Two Counties lie on the Midland Terrace: Pietermaritzburg and Umvoti.

(i) **Pietermaritzburg** (31,000) was originally founded by two leaders of the Dutch emigrant farmers, Pieter Retief and Gert Maritz after whom the town was named, but it is now shortly called Maritzburg, and is the capital and the seat of Government. Eight parallel streets, a mile and a half long, are crossed at convenient intervals by other streets, and along the sides run water-



PIETERMARITZBURG.

courses fringed with trees. Its dark brown soil, its bright red-brick houses covered with tiles, its rose hedges, its trees, and its gardens, give it the appearance of a large English town. The Government buildings are very handsome, and churches and a college add to the architectural beauty of the town.

(ii) **Richmond** (150) is the centre of a good agricultural and pastoral district.

(iii) **Greytown** (2,436), the only village in Umvoti county which is noted for its sheep farms and wattle plantations.

(iv) **Howick** is near the River Umgeni, and the Falls on the river are a great attraction, as they are 364 feet high, and when swollen by rain are magnificent.

3.—Two Counties are situated in the Uplands: Weenen and Klip River.

(i) **Weenen** (=Place of Weeping) (1,619) lies in a cup-shaped valley, and on this spot many of the Dutch emigrants from Cape Colony were murdered by Dingaan in 1838. The district is now agricultural, and yields heavy crops of grain and tobacco.

(ii) **Ladysmith** (5,560) is the third town of importance in Natal, and was besieged by the Dutch for several months in the late war.

(iii) **Newcastle** (2,950) and **Dundee** (2,810) are two rising towns standing on an extensive coal-field.

(iv) **Rorke's Drift**, on the Tugela, was gallantly defended in 1879 by Lieutenants Chard and Bromhead, and a Company of the 24th Regiment, against four thousand Zulus, until the baffled foe retreated.

(v) **Charlestown** is at the extreme north of Natal.

4.—**Two Counties lie North of Zululand, and were added to Natal from the Transvaal in 1902 : Vryheid and Utrecht.**

(i) **Vryheid** (2,280) is in the midst of a coal-bearing district.

(ii) **Utrecht** (860) is situated in a low warm district, useful in winter for grazing live-stock.

5.—**Zululand is inhabited almost exclusively by Zulus, about 200,000 in number, who are governed by a resident Commissioner responsible to the Governor of Natal. For purposes of government the country is divided into six Magistracies.**

(i) **Etshowe** (1,850) is the capital of British Zululand.

(ii) **Isandlwana** (=the little hand) was the scene of the disastrous attack on the British forces in 1879, when 10,000 Zulus suddenly surrounded the British Camp, and 500 soldiers and 1,000 Native allies were killed.

(iii) **Ulundi** was the residence of Cetewayo and the scene of his final overthrow.

(iv) The Zulus are a pastoral people, and possess large herds of cattle. They live in locations under their own chiefs, who are subject to the magistrates. All natives pay an annual hut-tax.

Lesson 41.—Orange River Colony : Surface, etc.

1.—**The Orange River Colony is bounded on the north by the Vaal River ; on the south by the Orange River ; on the east by Basutoland and Natal ; and on the west by Griqualand West and the Transvaal.**

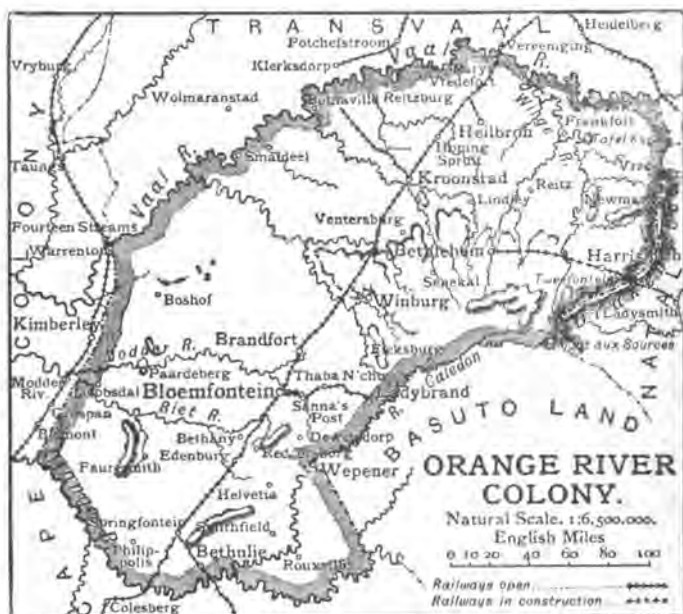
(i) Its shape somewhat resembles a bean ; and its area is about 50,000 square miles, or one-fourth the size of the Cape Colony.

2.—**The surface is one vast plateau, having an altitude of four thousand feet above sea-level. Mountains are found only in the east, where the Malutis enter the land. The greater portion of the country consists of grassy plains, dotted over with kopjes (= little heads), and destitute of trees except in the west, where mimosas are scattered over the veld in considerable numbers.**

(i) The rivers are fringed with trees, chiefly the willow and the mimosa.

3.—The colony is almost surrounded by rivers, yet no main-trunk river runs through it. The **Wilge** (= Willow), the **Valsh** (= False), the **Sand**, the **Vet** (= Fat), the **Modder** (= Mud), and the **Riet** (= Reed), are tributaries of the **Vaal** (= Yellowish-brown); and the **Caledon** is a tributary of the Orange River. Most of them traverse the country from east to west and north-west.

(i) Many of the rivers are broad and smooth, and not unlike English rivers, but, being shallow, none of them are available for traffic.



(ii) The **Vaal** rises in the Transvaal, touches the frontier of the Colony at its junction with the Klip River, and with a gigantic bend flows westerly to its junction with the Orange River.

(iii) At the base of the Wittebergen (= White Mountain) is a long narrow lake known as **Liebenberg's Vley**, which sends its surplus waters into the Liebenberg River, an affluent of the Wilge.

4.—The **climate**, especially to the west of the country, is remarkable for its dryness. In consequence of the altitude of the country and its inland position, the winters are colder and the summers are

warmer than in the Cape Colony. In summer there are often violent thunderstorms.

(i) Long droughts sometimes prevail. The Drakensberg checks the rain from the east; the Stormberg acts in a similar way in the south; whilst on the north-west are the dry plains of the Kalahari.

5.—The Orange River Colony is a **pastoral country**, and on its extensive grassy plains sheep, cattle, and horses thrive remarkably well.

(i) In the eastern portion, called the "Conquered Territory," because conquered from the Basutos, agriculture is largely carried on, as it receives frequent rains, and is known as the "Granary of the Country." In other districts farmers can only obtain crops where irrigation can be carried on. Dams for this purpose are now becoming common.

6.—There are 385,045 **Inhabitants**. Of these 143,419 are Europeans, and 241,626 are coloured people.

(i) The Europeans are principally Dutch; a few English are found in the towns, engaged in trade. The coloured people are chiefly Bechuanas. There is an average of $3\frac{1}{2}$ persons to the square mile.

7.—The Colony possesses several useful **Minerals**.

(i) **Coal** has been found along the Vaal River in the district of Heilbron, along the same river in the Winburg district, and near Kopje Alleen in the Kroonstad district. It is in great demand at the Kimberley diamond mines. Ironstone is found with the coal formations.

(ii) **Gold** has been discovered near the towns of Parys and Heilbron, in the north of the country.

8.—The principal **exports** are **wool** and **diamonds**.

(i) There are about 6,000,000 merino sheep in the State, and each year about 60,000 bales of wool are produced.

(ii) **Diamonds** are found at Jagersfontein and Koffyfontein, near Fauresmith, and at Olifantsfontein, in the Boshoff district.

9.—The **wild animals** are similar to those of Cape Colony.

(i) At one time the plains abounded with springbok, blesbok and gnu, but they have been almost exterminated. Sir A. Cunningham says that in one year a single merchant purchased 70,000 antelope skins shot between Kroonstad and Bloemfontein. This was in 1873.

(ii) The country, in common with the rest of South Africa, is subject to attacks from **locusts** which form swarms often miles in length, and their red gauze-like wings flash in the sunlight. With a moderate favourable wind they can fly from ten to twenty miles a day. Their appetite is voracious.

"They come, like a raging fire in power,
And eat up a harvest in half an hour!"

At their approach every one is in fear except the Bushman, who has no crops to lose, and who sees in them an abundance of food. The insects are caught,

roasted, and eaten. Dr. Livingstone speaks of them as superior to shrimps. Where the locusts settle, they lay their eggs, which are hatched by the heat of the sun, and in about eight weeks they acquire wings.

(iii) This pest has two enemies: a locust-eating thrush (*Glanola Nordmanin*), which appears in flocks during the autumn, and devours grasshoppers, which then infest the veld; and a stork (*Ciconia Alba*), which is only seen in locust years. The execution the latter birds commit on the flying locusts is enormous. With a snap of their sharp mandibles they cut off the wings, and then swallow the body. So quickly is this done that there is a perfect shower



GOVERNMENT BUILDINGS, BLOEMFONTEIN.

of falling wings, and the attack is continued for hours. But the complete destruction of this insect pest can be accomplished only by the vigilant and united efforts of the farmers before the insects have arrived at their winged condition.

10.—A **Railway** connects Bloemfontein with the Cape railway system at the Orange River, near Colesberg. This line is continued northward to Pretoria. Another line from Harrismith gives access to the Natal railway system. Cheap and speedy transport are developing the mineral resources of the country.

Lesson 42.—Orange River Colony : Districts and Towns.

1.—There are six districts in the south : **Fauresmith, Phillpols, Bethulie, Rouxville, Caledon River, and Wepener.**

(i) **Fauresmith** (934) is of importance because of its nearness to the diamond mine at **Jagersfontein** (5,650). The diamonds found are of very fine quality, and reach the value of £500,000 each year.

(ii) **Phillpols** (804) is a primitive, quiet town, with one narrow street, formerly the residence of Adam Kok and his people before their removal to Griqualand East.

(iii) **Bethulie** (1,671) district is rich in springs, and is well adapted to agriculture. Coal has been found nine miles distant from the town.

(iv) **Rouxville** (993) is a healthily-situated town ; and the eastern portion of the district produces good wheat.

(v) **Smithfield** (1,008) is a prosperous little town in the Caledon River district.

(vi) **Wepener** (1,366) is both a pastoral and an agricultural district. It is named after Commandant Wepener, who was engaged in the Basuto war of 1865-67.

2.—There are seven districts in the middle of the Orange River Colony : **Jacobsdal, Boshof, Bloemfontein, Winburg, Moroka, Ladybrand, and Ficksburg.**

(i) **Jacobsdal** (763) is on the Riet River.

(ii) **Boshof** (1,302) is a well-laid-out town on the main road from Bloemfontein to Kimberley, with which latter town it does a large business in wool and other farm produce.

(iii) **Bloemfontein** (= Flower Fountain) (33,000) is pleasantly situated in a valley formed by the Bloem Spruit, a tributary of the Modder River. It is the seat of Government, and the finest buildings are the Government offices. The city possesses numerous and excellent colleges and schools for both sexes, the chief of which are the Grey College, founded by Sir George Grey, and the "Ladies Government Institute." Fuel is scarce. To the south stands a monument erected in honour of those who fell in the Basuto war of 1865-68. The town is supplied with water from the Modder River at Sannah's Post, twenty-two miles distant. The climate is known for its health-giving properties to those who suffer from chest complaints.

(iv) **Winburg** (2,521) and **Senekal** (1,089) stand in the midst of prosperous sheep and cattle districts.

(v) **Moroka** lies to the east of Bloemfontein, and for many years was occupied by the Barolongs, over whom Moroka was chief. At his death he appointed Sepinaré, his son, as his successor. Samuel, another son, killed Sepinaré, and, anarchy ensuing, the district was annexed by the Free State Government in 1881. **Thaba 'Nchu** (1,134) is the principal town.

(vi) **Ladybrand** (3,207), named after Sir J. Brand's wife, is in the Conquered Territory. "It is small and quiet, but prettily situated."

(vii) **Ficksburg** (1,932) is also in the Conquered Territory, and carries on a considerable trade in grain and flour.

3.—There are five districts in the north : **Hoopstad, Kroonstad, Heilbron, Bethlehem, and Harrismith.**

(i) **Kroonstad** (5,797) used to be named "Riemiaand" from the immense herds of blesboks which formerly roamed the country, and which were shot by the Boers to make "riems" from their skins. Along the Vaal gold reefs have been discovered, and good coal has been found in the north-west. The busy town is prettily situated on the Valsch River, which affords good fishing and boating.

(ii) **Bethlehem** (1,781) is situated in a very fertile region. In the Market-place is a stone monument in memory of a battle fought between the Boers and Basutos in 1866.

(iii) **Heilbron** (1,544) and **Vrede** (1,530) lie out on the veld, where sheep farming is extensively carried on.

(iv) **Harrismith** (5,306), named after Sir Harry Smith, lies in a shallow basin near the Drakensberg. Countless vultures make their home in the weird-looking crags. The town stands on the main trade route to Natal *via* Van Reenen's Pass. Two miles distant is a mountain called Platberg, and from a lake on its summit the town is supplied with water. Half-way up is a Bushman's cave, with paintings in red clay of buffaloes, ostriches, and antelopes.

Lesson 43.—Transvaal: Surface, etc.

1.—The boundaries of the Transvaal are Natal and the Vaal River on the south; the Limpopo River on the north; the Lobombo Mountains and Zululand on the east; and Bechuanaland on the west.

(i) Its area is 120,000 square miles, or about the size of Italy.

2.—The principal mountains are the **Magaliesberg**, extending from Rustenberg to Pretoria, the **Witwatersrand**, the **Waterberg** (= Water Mountain), and the **Zoutpansberg** (= Saltpan Mountain) in the northern districts; and the **Drakensberg** (= Dragon Mountain), which should not be confounded with the Natal watershed of the same name, are in the east.

(i) The highest peaks in the Drakensberg are **Mount Ingwenya**, 7,480 feet, and **Maunohberg**, 7,177 feet; and throughout the country are found many hills and kopjes, generally table-topped.

(ii) The **Rand** is a narrow strip of high rolling veld about sixty miles long, in which the famous gold reefs are found.

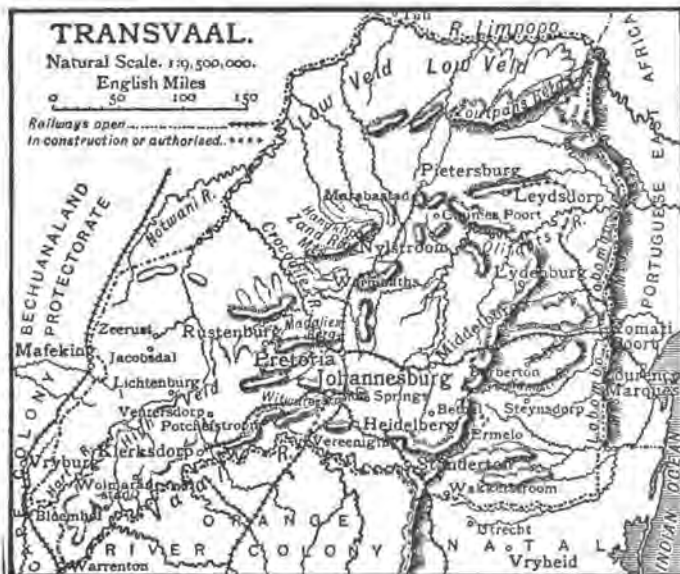
3.—The surface of the Transvaal is distinguished by terraces, so conspicuous a feature in South African scenery, which are known as the **Hooge** or **High Veld**; the **Middle Veld**; and the **Bush Veld**.

(i) The **High Veld** runs across the country from Lydenburg to Middelburg; then along the Witwatersrand (= White Water's Ridge) to Lichtenburg. In some parts it is 6,000 feet above sea level; and is so cold in winter that the farmers remove their stock to the warmer Bush Veld. Scarcely a tree is to be seen, but the pasture is good for sheep. In the Witwatersrand are the gold mines.

(ii) The **Bush Veld** includes all the country north of 25° south latitude. It is covered with small trees, especially the mimosa; the grass is sweet, and all kinds of farm stock thrive on it. The surface is much lower than the High Veld, and slopes down to the River Limpopo. In summer the heat drives

the cattle out to the cooler hills. Even the Natives who live there occasionally suffer from the fever, which cannot find a footing in the cool, dry air of the uplands. The chief towns are Nylstroom and Pietersburg.

(iii) The **Middle Veld** comprises the terrace between the High and Bush Veld. It is intersected with deep kloofs, very picturesque, and generally well wooded and watered. It possesses the advantage of good grazing for both summer and winter, and is called "the Garden of the Transvaal." The principal town is Pretoria.



4.—The principal rivers are the Vaal and the Limpopo. Numerous tributaries of both flow through the country. On the east are the rivers Komati and the Crocodile, which unite to form King George's River, and enter the ocean at Delagoa Bay.

(i) The Limpopo rises in the gold-bearing ridges of the High Veld, and in its course of a thousand miles describes three-quarters of a circle, and at length enters the sea in almost the same latitude as its source. The river is never dry, but during the dry winter shrinks into a number of pools of green slimy water. Crocodiles are abundant. Its chief tributaries are the Olifant's (= Elephant's), the Nylstroom (= Nile stream), and the Marico.

(ii) The principal affluents of the Vaal are the Gans Vlei (= Goose), Krom (= Crooked), Klip (= Stone), Mooi (= Pretty), and Harts Rivers.

5.—There is only one lake in the Transvaal that merits notice :

Lake Chrissie, in New Scotland, near the head waters of the Maputa and the Vaal.

(i) It is 5,700 feet above the sea, and is 36 miles in circumference, with considerable depth in some places.

6.—The **climate**, according to latitude, varies from warm temperate on the High Veld to sub-tropical in the Bush Veld. The summer rains set in about December, and then thunderstorms with destructive lightning frequently occur. There is an average of 250 fine days in a year.

(i) In the northern districts malarial fever prevails in the summer, and they are therefore not suitable for Europeans.

(ii) The average rainfall is from 8 to 20 inches, and decreases in passing from east to west.

Lesson 44.—Transvaal: Inhabitants, etc.

1.—There are 1,354,000 inhabitants in the Transvaal; of whom 300,000 are whites, and 1,030,000 are Natives.

(i) About two-thirds of the whites are English; one-third is Dutch. The Natives consist of the Vaalpens, the Batloko, the Batsoetla, and other races, congregated most thickly in the northern districts.

2.—The Transvaal is admirably suited for **pastoral and agricultural farming**.

In the south, cattle and horses thrive very well, and all kinds of grain can be easily grown. But the farther north, the less adapted is the veld for sheep, and in the summer months horse-sickness prevails. The soil in the valleys is rich, and Transvaal tobacco is deservedly held in repute.

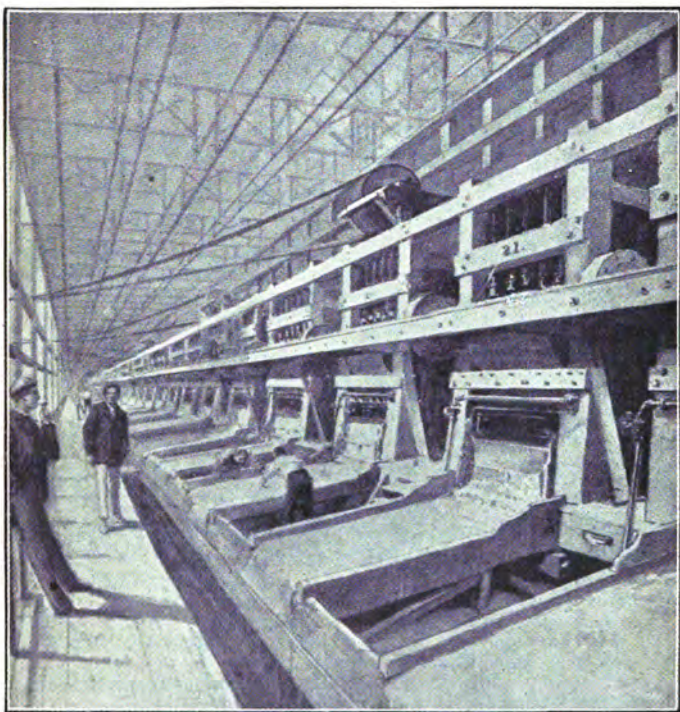


TSETSE FLY (MAGNIFIED).

3.—The Transvaal at one time abounded in game, but for many years they have been shot down, and now few remain. All the larger wild animals, as lions and giraffes, are found only in the north; but jackals, striped hyenas, porcupines, and spring hares abound everywhere, often to the serious annoyance of the farmer. The most injurious insect is the **Tsetse fly**, which infests the northern border and the river valleys near the east coast.

(i) The **Tsetse fly** is a little more than half an inch long, and the body is marked with stripes of yellow and dark chestnut. It does not sting as

a wasp does, but inserts, like a mosquito, its lance-shaped proboscis into the skin to suck the blood, and in the act injects a poison which ultimately kills. To man and wild animals, and even to calves so long as they continue to suck the cow, the bite is harmless. The mule, ass, and goat are not much endangered. But to oxen, horses, and dogs the bite is fatal. After a few days the eyes and nose begin to run, the coat staves, a swelling appears under the jaw; the animal becomes thinner and thinner till it dies. The



A GOLD STAMP BATTERY.

Tsetse fly will probably disappear from South Africa with the destruction of the larger game, especially the buffalo, which it seems to accompany.

4.—The Transvaal possesses vast **mineral wealth**, surpassing in this respect every other South African State. **Gold** is found at Witwatersrand, Barberton, Lydenburg, and Klerksdorp. **Silver, copper, lead, and coal** have been discovered in several places.

(i) The **gold reefs** of Witwatersrand vary in thickness from two inches to fourteen feet, and can be traced for a hundred miles. The gold is found in layers of conglomerate rock called "banket" (the Dutch word for a sweetmeat similar to almond rock), lying between beds of sandstone and tilted into nearly a vertical position. The reef is crushed in a battery of falling stamps, and when it is reduced to a fine powder it is passed with water over mercury plates which retain the gold and allow the sand to be washed away. The gold is afterwards extracted from the mercury. The export of gold amounts annually to about three million ounces, and it is supposed this output can be continued for fifty years.

(ii) At **Barberton** the gold is found in quartz reefs, a few of which have proved to be very rich.

(iii) At **Lydenburg** much of the gold is alluvial; the largest nugget unearthed weighed 215 ounces.

(iv) **Silver** has been found near Pretoria, Middelburg, and Rustenburg.

(v) **Lead** has been discovered principally in Marico, and the ore contains a large amount of silver.

(vi) **Iron** is especially abundant in the Zoutpansberg and Waterberg.

(vii) **Copper** has been discovered in the Rustenburg district, and near Pretoria.

(viii) **Coal** has been found near Johannesburg, Middelburg, Heidelberg, Ermelo, and in the south at Viljoens Drift, where the railway crosses the River Vaal. It is of excellent quality, and little inferior to Welsh coal.

5.—The Transvaal enjoys railway communication with the coast.

(i) **Pretoria** is connected with the Cape Railway system at Vereeniging; with Delagoa Bay by the Central railway; and with the Natal railway system at Charlestown.

Lesson 45.—Transvaal: Divisions and Towns.

1.—The **High Veld** contains the Divisions of Lydenburg, Barberton, Middelburg, Wakkerstroom, Ermelo, Heidelberg, Standerton, Johannesburg, Potchefstroom, and Lichtenburg, with Bloemhof in the south-west corner.

(i) Gold was first successfully worked in the **Lydenburg** (1,523) district.

(ii) **Barberton** (2,379) is the business centre of the De Kaap gold fields. It has excellent stores and houses. It is completely surrounded by hills, and looks as if it had been built in the crater of an extinct volcano. It is now connected with Delagoa Bay by railway.

(iii) **Heidelberg** (3,129) is a small, pretty town amid numerous gold reefs. Here the Boer leaders issued in 1880 their proclamation of independence.

(iv) **Middelburg** (3,682) is in the midst of a rich coal-bearing district.

(v) **Standerton** (3,899), on the Vaal, does a large trade in wool.

(vi) **Johannesburg** (78,000) is the largest town in the Transvaal, and is situated on the Witwatersrand gold fields. In 1886 the site was nothing but a bleak bare plain that could have been bought for a hundred pounds. Then came the discovery of gold reefs, east and west, for sixty miles; and stores, public buildings, and churches sprang up with marvellous rapidity. It has already four suburbs—Doornfontein, Jeppe's Town, Braamfontein, and Fordsburg—connected with Johannesburg by tramways. The market square is the largest in South Africa. The streets are lit by electricity. There are

many stately piles of buildings on which large sums of money have been expended.

(vii) **Krugersdorp** (4,622) is a mining centre, and possesses a monument erected to the memory of those who have died in the service of their country. It was near to Krugersdorp that Dr. Jameson and his men surrendered in 1896.

(viii) **Potchefstroom** (9,233), on the Mooi River, is the oldest town in the Transvaal. The houses are dotted at intervals among cypress, blue gum, and willow trees, and the town has the appearance of a large garden. The name is a combination of *Pot*, the first syllable of the name of the Trek-leader, Potgieter; *chef*, denoting his position as their chief; *stroom*, a stream, referring to the Mooi-River. It has been the scene of conflicts, between the



ELOFF STREET, JOHANNESBURG.

Boer factions under Kruger and Schoeman in 1862, and between the Dutch and the English in 1881.

(ix) North of Potchefstroom are the marvellous limestone caves of **Wonderfontein**. The entrance is through a hole barely large enough to admit a man; but within are extensive halls majestically adorned with glittering stalactites, white as driven snow. Some are not unlike the pipes of an organ; others extend from the roof nearly to the ground in circular pillars, suggesting the nave of a cathedral.

(x) **Klerksdorp** (4,235) stands on the main line from Griqualand West to Johannesburg. Extensive gold reefs have been found in the neighbourhood, but they are of low grade. Diamonds of a green colour have also been found, and coal in large quantities.

(xi) **Christiana** (1,833) is a town largely dependent on the diamond deposits in the vicinity.

2.—The Middle Veld contains the divisions of **Pretoria**, **Rustenburg**, and **Marico**.

(i) **Pretoria** (36,700), the capital, is named after Pretorius, the first President of the Transvaal. The town lies on the slope of a valley formed by the Aapies River, a tributary of the Crocodile River, and is well sheltered from cold winds; but during the summer rains the ground becomes swampy, and fever prevails. The streets are broad, well laid out, and in the centre of the town is a fine square, around which are grouped the public offices, banks, and chief stores. The result of the sudden inrush of wealth caused by the gold discoveries is seen in the Government buildings, perhaps the handsomest



GOVERNMENT BUILDINGS, PRETORIA.

pile in South Africa. One peculiar feature of the place is the rose hedges—not wild roses, but roses of the garden. The streets are lined with magnificent willows.

(ii) **Marico** is rich in gold, lead, and silver. **Zeerust** (1,942) is the chief village, and near to the Malmani gold fields. It stands in a most fertile valley, and the country round is rich in minerals.

(iii) **Rustenburg** (1,815) has a hot climate, and is famous for its tobacco.

3.—The Bush Veld contains the divisions of **Waterberg** and **Zoutpansberg**.

(i) Gold reefs have been discovered in the Waterberg. The gold is found in fissure veins, and not in conglomerate as at the Witwatersrand.

(ii) **Nylstroom** (599) is on a tributary of the Limpopo of the same name. When first seen by the emigrant Dutch farmers, they supposed they had reached the head waters of the Nile, and accordingly gave it the name it now bears.

(iii) **Pietersberg** (3,277) is the chief town of the Zoutpansberg, and is very unhealthy during the rainy season in summer.

4.—**Swaziland** is a small Native State situated in the south-east corner of the Transvaal. It was added to the Transvaal in 1895.

(i) The country combines hills and valleys, varied with choice arable land and wooded plains, a South African Tyrol. It is rich in minerals, especially in gold and coal. The most famous reef is Pigg's Peak in the north-west.

(ii) The **Swaxis** number about 60,000. They are warlike, and assisted the English forces in 1880 in subduing Sekukuni, a chief who had long been troublesome. They are heathens; and witchcraft, "smelling-out," and the veneration of snakes still prevail amongst them.

Lesson 46.—British Bechuanaland Protectorate.

1.—The Protectorate is a large territory, extending from the River Molopo northward towards Lake N'gami, and includes Khama's country.

(i) The area is about 380,000 square miles, and is three times as large as that of the Transvaal.

2.—The Protectorate is an elevated plateau, 5,000 feet above the sea. Very few mountains are seen. For miles and miles stretch grassy plains, more level even than those of the Orange River Colony. Here and there are patches of English park scenery: *mimosas* and camel-thorns beautifully dotting the landscape.

(i) It is an excellent country for **cattle rearing**. There are extensive tracts available for corn lands.

(ii) The **railway** extends from Kimberley to Mafeking, which is now a large centre of trade.

3.—The **climate** is continental. The days are hot, the nights are cool. The winters are cold, and ice quickly forms on the pools, and as quickly melts when the sun rises. The country is very healthy for Europeans.

4.—The **animal and plant life** of the Protectorate resembles that of Cape Colony.

(i) In the camel-thorn trees may be seen the marvellous nests of the sociable weaver birds. They construct a large umbrella-like roof, and under it a hundred birds will build their nests, making them of blades of grass cunningly woven together. Sometimes the weight of the nests kills the tree.

5.—Bechuanaland has numerous vleis and lakes, the largest of which is N'Gami.

(i) **Lake N'Gami** (= Giraffe Lake) is about 50 miles long and 10 miles broad, but its size varies according to the rainfall. The rivers **Botletle** and **Kobango** flow into it, and when the lake is full the water is fresh; but when it is low the water is brackish. The lake was discovered in 1849 by Dr. Livingstone and Mr. Oswell, and corresponds in the south to Lake Tshad in the north, just as the Kalahari corresponds to the Sahara.



PALAPYÈ.

6.—The **Inhabitants** of the Protectorate consist of various tribes of **Bechuanas**.

(i) The **Bechuanas** include the **Barolong**, the **Bangwaketsi**, the **Bakwena**, and the **Bamangwato**. In some respects they are more civilized than are the other native races of South Africa. Their houses are of better construction; they work in iron and copper; and make neat skin karosses. Their food is chiefly maize and milk. Their weapons consist of guns, assagais, and a small battle-axe similar to that used by the Basutos.

7.—The Protectorate is under the limited rule of the various Native chiefs, subject to the control of the British Government. The sale of intoxicating liquors to the Natives is prohibited.

(i) **Kanyè** is the chief settlement of the Bangwaketsi. The town is situated on the summit of a table-topped hill, the ascent for vehicles being by a long, circuitous road. The country around affords excellent pasturage for cattle. There are three native churches, and several stores equipped for the native trade.

(ii) **Peelans**, twelve miles north of Kanyè, is built close under a mountain.

The water supply is deficient, and the cattle are kept at various posts away from the town, and the milk is brought in skins on pack oxen.

(iii) **Molep-lole**, like Kanyè, is built on a table mountain. Water has to be fetched from the valley below. No doubt frequent wars suggested the erection of towns on the tops of mountains as an aid to defence. This is the home of the Bakwena.

(iv) **Palapyè** is the new town of Khama, the noted chief of the Bamangwato, and stands on a terrace a hundred feet above the Lotsane River. The neat red clay and thatched huts cover twenty square miles, and are built amongst groves of camel-thorns and wild orange-trees. The population is about 20,000. The Bamangwato are a peaceful people, living by agriculture and hunting. Khama is an enlightened and sagacious chief, and rules more by kindness than severity.

(v) Travellers from Mafeking to Palapyè have to depend mainly upon pits for a very poor supply of water. The district is known as "Thirst-Land."

Lesson 47.—Kalahari Desert.

1.—The **Kalahari Desert** might be supposed from its name to be a barren, rainless region; but it is not entirely such. It is a vast tract of country, about the size of France, bordered in most parts by a sandy, waterless belt, but having sufficient rain in the interior to nourish a fair amount of vegetation.

(i) The **surface** is sandy, and the rain, which is derived from summer thunderstorms, sinks readily into the porous soil, and goes to increase the underground stores of water, of which there is reason to believe there are immense quantities. There is an absence of surface water, hence the application of the name "desert"; but the few springs that exist are sometimes strong and copious, and imply large underground supplies. The existence of the Kalahari is due to the rain-bearing winds—here the south-east trades—being drained of their moisture by intervening mountains, soon after leaving the sea.

(ii) The Kalahari desert is the western portion of the British Bechuanaland Protectorate.

2.—**Granite Mountains** cross the Kalahari in every direction.

(i) Many of them contain copper, lead, silver, and gold.

3.—The principal water-courses are the **Molopo, Oop, Nosop, and Back**, all tributaries of the **Hygap**, which is in itself an affluent of the Orange River; but they run only after thunderstorms, and become smaller the farther they go, often sinking at last into the earth, from which the water can generally be recovered by digging in the river beds.

(i) The **Oop** and **Nosop** rise in Ovampoland and Damaraland. The **Back** rises in the Brinrus range to the south.

4.—The Kalahari is essentially a **grass country**, but the grasses do not grow thickly clustered together as in English turf, but in tufts "like stooling wheat," and occasionally attain the height of four and five feet.

(i) In the north, trees such as the camel-thorn, baobab, and palm abound, and are sometimes grouped in dense forests.

(ii) There is a small melon called the "shama" that is plentiful for several months of the year, and it contains so much liquid that cattle and game do not require water when it is in season. Even lions and jackals will eat it.

5.—The principal inhabitants are the **Bakalahari** and **Bushmen**, who lead a wandering life with a very precarious existence.

(i) The **Bakalahari** grow melons and maize where they can, rear small herds of goats, and live on these and the spoils of the chase.

(ii) The **Bushmen** never cultivate the soil, and never rear any animals except some miserable dogs. They capture game by pitfalls, poisoned water, and other stratagems. They live in holes and caves. They have "no religion, no laws, no government," and are rapidly becoming extinct.



6.—The Fauna of the Kalahari include most of the larger game. The lion, the rhinoceros, the giraffe, the gemsbok, the springbok, and the ostrich furnish ample sport to the hunter.

(i) The African Lion surpasses in size and strength all the Asiatic lions. He is nocturnal in his habits—dark and stormy nights being those on which he is most active. He generally tries to intimidate before he attacks, and approaches with a tremendous roar, head erect, and gnashing his teeth. It is almost impossible to exaggerate his power when aroused. All muscle, he rushes on his prey with a tremendous bound. He has been known to leap a bush-fence with a young ox in his teeth, and to carry it for nearly half a mile without permitting it to touch the ground.

(ii) There are two varieties of **Rhinoceros** known. The "Rhinoceros Simus," the so-called White Rhinoceros, which is now practically extinct. The last of this species was shot in 1892 in Mashonaland. The Rhinoceros bicornis or boreli is a smaller animal and is more fierce. It possesses two horns of unequal length, and its skin, which is thick and hard, is largely made into whips. It browses on the young shoots of the acacia and other trees.



RHINOCEROS.



GIRAFFE.

(iii) The **Giraffe**, when full grown, stands 18 feet high. It is unfitted for grazing upon level ground; but can with perfect ease reach the tops of lofty trees, on the leaves and twigs of which it feeds. It is assisted by a marvellous whip-like tongue, with which it grasps the young branches, and draws them within reach of its teeth. The thick strong hide is used by the Natives in the manufacture of shields.

young branches, and draws them within reach of its teeth. The thick strong hide is used by the Natives in the manufacture of shields.

(iv) The **Gemsbok** is a large antelope, equalling the domestic ass in size, with long, straight, and sharply-pointed horns, which it can wield with marvellous skill. It has been known to receive the lordly lion on its bayonet-like horns, driving them right through its antagonist's body, and hunter and hunted have been found dead side by side on the plain. It lives in dry places, and, says Mr. Selous, is independent of water, which it never tastes.

Lesson 48.—Gazaland.

1.—**Gazaland** has for its southern boundary **Tongaland**; its western, the **Lobombo Mountains** and similar ranges that run parallel to the coast, about 33° East Longitude; and the **River Zambesi** forms its northern limit.

2.—The coast-line is 700 miles in length, and contains **Delagoa Bay**, **Inhambane Bay**, **Sofala Bay**, and **Pungwe Bay**.

(i) **Delagoa Bay** is the finest natural harbour in South Africa. The anchorage is deep and well protected from winds. Off the entrance to the bay is **Inyack Island**, on which stands a lighthouse. But the Bay is surrounded by a huge swamp, and the neighbourhood is subject to malarial fever.

(ii) **Inhambane Bay** and **Sofala Bay** are equally unhealthy. The coast, throughout its entire length, is low, marshy, and in the summer is infested with pestiferous vapours.

(iii) At the islands of **Bengura** and **Bazaruta** pearl fisheries are carried on.

3.—The principal rivers that flow through **Gazaland** are the **Komati**, the **Limpopo**, the **Sabi**, the **Busi**, and the **Pungwe**.

(i) The **Komati** runs through a rich gold-bearing district.

(ii) The **Limpopo**, an immense river, rises in the High Veld in the **Transvaal**, and in its course of a thousand miles receives a hundred streams, but very little is known of its lower course. The all-prevalent fever retards exploration.

(iii) Both the **Sabi** and the **Pungwe** are said to be navigable for small vessels for 50 miles from the coast, and are expected to furnish valuable water-ways, affording access to the new British settlements in **Rhodesia**.

4.—**Gazaland** is a beautiful fertile country, with grass-clad hills; it is abundantly watered, and streams are met with every few miles. Here and there are magnificent forests of timber. The western uplands are healthy, and adapted to carry a large European population.

(i) Cotton, sugar, coffee, tobacco, and sago grow luxuriantly, and tropical trees, as the guava, palm, and mango, flourish.

5.—The inhabitants of **Gazaland** are various tribes of **Zulus**. The **Portuguese** claim authority over the whole country, but outside the coast towns their authority is of the most nominal kind.

(i) **Lourenço Marques** (4,000), on **Delagoa Bay**, consists of a collection of red-tiled houses, almost level with the beach, and gay with white and blue paint,

with here and there a cluster of cocoa-nut trees rising from their midst. But the few Portuguese and other European residents suffer severely from fever. The town is of importance as the terminus of a Railway to the Lobombo Mountains, and which extends to Pretoria. The Bay is the finest harbour in South Africa, vessels being able at low water to anchor close to the shore.

(ii) **Sofala** is the oldest Portuguese town on the coast.

(iii) **Inhambane** is a town prettily situated on a bay of the same name. Out of a population of 7,000, only 70 are Europeans.

(iv) **Sana, Shemba, and Tete** are Portuguese stations on the Zambesi, at which, in former times, the slave trade was actively carried on. Now a trade in gold and ivory is carried on.

Lesson 49.—Rhodesia.

1.—**Rhodesia** extends from the northern border of the Transvaal to the River Zambesi, and from Gazaland to the Bechuanaland Protectorate. The Western part is Matabeleland, and the eastern is Mashonaland.

(i) The area has not been accurately ascertained, but it is probably as large as France and Italy united.

2.—The principal mountains are the **Matoppo** and the **Umvokwi**, that run in almost a continuous chain in a north-easterly direction through the country; and the **Lubolo Mountains** on the right bank of the Zambesi.

(i) The **Matoppo Mountains** form the great watershed of the country. On the north slope the streams run to the Zambesi; on the south to the Limpopo; and on the east to the Indian Ocean. This range is from 4,000 to 5,000 feet above sea level; and from it branch off numerous spurs forming rich well-watered valleys.

3.—The principal rivers are the **Zambesi**; the **Limpopo**, with its affluents the **Macloutsie** and **Bubye**. On the east are the head-quarters of the **Sabi**.

(i) The **Zambesi** rises in Katanga, close to some of the head-waters of the Congo, flows west, then abruptly turns southward, and passes through the fertile Barotse valley. After being joined by the Tshobe, it flows eastward for 200 miles, and, almost exactly in the centre of the Continent, plunges over the magnificent "Victoria Falls," which are formed by a gigantic V-shaped crack in the hard basaltic rock right across the river bed, which is here 1,000 yards wide. The Falls are 350 feet in depth, and the vapour rises like steam to the height of a thousand feet above the Falls, spanned by very fine rainbows, making a scene full of grandeur and sublimity. The river flows into the Indian Ocean through an immense delta, the outmost mouths of which are sixty miles apart. Vessels can ascend the Zambesi for many miles, but navigation is made difficult by the frequent shifting of the mud banks in the river.

4.—The climate is not so dry as that of the Orange River Colony. The east winds bring frequent rains, and when they are not blowing the air is warm, and in low situations and near rivers fever is common.

(i) The healthiest district for Europeans is the open plateau extending from Fort Salisbury to Bulawayo. Here is a rolling plain 5,000 feet above the level of the sea, watered by numerous streams, covered with a rich soil, and well suited for agriculture and stock-farming. It is gradually being occupied by European farmers. In the lower districts the country is well wooded. Ebony and mahogany are found. Cotton and rice grow wild.



5.—The Native Inhabitants belong to the Bantu family; the chief tribes are the **Matabele** and the **Mashona**.

(i) The **Matabele** are a wild race, made into a nation by Moselekatse, the great Zulu chief who fled from Tshaka into this country. They live in small villages enclosed by a strong fence, along the inside of which are packed mean-looking huts and cattle kraals. Their capital was **Bulawayo** (=Place of killing), which stood upon a bleak ridge, a spur of the Matoppo Mountains, and overlooked the surrounding country. Here resided Lobengula, the chief, a son of Moselekatse, and for many years he and his warriors made destructive raids on the neighbouring tribes, keeping them in constant terror. In 1893, as the Matabele persisted in their destructive attacks on the Mashona, a well-equipped force under the command of the officers of the British South Africa Company entered Matabele territory, defeated the Matabele army at Shangani

river, and occupied Bulawayo. Lobengula fled towards the Zambesi, and on the way died from fever.

(ii) The **Mashona** or **Makalaka** include a number of clans, each of which has its own tribal name. They are unwarlike, docile, and industrious, and build their huts on the tops of rocks, to escape the attacks of the Matabele. They are skilful in smelting and manufacturing gold and iron into articles of



VICTORIA FALLS, WITH RAILWAY BRIDGE ACROSS THE RIVER ZAMBESI.

use and ornament. They make their own assagais and battle-axes. Their carved wooden spoons are similar to those of the ancient Egyptians. They manufacture excellent earthen pots for cooking food. With an instrument called a "calabash-piano" they make a rude kind of music. They grow rice, beans, and sweet potatoes in large quantities; they also grow cotton and weave it into cloth.

6.—Rhodesia has been proclaimed **British Territory**, and the development of its resources has been entrusted to the "**British South Africa Company.**"

(i) Lobengula, the chief of the Matabele, granted concessions to work minerals in Mashonaland. In 1889 the British South Africa Company was formed to work these concessions and develop the country. A strong pioneer force, guided by Mr. Selous, the famous hunter, entered Mashonaland and established townships at **Salisbury** (1,726) and **Victoria** (167). Since the defeat and death of Lobengula, **Bulawayo** (3,840) has become the headquarters of the Company, and already a town has been laid out. Churches, hotels, newspapers, have sprung into existence. Telegraphic communication has been established, and a message can pass from Bulawayo to London in five hours. A railway has been made from Port Beira on the east coast to Salisbury, so as to dispense with oxen in crossing the "tsetse" belt. A railway connects Salisbury with Bulawayo and Mafeking, where it joins the Cape railway system. A line has also been made from Bulawayo to West Nicholson to open up the gold and coal fields; and also from Bulawayo to the Victoria Falls as part of the proposed Cape to Cairo railway. The Zambesi is crossed by a very fine bridge just below the Falls.

7.—Rhodesia is rich in **minerals**, especially in **gold**. Ironstone is abundant; some of the ore is so rich that it requires very little smelting. There are also large coal areas.

(i) Both reef and alluvial gold have been discovered. The hills are crossed by numerous veins of quartz, most of which are gold-bearing. The Mashona women wash the sand of the river beds and obtain fine gold, which they store in quills and sell to traders for beads and other articles.

(ii) Old gold workings and ruins are found scattered over the country. The most extensive are those of Great Zimbabwe (=Royal residence), near Victoria. The ruins cover a large area, and on an eminence are the remains of a fortress, the walls of which are thirty feet high and ten feet thick, and built of cut stones put together without mortar, so close-fitting that a knife can hardly be inserted between them. Smelting crucibles with gold in them, ingot moulds, and spears have been found. Mr. Bent supposes they are the work of Sabeans, who came from the Arabian Peninsula about 3,000 years ago, and carried on gold-mining in this district on a large scale.

8.—The **Animal Life** of Rhodesia is rich and varied. All the large game—the elephant, the lion, the rhinoceros, the giraffe, the ostrich—are represented. The ungainly hippopotamus frequents the Zambesi and its affluents. On the plains roam the gnu (wildebeest), the lordly eland, and the beautiful sable antelope, whilst the zebra frequents the mountains, and the magnificent koodoo the wooded kloofs.

(i) The **Gnu** (Dutch, wildebeest) has the head and curved horns of a buffalo, the body, mane, and tail of a horse, and the legs and hoofs of an antelope. Its size is that of a large ass. When alarmed it throws up its heels like a horse, and then gallops off with great speed. By the Dutch it is called "wildebeest."

(ii) The **Eland** is the Prince of Antelopes. Its greyish fawn colour, its deep dew-lap, its great square quarters, its straight back, its delicately-shaped head, show it to be one of the finest animals in the world. It is as heavy

as a prize ox, but carries itself with consummate grace. Both sexes have horns.



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ELAND.

(iii) The **Sable** or **Black Antelope** is becoming rare, and unfortunately its rarity makes it keenly sought by the sportsman. Its black horns sweep round in a graceful curve until the points nearly touch the back, and are ringed to within six inches of the points. When wounded it is very savage.

(iv) The **Waterbuck** frequents the marshy country about Lake N'Gami. Its hoofs are deeply cleft, and in walking they spread out and prevent the feet from sinking in the mire.

Lesson 50.—Great Namaqualand, Damaraland, and Ovampoland.

1.—**Great Namaqualand, Damaraland, and Ovampoland** extend from the Orange River to the Cunene River, and from the Coast to the 20th meridian of East Longitude. This country was taken under German protection in 1884, with all the coast-line except **Walfish Bay**, which, with 40 miles north and south, and 20 miles inland, belongs to Cape Colony. Along the coast are small rocky islands frequented by penguins and other sea-birds, and having deposits of guano.

(i) **Penguin Island, Shark Island, Ichaboe Island, and Mercury Island** belong to Cape Colony.

(ii) **Walfish Bay** (65) possesses a few stores and a Rhenish Mission Station. Fresh water has to be taken from Cape Town for the people there. In former times the harbour was the resort for whalers from the north on their way to their profitable operations in the South Polar seas.

(iii) **Angra Pequena** (= Little Bay) is on the Coast of Great Namaqualand, and in 1883 was ceded by the Namaquas to Lüderitz, a German merchant. A German protectorate followed the year after.

2.—From the Orange River to the Kunene, and for ninety miles inland, the country is sandy and waterless—"a howling wilderness of rugged mountain and heavy sand, where no blade of grass or drop of water can be seen." The upland afford very fair pasturage.

(i) **Damaraland**, in the interior, is clothed with forest trees and bush and herbage, and the rivers flow about twice in a year. Even when not running, water can generally be found just below the surface by digging in the dry river beds.

(ii) On the borders of Damaraland and Ovampoland is a belt of country covered with dense thickets of acacia and camel-thorn.

3.—The mountains are rich in **copper** and **gold**, and the principal productions of the country are **ivory**, **ostrich feathers**, and **cattle**.

(i) The difficulty of access from the coast—miles of difficult sand intervening—has hitherto prevented the minerals of the interior being worked. Dromedaries are being used for transport and have proved very serviceable. On the borders of the **Kalahari**, both the elephant and the ostrich are found and are hunted by the Natives, the one for its tusks, the other for its wing-plumes.

4.—**Namaqualand** is inhabited by a pure Hottentot race called **Namaquas**.

(i) The **Namaquas** have found the dry wastes of the desert their best defence against attack. Their language sounds uncouth from the number of clicks in it. They number about 30,000, and are divided into tribes, the most important of which are the **Afrikaners**, the **Veldschoendragers**, or "field shoe wearers." They are a pastoral people, and wander with their herds from place to place as pasture or water can be found.

5.—**Damaraland** is occupied by the **Damaras**, or **Hereros**, a branch of the **Bantu** family, and a purely pastoral people.

(i) The **Cattle Damaras** number about 55,000, and live on the high interior table-lands, rearing large herds of cattle. It is not unusual for a chief to have a ranch with 10,000 head. The **Berg** or **Hill Damaras** approach more closely in racial characteristics to the negroes, and having at one time been enslaved by the **Namaquas**, speak their language. They are a restless people, and are often at war with the **Namaquas** and **Cattle Damaras**. Their chief ambition is to gain possession of guns and ammunition.

6.—**Ovampoland** is tenanted by the **Ovampos**, another tribe of the **Bantu** family, but devoted to agriculture.

(i) The **Ovampos** are tall and robust, as **Kafirs** usually are, but are said to be ugly. They are honest, industrious, and hospitable. They grow wheat as well as rear cattle, and store their grain, not in pits, but in huge jars. They make wells, 90 or 100 feet in depth, with a spiral path in the side to enable people to descend to the water. Afraid of the attacks of the **Damaras**, they live in huts surrounded by a stout palisade, and thus convert their dwellings into miniature fortresses.

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