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Geography of the
Madras Presidency

WITH INTRODUCTORY SUBJECTS

FOR STANDARD V

REVISED EDITION

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FOR INDIA

MADRAS ALLAHABAD CALCUTTA RANGOON COLOMBO

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PREFACE

THIS little book is especially designed to meet the requirements of Standard V. These are:—

- (a) Shape, size, and relief of the earth ; simple notions regarding the relations of sun, moon and earth.
- (b) The Oceans and Continents of the World.
- (c) The Physical features of the Indian Empire.
- (d) The Geography of the Madras Presidency, Travancore Cochin, Mysore and Coorg.

In another form the book has already been widely used, but for the present edition it has been thoroughly revised and brought up to date in all particulars, and illustrated throughout with specially-drawn maps. Though concise and simple, as befits a school-book for use in junior classes, the book will be found fairly complete, and it is hoped that it will be useful and interesting beyond the limits of the schoolroom.

MADRAS }
1921 }

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INTRODUCTION

THE EARTH, THE SUN AND THE MOON

THE Earth upon which we live is not flat as it appears, and as men for many ages thought it was, but is a great round ball.

We know that this is so because it is possible to travel right round it. (If you were to start in any direction and go on and on, over land and sea, you would come in time to the point from which you started.) Many have thus journeyed 'round the world,' and with the aid of railways and steamers it can be done now in two or three months. (Now if the Earth were flat, to travel on in the same direction could never bring you back to your starting-point, but would take you further and further away from it.)

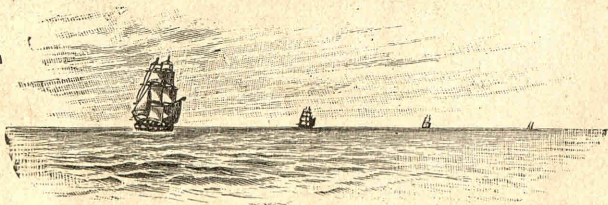


Fig 1

We also conclude that the Earth is round from the way ships disappear when they sail away to sea.

The first thing that we lose sight of is the hull of the ship, and the last is the top of the masts. When they are sailing towards us the first thing that we see is the top of the masts and the last is the hull. This is because the rounded surface of the ocean hides the lower parts from our view.



Fig 2.

There is another way in which we can actually see that the Earth is round. (An Eclipse of the Moon is caused by the shadow of the Earth falling upon the Moon, and whenever such an Eclipse occurs the shadow of the Earth is *round*. Now only a round ball can *always* cast a round shadow, and therefore as the shadow of the Earth is always round, the Earth must be round too.

But the Earth is very large, and that is the reason why the small part of it that we can see seems to us to be flat. (The greatest distance right round the Earth is about 25,000 miles. This is called its **circumference**.) The greatest **diameter**, or the distance from side to side, through the centre, is almost 8,000 miles.

The Earth is not, however, *quite* round. It is often likened to an orange, because it is a little flattened at two sides. The diameter of the Earth between these two flattened sides is its **shortest diameter**. One end of the shortest diameter is the **North Pole** and the other end is the **South Pole**. Half-way between the Poles a great circle called the **Equator** runs right round the Earth dividing it into two equal half-globes or *Hemispheres*, called the **Northern** and **Southern Hemispheres** respectively. The Equator runs from

East to West. If you stand facing the North the East is on your right hand and the West is on your left. These four, **North, South, East and West**, are called the **Points of the Compass**, or the **Cardinal Points**.

Now, although the Earth seems to us to be so still it is really always moving. It has two quite different movements, both of which are of the greatest importance to all who live upon it. Let us try to understand them.

1. If you take an orange and stick a long needle right through it from one of its slightly flattened sides to the other, and then, while holding the needle quite still, make the orange spin round and round upon it, that will represent the first movement of the Earth. The Earth is continually turning in this way, **spinning upon its shortest diameter**, which is therefore called its **axis**—just as we speak of the *axle* upon which a wheel turns. One end of the Earth's axis is called the **North Pole** and the other the **South Pole**. The Earth turns completely round on its axis once in twenty-four hours, and this gives us **day** and **night**. When the side

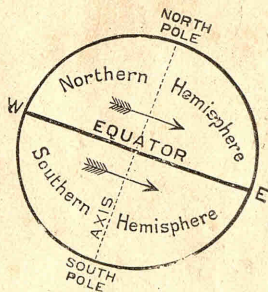


Fig. 3. The Arrows show the direction of the Earth's Rotation

of the Earth on which we live is turned towards the Sun, then it is day to us, and when the Earth has turned so far round that the Sun no longer shines on our part of it but on the opposite side, then it is night to us.

All the stars and heavenly bodies seem to us to move. They rise in the east and set in the west. But it is really the Earth that moves and not they

Through the spinning of the Earth, or its **rotation** as it is called—we are continually changing our position with regard to the heavens, and since the Earth rotates from west to east, the Sun, Moon and Stars seem to move from east to west—to rise in the east, pass over our head and disappear in the west. If you bring your orange on its needle into the light of a lamp and slowly turn it round you will easily understand this.

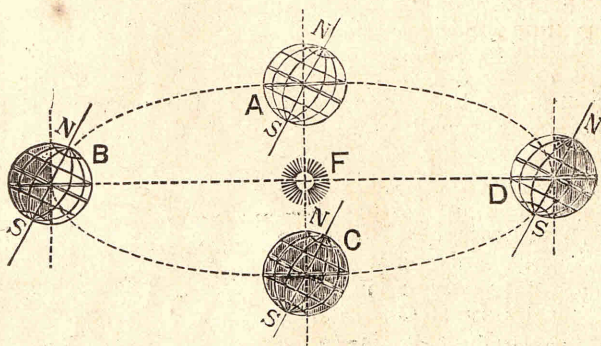


Fig. 4.

2. But the Earth not only turns round on its axis but also **revolves** round the Sun, going once round it in $365\frac{1}{4}$ days. This gives us our **year**. The path which the Earth takes in its journey round the Sun is called its **Orbit**. It is not quite a circle, the Earth being a little nearer the Sun at one point of the year than at another. As the average distance of the Earth from the sun is about 93,000,000 miles, and as the Earth completes a **revolution** in a year, it travels at an enormous speed, rushing along at an average rate of over 1,000 miles a minute.

The Earth's revolution round the Sun gives us our seasons—**Spring, Summer, Autumn and Winter**. The figure on page 4 shows the Earth in four different positions in the course of its journey. You will notice that the *axis* of the Earth, or the diameter from north to south **always points in the same direction**. At one time the South Pole is turned a little towards the Sun, and then it is Summer in the southern hemisphere and Winter in the northern, for the southern hemisphere then gets more of the light and heat of the Sun than at any other time and the northern hemisphere gets less. When, six months later, the Earth is on the other side of the Sun, the northern hemisphere gets most light and heat and the southern hemisphere least, and it is then Summer in the northern hemisphere and Winter in the southern. Midway between these two periods neither the north nor the south pole is turned towards the Sun. The Sun is right overhead at the equator and the two hemispheres get an equal amount of sunshine. It is then Autumn in the hemisphere that is passing from Summer to Winter, and Spring in the other which is passing from Winter to Summer.

The Sun is the great source of light and heat. But for it the Earth would be a dark and frozen mass, and no living thing could exist upon it. The Sun is a vast ball more than a million times as large as the Earth. It is inconceivably hot, hotter than the hottest fire we know, and is surrounded by burning gases thousands of miles deep. The Sun is continually throwing off vast quantities of heat, and though we are so many millions of miles away from it, its rays are so hot that often in Summer we can hardly endure them. In shape the Sun is like the Earth, a round ball slightly flattened on two sides; and, like the Earth again, it rotates on its shortest diameter, going round once in about twenty-five days.

The Earth is one of the larger **Planets**, of which there are eight, viz. **Mercury, Venus, the Earth, Mars,**

Jupiter, Saturn, Uranus, and Neptune. Each of these is, like the Earth, a slightly flattened sphere, and, like the Earth, rotates on its shortest diameter, and travels round the Sun. The Planets vary greatly in size and in distance from the Sun, as well as in the time which each requires for one complete revolution. Two

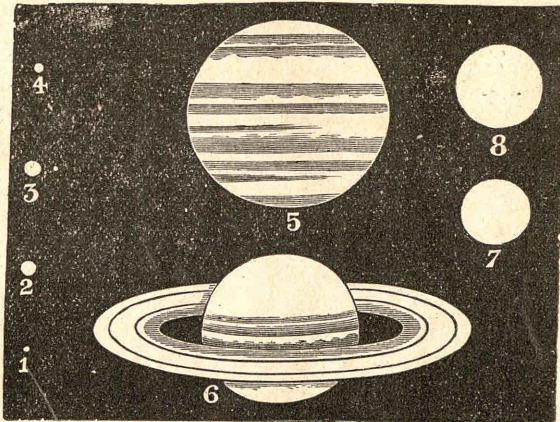


Fig. 5. Comparative Sizes of the Planets.

1. Mercury. 2. Venus. 3. The Earth. 4. Mars. 5. Jupiter. 6. Saturn.
7. Uranus. 8. Neptune.

of them, Mercury and Venus, are nearer the Sun than the Earth is, and five are further away. The furthest is Neptune, which is about thirty times as far from the Sun as the Earth is, and takes almost 165 of our years to complete one revolution. The largest of the planets is Jupiter, which is about 1,300 times as large as the Earth. Further from the Sun than the Earth, but not so far as Jupiter, there are many smaller bodies known as the **Asteroids** or **Minor Planets**. These also revolve round the Sun.

All these bodies taken together form what is called the **Solar System** (Latin, *sol*, the Sun). The Sun, a thousand times larger than Jupiter, is the centre of the system, and carries all the rest with it in its motion through illimitable space. Enormous as is the circle described by Neptune in its journey round the Sun—over 5,500 million miles in diameter—such a circle is small when compared with the vast expanse of the heavens. The twinkling stars which we see on a clear

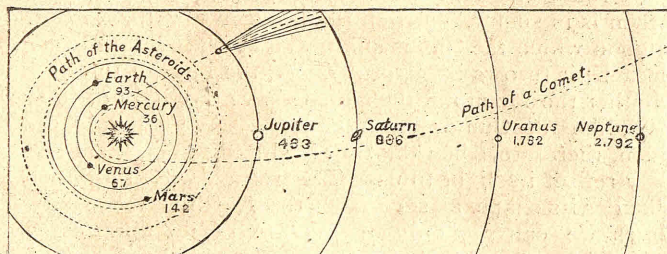


Fig. 6. Orbits of the Planets, and their distances from the Sun in millions of miles.

night, and which are probably suns like ours, are all of them many thousands of times further away from us than even Neptune; so that in spite of the fact that the number of stars is so great, our Sun with its attendant planets 'pursues a solitary way.'

The following illustration was used by Sir John Herschell, a famous astronomer, to give some idea of the relative sizes of the planets and their orbits—

Choose any well-levelled field. On it place a globe two feet in diameter; this will represent the Sun. Mercury will be represented by a grain of mustard seed on the circumference of a circle 164 feet in diameter for its orbit; Venus, a pea on a circle of 284 feet in diameter; the Earth, also a pea on a circle of 430 feet; Mars, rather a large pin's-head on a circle of 654 feet; Jupiter, a moderate-sized orange on a circle of nearly half a mile

across; Saturn, a small orange on a circle of four-fifths of a mile; Uranus, a small plum on a circle of more than a mile and a half; and finally, Neptune, a good-sized plum on a circle two miles and a half in diameter.

On the same scale the nearest star would be more than 8,000 miles away!

Just as the Earth goes round the Sun so the Moon goes round the Earth, and the Earth carries the Moon along with it in its journey round the Sun. The Moon goes round the Earth once in $27\frac{1}{4}$ days. When the Moon is in such a position that we can see that side of it upon which the Sun is shining, it appears bright to us, because it throws back, or *reflects*, the light of the Sun. Neither the Moon nor the planets have any light of their own, like the Sun or the fixed stars. We can only see them, therefore, when the Sun is shining upon them and they reflect its light to us. The reason why the Moon changes its shape as seen from the Earth is that sometimes we can see only *a portion* of its illuminated surface, and at other times *the whole*. You will understand this if you take an orange in your hand and stand at some little distance from a bright lamp. First, hold the orange at arm's length between you and the light. You will then see no part of the illuminated surface. Then slowly turn round, still holding the orange at arm's length. When you have turned half round so that the orange and you are about equally distant from the lamp, you will see about half the orange lit up by the light, and the rest will still be dark. When you have turned completely round, so that you are between the orange and the light (but so that your shadow does not fall upon the orange) you will see that the whole of the side of the orange facing you is lit up. Exactly so is it with the Moon. When it is on the same side of the Earth as the Sun, its illuminated surface is turned *away from us* and we do not see it at all. When it is on the opposite side of us from

the Sun, but not in the shadow cast by the Earth, then we see the whole of the illuminated surface, and we say it is **Full Moon**. Thus as the Moon goes round and round the Earth we see at **New Moon** only a thin crescent of light which gradually broadens out to full moon, and then slowly diminishes till it disappears altogether.

But what if the Moon gets into the Earth's shadow, as it does at stated intervals? There is then an **Eclipse of the Moon**, the Moon, or part of it, becoming invisible

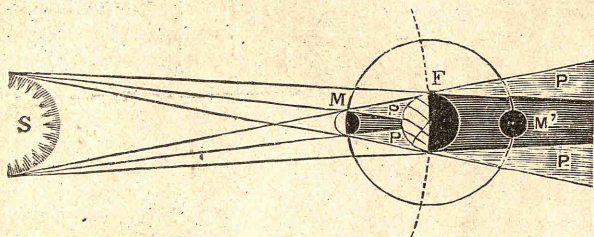


Fig. 7. Illustrating Eclipses of the Sun and Moon.

S represents the Sun, E the Earth, M the Moon during an Eclipse of the Sun, and M' the Moon eclipsed.

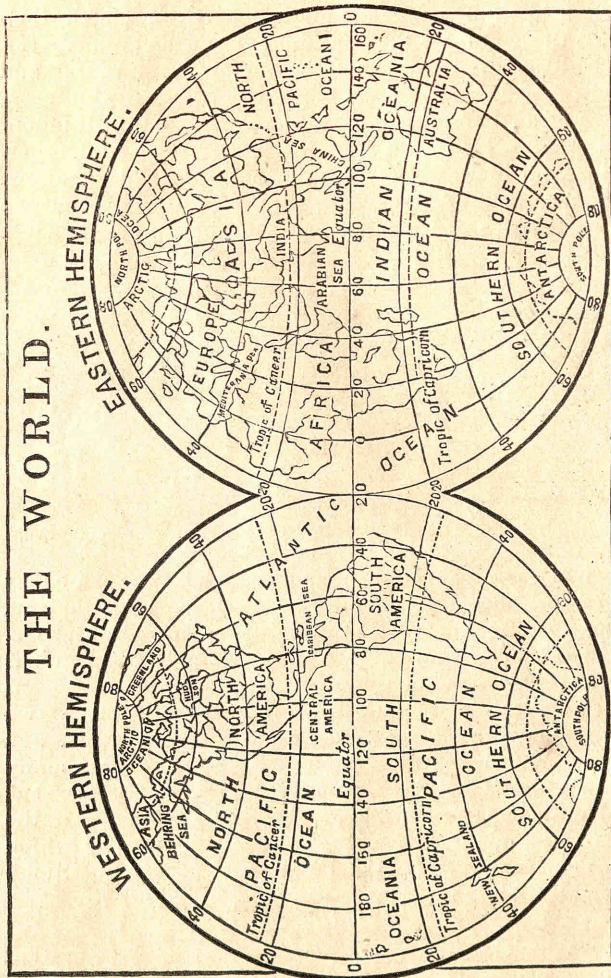
till it has passed through the shadow. In the same way the Moon sometimes comes between us and the Sun, hiding a part or the whole of the Sun from us for a time, and then there is an **Eclipse of the Sun**. The Earth is then in the shadow of the Moon.

All the larger planets have moons except the two which are nearest the Sun, Mercury and Venus, and most of them have more than one. Saturn has as many as ten, as well as three wonderful rings. Jupiter has eight moons, Uranus four, and Neptune one. All the moons, like our own, revolve round the planet to which they belong, and are carried along by it round the Sun.

THE RELIEF OF THE EARTH

If we look at the surface of the earth, we find that in some places it is higher than the sea-level and in

THE WORLD.



others lower. The parts that are at the sea-level or not more than a few hundred feet high are said to be flat and are called **Plains**. These are commonly found near the sea-coast and watered by a large number of rivers. Rail-roads and canals can be constructed here without much difficulty.

The land which is higher than the surrounding plain is called a **Hill**; if it is still higher and more difficult to climb, we call it a **Mountain**. This is how mountains are generally formed: some parts of the earth are soft and some are hard. The soft parts harden by cold and get lower and lower than the adjacent hard parts, which gradually increase in height and form mountains. It takes thousands and thousands of years for the formation of a mountain. If mountains are continuous and in a line, they are called a **range**. And the low lands which lie between mountains and hills are known as **valleys**.

Mountains are useful in several ways :

1. They form natural barriers to countries and make invasion by enemies difficult.
2. They stop the moisture-bearing winds and clouds and make them drop their moisture as rain in the neighbouring lands, thus helping to their fertility.
3. They supply stone for the construction of buildings, bridges, anicuts, &c., and produce large quantities of valuable timber-trees, medicinal herbs and roots. They also contain mines which produce minerals such as iron, coal, copper and gold. These vegetable and mineral products enable people to trade with other countries and become rich.

THE WIND

The air we breathe is constantly in motion and is then called **Wind**. The following experiment will show you how the movements of the air are caused. Take an ordinary lamp glass divided into two parts by a piece of

tin plate cut in the form of T square, and burn a candle within it. If a lighted taper is brought near the top of the lamp glass to one side of the tin plate, you see its flame blown *upwards*. Why is it? It is because a current of *warm air rises*. Now hold the flame to the other side of the plate, it is blown *downwards*. This is because a current of *cold air is rushing in*. We see from this that air when heated gets *lighter* and therefore *rises* and the cold air rushes in below. It is this action taking place on a large scale that is the cause of winds.

The sun heats unequally the different parts of the earth, and it is especially hot near the equator. The air near the equator therefore expands and rises, and cooler air comes in to take its place. In this way two currents of air or winds are produced—one, warm, flowing out, and the other, cold, flowing in.

The winds that blow steadily over the sea on both sides of the equator all the year round are called **Trade Winds**. As they always blow in one direction, they are very useful to sailors.

Some winds blow from one direction at one period of the year and from another direction at another period. These are called **Monsoons**, from a Persian word meaning 'Season.' They are caused by the alternate heating and cooling of large tracts of land in the hot and cold months of the year respectively.

CLOUDS

If a wet piece of cloth is left in the sun, it becomes dry in a short time. How does this happen? The water in the cloth has turned into vapour by the heat of the sun and disappeared in the air. Again, if we boil water in a vessel over a fire, it gradually changes into steam and mixes up with the air. Now hold the side of a slate against the steam: you will find that the steam settles on the slate in fine drops of water, which shows that the

steam has again turned into water by coming in contact with a cold surface.

Now this is what is always taking place on a vast scale on the surface of the earth. The heat of the sun is constantly turning into vapour large quantities of water from the ocean, seas, rivers and lakes. The vapour rises because it is lighter than the air, and is at first invisible. But as it rises higher and higher, it meets with a greater degree of cold and is condensed, and we see it in the form of **clouds**.

The distance of the clouds from the earth is, on an average, between one and two miles. It is greater in summer than in winter.

RAIN

The clouds are driven about by the winds, and when they become full with additional vapour drawn up from the sea, they fall back into the sea or on land as **Rain**.

Other clouds are blown over the land till they reach cold mountains and hills. There they are rapidly condensed and rain falls upon the mountain slopes and adjacent parts.

A part of the rain that falls on land sinks into the ground and affords moisture to vegetable life. Another portion finds its way into wells, tanks, lakes and rivers.

RIVERS

Rivers commonly take their *source* in mountains. The rain that falls on them flows into small streams which unite and form rivers. Some rivers are supplied with water in summer by melted snow from the tops of high mountains. As they flow along they receive fresh streams or feeders, which are called **tributaries**. After fertilizing the land through which they pass, rivers enter the sea at what are known as their **mouths**.

The following are among the chief uses of rivers :—

1. Most of the water for the villages and towns is got from the neighbouring rivers and used for drinking, washing, bathing and other purposes.

2. Rivers form the chief means of irrigation. They not only supply the fields with water, but bring large deposits of mud and enrich the soil. They also drain away excess water from the land. Otherwise, a great many fields would be under water for a long time and yield very little return.

3. Rivers have great influence on commerce. They form waterways for boats and ships which carry goods from one place to another. For this reason large cities and towns are built by their side.

CLIMATE

Climate may be defined as the average condition of the atmosphere. It depends upon several things.

1. The position of a place on the earth's surface is one of the factors determining its climate. If it is near the equator the climate is hot. And it is cooler according to its distance north or south from the equator.

2. The height of a place above the sea-level affects its climate. The higher a place, the cooler it is.

3. In hot weather the sea is cooler than the land and the cool winds from it moderate the heat of the land ; while in cold weather the sea does not give up its heat so readily as the land, and the warm winds from it reduce the cold of the land. So places near the sea have a more equable temperature than those distant from it.

4. The nature of the prevailing winds, too, has an effect on the climate of a place. Warm winds bring warmth and cold winds cold to the regions they blow upon.

5. Mountain ranges, by their position, may keep off warm or cold winds from a place. They may intercept clouds and make them drop their moisture or they may let them pass off to other regions. Thus

the presence and direction of mountain ranges affect the climate of a place.

THE CONTINENTS AND OCEANS

We have seen that the surface of the Earth is divided into two Hemispheres by the Equator. These are called the Northern and the Southern Hemispheres. For geographical purposes it is also divided into two Hemispheres by a line passing round it through the Poles. This dividing line runs north and south a little to the west of Africa, and divides the 'Old World,' or Eastern Hemisphere, from the 'New World,' or Western Hemisphere. The Old World is so called because it was well known long before the 'New World' was discovered.

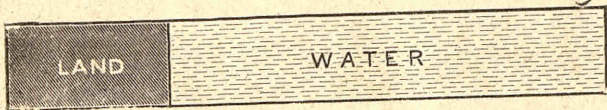


Fig. 8. Proportion of Land and Water Surface.



Fig. 9. Land and Water in the Northern Hemisphere.

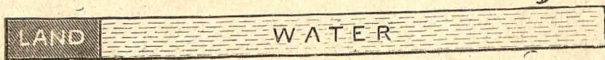


Fig. 10. Land and Water in the Southern Hemisphere.

A glance at the map of the world will show that the greater part of the surface of the Earth is covered with water. The proportion of land to water is shown in Fig. 8, and is about 4 to 11. It will also be seen that most of the land is in the Northern Hemisphere. The proportion of land north of the Equator to that south of it is as 25 to 10. There is

about the same difference in the amount of land in the Eastern and Western Hemispheres. Figs. 9 and 10 show the relative amount of land and water in the Northern and Southern Hemispheres respectively.

The Continents

The **Eastern Hemisphere** includes the continents of **Europe, Asia, Africa** and **Australia**. Europe and Asia, because they form together one vast land mass without any very marked natural division, are sometimes treated as one continent under the name **Eurasia**. They lie entirely in the northern Hemisphere.

Africa lies to the south of Europe, from which it is separated by the *Mediterranean Sea*. It extends almost an equal distance on each side of the Equator, but more than two-thirds of its area is in the Northern Hemisphere. Africa is joined to Asia by the *Isthmus of Suez*.

Australia is an island-continent south of the Equator and south-east of Asia. Under the name **Oceania** are included the continent of Australia and a very large number of smaller islands lying to the north and east of it.

The Antarctic Continent, also an island-continent, probably as large as Australia, surrounds the South Pole.

The **Western Hemisphere** includes the two continents of **North** and **South America**, North America being entirely and South America partially, north of the Equator. These two continents are united by the *Isthmus of Panama*.

Asia is the largest continent; Australia is the smallest; Europe comes next. Africa is three times the size of Europe; Asia, about four times. The Antarctic continent is not included, as its size is not known.

The great divisions of land generally widen towards the north, and taper to points in the south. Africa

and South America resemble each other in being vast peninsulas.

In the Eastern Hemisphere the great mountain ranges run from west to east; in the Western Hemisphere, from north to south.

The northern continents are penetrated by seas; the southern continents are compact in form. Europe, compared with its size, has the greatest extent of coast line; North America comes next, and Africa last.

The Oceans

The waters of the world are divided into five great oceans and many seas and smaller divisions.

The **Pacific Ocean** lies between Asia and Australia in the west, and North and South America in the east. It is by far the largest ocean and includes nearly half the water area of the Earth.

The **Atlantic Ocean** lies between the Americas on the west, and Europe and Africa on the east.

The **Indian Ocean** lies south of Asia and between South Africa on the west and Australia and the Malay Archipelago on the east.

The **Arctic Ocean** lies round the North Pole and the **Antarctic Ocean** surrounds the Antarctic Continent.

The **Pacific Ocean**, nearly oval in form, contains about 72,000,000 square miles. It covers one-third of the globe, and is nearly equal to all the other oceans taken together. Its islands are very numerous.

The **Atlantic Ocean** contains about 35,000,000 square miles, and is about half the size of the Pacific Ocean. It is the most frequented of all the Oceans. The **Indian Ocean** is compact in form; but its northern part is divided by India. It contains about 25,000,000 square miles. The **Arctic Ocean** and the **Antarctic Ocean**, each containing about 5,000,000 square miles, are mostly covered with thick ice, and are very little known.

Fig. II shows the relative sizes of the continents and oceans. The figures denote the area of each in millions of square miles.

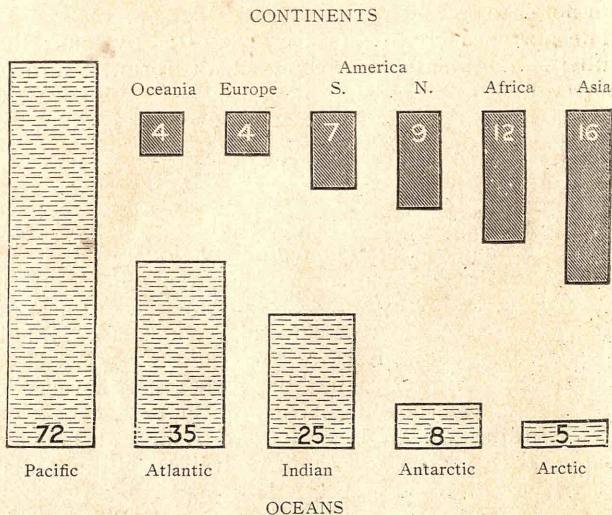


Fig. II. Comparative Sizes of Continents and Oceans.

The bottom of the Ocean contains mountains and plains, just like the land. The deepest part of the Ocean yet measured is about $5\frac{3}{4}$ miles. This is in the Pacific Ocean, to the east of Japan. The greatest depth yet measured in the Atlantic Ocean is about 5 miles. As a whole, the Pacific is considerably deeper than the Atlantic, the former having an average depth of nearly 4 miles and the latter of under $2\frac{1}{2}$ miles.

On the surface the waters of the ocean are often warm, but at great depths they are always icy-cold.

THE PHYSICAL FEATURES OF THE INDIAN EMPIRE

BOUNDARIES.—India forms the central peninsula of Southern Asia. It is bounded on the north by the Himalaya Mountains; on the east by the Indo-Chinese Peninsula and the Bay of Bengal; on the south by the Indian Ocean; and on the west by the Arabian Sea, Persia, Afghanistan and the Hindu-Kush range.

SIZE.—The Indian Empire extends over 2,000 miles from north to south and 2,500 miles from east to west. The entire area is about 1,800,000 square miles.

It is thus about fifteen times the size of the British Isles or nearly one-sixth of the whole British Empire.

ISLANDS.—The **Laccadives** are low coral islands about 150 miles west from the coast of Malabar.

Ceylon is to the south-east of India, being separated from it by the **Gulf of Mannar**, **Pamben Passage** and **Palk Strait**. The **Andamans** and **Nicobars** are groups in the Bay of Bengal. The **Mergui Archipelago** is at the extreme south of the coast of Burma.

COASTS.—The coast line, nearly 5,000 miles in length has a few inlets. The largest are the **Rann of Cutch** and the **Gulf of Cambay**, both on the western side. The **Gulf of Mannar** lies between India and Ceylon, and the **Gulf of Martaban** in Lower Burma. Of these, only the last named is useful for commercial purposes, the port of Rangoon being approached by it.

CAPIES.—**Cape Comorin** is the most southerly point of India. **Point Calimere** is opposite North Ceylon. **Cape Negrais** is in Burma.

MOUNTAINS

The **Himalaya Mountains**, in the north, are the loftiest range in the world, their average height being over 18,000 feet. The highest peak yet discovered is **Mount Everest**, 29,000 feet above the level of the sea. **Kanchanjanga** and **Godwin Austen** are next in height, each being over 28,000 feet. Then come **Nanga Parbat**, 27,000 feet, and **Dhwalagiri**, 26,800 feet.

Himalaya means *home of snow*. The length of the chain is about 1,750 miles, and its breadth averages between 150 and 250 miles. It runs from the Hindu Kush first in a south-eastern, and then in an eastern direction, separating India from the vast table-land of Tibet.

The **Sewalik Hills** are a low range, at the foot of the Himalayas between the rivers Ganges and Sutlej.

On the west, the **Sulaiman Range** separates India from Afghanistan.

The highest point is **Takht-i-Sulaiman** (Throne of Solomon), 11,500 feet high. The **Hala Range** separates Baluchistan from Sind.

On the east, the more or less parallel ranges of Burma are a continuation southwards of the eastern end of the Himalayan chain. The **Patkoi Hills**, the **Naga Hills** and the **Lushai Hills** are continued southwards in the **Arakan Yoma** which ends in Cape Negrais. The **Pegu Yoma** and the **Rung Lung** are the other ranges.

The **Aravalli Hills** lie between the basins of the Indus and the Ganges.

The general elevation is about 3,600 feet. The most elevated summit is **Mount Abu**, 5,650 feet above the sea.

The **Vindhya Mountains** run in an easterly direction from the Gulf of Cambay, forming the northern boundary of the valley of the Narbada.

The **Sapura Range** lies between the Narbada and the Tapti.

The **Western Ghats** form the western boundary, and the **Eastern Ghats** the eastern boundary of the table-land of the Deccan. The Western Ghats extend from the river Tapti to the south of the State of Mysore, where the **Nilgiris**, running east and west, unite them to the Eastern Ghats. A continuation of the Western Ghats extends to Cape Comorin.

The **Western Ghats**, or **Sahyadri Mountains**, rise abruptly within 30 or 40 miles of the coast. Their length is about 1,000 miles, and they range from 3,000 to 8,000 feet above the sea. South of the Nilgiris is the **Palghat Gap**, the only break in the western hills from the Tapti to Cape Comorin. South of the Gap the land rises abruptly, and the **Anamalais** and the **Travancore Hills** continue the chain to the extreme south of the Peninsula. The Anamalais contain the highest peaks in South India. The **Eastern Ghats** are much farther from the sea, and not so high. They are likewise less continuous, being broken by rivers from the table-land. Portions of them receive different names in different districts.

PLAINS AND TABLE-LANDS

There are four principal plains. The **Plain of the Ganges**, the largest and richest in India, slopes to the south-east; the sandy **Plain of the Indus**, in the west, slopes southward; the **Eastern Coast Plain** is a broad belt lying along the east coast of the Peninsula; the **Western Coast Plain** is a narrow strip along the west coast.

The Plains of the Ganges and Indus meet in the Punjab. The Eastern Coast Plain is often improperly called the Karnatic. The word means the Kanarese country, above the Ghats, where Kanarese is spoken.

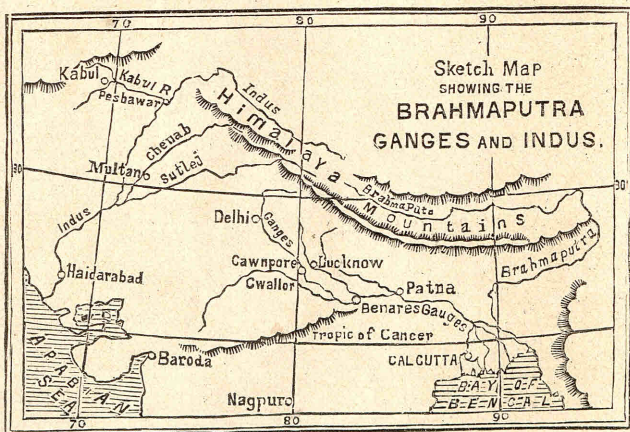
A high plain is called a *table-land* or *plateau* (plato') India has two principal table-lands, each triangular in shape. The **Plateau of the Deccan**, the larger, is

enclosed by the Ghats, and slopes towards the east. The **Plateau of Malwa**, bounded on the south by the Vindhya Range, slopes towards the north.

The mean elevation of the Deccan Plateau is about 2,000 feet. The Plateau of Malwa drains into the Ganges.

RIVERS

India, north of the Vindhya Mountains is drained chiefly by three large rivers, the **Indus**, the **Ganges** and the **Brahmaputra**, which all rise near each other in the Himalayas.



The **Indus**, the largest river in India, rises on the northern side of the Himalaya Mountains, and falls into the Arabian Sea. Five rivers which water the Punjab, called the **Jhelum**, **Chenab**, **Ravi**, **Beas** and **Sutlej**, enter the Indus by one channel, called the **Panjad**. The **Kabul River** is the principal tributary on the west.

The source of the Indus is 16,000 feet above the level of the sea. Its length is about 2,000 miles, but the stream in general is not deep.

The **Ganges** rises on the southern slopes of the Himalaya Mountains, and, after a course of 1,500 miles, enters the Bay of Bengal. The **Hugli** is its best known mouth.

The Ganges derives its waters from the snow and rain which fall upon the Himalaya Mountains. The two main sources are the **Bhagirathi** and **Alaknanda** which unite in Gharwal.

The principal tributaries of the Ganges are the **Jumna** and **Gogra** from the Himalaya Mountains, and the **Sone** from the Vindhya Range.

The **Ramganga**, the **Gumti**, the **Gandak**, and the **Kusi** are other large tributaries from the north. The **Chambal** from the Vindhya Range, falls into the Jumna.

The **Brahmaputra** rises on the northern side of the Himalayas, and joining the eastern mouth of the Ganges, falls into the Bay of Bengal.

In the upper part of its course it is called **Sanpu**, and where it enters **Assam**, the **Dihong**. The total length is about 1,800 miles.

The rivers of Burma flow in parallel valleys from north to south; in the western valley, the **Chindwin** and the lower course of its main stream—the **Irawadi**; in the central one, the upper course of the **Irawadi** and the **Sittang**; and in the east, the **Salwin**.

The **Mahanadi**, **Godavari**, **Krishna** and the **Kaveri** fall into the Bay of Bengal.

The length of the **Mahanadi** is about 520 miles; of the **Godavari**, 900 miles; of the **Krishna**, 800 miles; and of the **Kaveri**, about 470 miles. The **Tungabhadra**, formed by the junction of the **Tunga** and **Bhadra**, is a large tributary of the Krishna.

The **Northern Pennar**, the **Palar** and the **Southern Pennar** are smaller rivers, falling into the Bay of Bengal.

The **Tapti** and the **Narbada** flow westward into the Gulf of Cambay.

The course of the **Narbada** is about 800 miles ; that of the **Tapti** about 450 miles. Their beds are often rocky.

LAKES

India has only a few small lakes. The chief fresh water lake is **Colair**, between the Godavari and Krishna. **Sambhar** is a salt lake in Rajaputana. **Chilka Lake** and **Pulicat Lake**, on the east coast, and the **Backwaters** on the west coast, are more or less connected with the sea. The **Backwater** in Cochin is the largest of these, extending about 120 miles from north to south.

THE MADRAS PRESIDENCY

MADRAS, the southern-most Province of British India, is bounded in the west, south and east by the open sea. Its northern boundary, running from west to east touches the Presidency of Bombay, the Mysore State, the Nizam's Dominions, the Central Provinces and the Province of Bihar and Orissa. The area of the Presidency, exclusive of the feudatory states of Travancore and Cochin and the Province of Coorg is about 144,000 square miles or rather more than one-twelfth of the Indian Empire.

Its greatest length from north-east to south-west is approximately 950 miles and its maximum width 450 miles. The coast line is about 1,800 miles.

SURFACE.—The Presidency includes part of the tableland of the **Deccan**; but it consists chiefly of two plains, one lying between the **Eastern Ghats** and the **Bay of Bengal** and the other between the **Western Ghats** and the **Arabian Sea**. The eastern plain, called the **Carnatic**, is narrow in the north and gradually widens towards the south to a breadth of about 150 miles. Excepting the northern portion it is generally flat. The western plain—the **Konkanam**—is much narrower and only about 50 miles wide.

The **Western Ghats** (average height, 3000 ft.) and **Eastern Ghats** (average height, 1,500 ft.) are the chief mountain ranges, and are united in the south by the **Nilgiris**. The **Shevaroy Hills** are a separate group, south-west of Madras. The **Anamalais** and the **Pulnis** are spurs¹ to the eastward, from a continuation of the Western Ghats.

¹ Small ranges of mountains running out from larger ones.

Dodabetta, the highest peak of the Nilgiris, is 8,760 feet above the sea. The **Palghat Gap**, south of the Nilgiris, is the only break in the line of the Western Ghats. The Anamalais contain **Anamudi Peak**, the highest point in South India, is 8,837 feet above the sea. The **Nagari Hills** are a small range, north-west of Madras.

RIVERS.—The **Godavari** and the **Krishna** in the north; the **Northern Pennar**, the **Palar**, the **Southern Pennar** and the **Kaveri** towards the centre, enter the Bay of Bengal.

The Kaveri is the largest river south of the Krishna. Its principal tributaries are the **Bhavani** and the **Amravati**. The Kaveri forms a large delta.¹ Its northern mouth, called the **Coleroon**, is the most important. Like many of the large rivers of India, it is regarded as sacred by the Hindus. The **Vaigai** and the **Tambraparni** enter the sea to the south.

CLIMATE AND RAINFALL.—The climate is hot, especially on the east coast. As no part of the Presidency is far from the coast, the extremes of heat and cold are not so great as in North India.

The following are the chief types of weather in the Madras Presidency and the periods during which they prevail:—

1. **COLD WEATHER.**—From the end of December to the end of February.

2. **HOT WEATHER.**—From the beginning of March to the end of May.

3. **SOUTH-WEST MONSOON.**—From the beginning of June to the beginning of October.

4. **NORTH-EAST MONSOON.**—From the middle of October to the middle of December.

During the **cold weather**, the hottest area is in the southern districts of Trichinopoly, Madura and Tinnevely, and the coolest areas in the plains are in the districts of Ganjam, Vizagapatam, Godavari, Bellary, Anantapur and Kurnul. On the Nilgiri Hills, light frosts occur in the cold months.

In January, showers of rain fall at the time of Pongal or Sankranti festival, when the Hindus offer boiled rice and milk to propitiate the sun-god. Showers also fall in March and April

¹ A delta is land at the mouth of a river, shaped like the Greek letter Δ called delta.

at the time of the blossoming of the coffee plant and the ripening of mangoes.

During the **hot weather**, the hottest areas are the four Deccan districts—Cuddapah, Kurnul, Bellary and Anantapur—which, owing to the deficiency of rainfall, suffer more from famine than any others.

Anantapur, the driest district in the Presidency, has only about 17 inches of rain a year.

The South-West Monsoon which blows from the Arabian Sea brings a very large quantity of clouds and rain to the west-coast region, where the average rainfall is 130 inches a year.

The North-East Monsoon from the Bay of Bengal brings clouds and rain to the east coast, where the rainfall is 40 inches.

The ghats intercept the rain-clouds and the fall in the tableland is only 30 inches a year. The supply of rain decreases towards the south.

CHIEF PRODUCTS.—1. Mineral. *Iron* is plentiful, especially in Salem and Bellary; *manganese ore* is found in Vizagapatam and *mica* in Nellore; *plumbago* is got and worked in the Eastern Ghats and Travancore; Wynaad, near Malabar, has a number of *gold mines* which, however, are not advantageous to work; some *gold mines* have recently been discovered in Anantapur; a few *diamonds* are met with in the Godavari and Kistna Districts. *Salt* is obtained by the evaporation of sea-water in the lagoons.

2. Vegetable. The chief grains grown are *rice* and *millet*s. *Pulses*, *oil seeds*, *cocoanut*, *sugarcane*, *tobacco*, *cotton*, *indigo*, *coffee*, *tea*, *pepper* and *cardamom* are the other articles of produce.

Rice requires high temperature and plenty of water and is cultivated along the coast.

*Millet*s (which include *ragi*, *cholam*, *cumbu*, *varagu*, etc.) and *pulses* are grown in the interior and form the chief food of the people where *rice* cannot be grown.

The chief *Oil-seeds* produced are *sesamum* and *ground-nuts*. The latter are raised in large quantities in the high ground of the plains. *Oil* is extracted from

these and from cocoanut which is largely cultivated in the west-coast districts and sandy river basins.

Sugarcane thrives in rice fields and gardens where there is plenty of water. For cultivation the ripe cane is cut into pieces at the joints and these are planted in rows.

Tobacco requires a special soil with abundant water and is grown in deltas and places well supplied with wells.

Cotton does not require much water. It thrives splendidly in the black cotton soil and is grown nearly everywhere where the rainfall is moderate.

Indigo which yields a blue dye requires clayey or muddy soil and is sometimes grown in rice-fields when sufficient water cannot be had for rice cultivation.

Tea requires a wet climate, but a sloping soil from which water can drain easily is best suited to it. It is grown on the Nilgiris.

Coffee requires less moisture than tea and thrives where the rainfall is not heavy. It is chiefly produced in Coorg, Mysore and in the south.

The spices *pepper* and *cardamom* require moderate heat and cold and are produced in the west-coast districts.

Tanjore, Vizagapatam and Kistna are large rice-fields. Tinnevely, Bellary, Ramnad, Guntur and Coimbatore are the chief cotton districts; Cuddapah and South Arcot produce most indigo; Guntur, Coimbatore, Vizagapatam, Godavari and Madura are noted for their tobacco and Vizagapatam for its sugar cane.

The timber trees of the Western Ghats are valuable, the chief being teak, sandal wood and ebony. The Deccan forests produce sandal wood and red sanders.

3. Animal. Cattle are commonly reared and are of great use to farmers for drawing the plough, cart, piccota, etc. They also yield milk. The cattle-dung forms an excellent manure to fields.

The sheep, owing to the hot climate, yield only inferior wool, of which coarse blankets are made. They are reared chiefly for their skin and flesh.

In the west-coast districts, elephants are trained for carrying and drawing heavy loads of timber, etc.

Among the wild animals may be mentioned the fox, the wolf, the deer, the wild boar, the cheetah and the tiger.

Besides the common domestic birds, wild birds of different kinds and colours are found in large numbers.

PEOPLE, LANGUAGE AND RELIGION.—The population is over 42 millions, mostly Dravidians, of whom about half a million live in the Native States of Pudukotah, Banganapallee and Sandur. In the fertile southern districts the average is 450 to the square mile; in the rainy west coast regions about 400; in the rainless Deccan Plateau 150; and in the mountain and forest regions of Northern Circars 100.

The chief languages are Tamil, spoken by about 17½ millions, chiefly in the south-east; Telugu, spoken by nearly 16 millions, chiefly in north-eastern districts; Malayalam, spoken by nearly 3½ millions, in the south-west; Uriya, spoken by over 2 millions, chiefly in Ganjam; and Kanarese, spoken by over 1½ millions, in the districts bordering on Mysore.

Of the population 89 per cent are Hindus, 7 Muhammadans and 3 Christians. Most of the Hindus are Saivas and their temples are the largest in India.

The Muhammadans loom largest in Malabar and South Canara, where the Mappilla community which forms 37 per cent of the total Muhammadan population predominates, in the little States of Banganapallee and Sandur and in the territories of Cuddapah, Kurnul and Bellary. Their number is small in Ganjam, Vizagapatam, Godavari and Chingleput.

Indian Christians are more numerous in this Presidency than in any other part of India except Travancore,

and they are found in considerable numbers in Tinnevely, Guntur and South Canara.

EDUCATION.—A vast majority of the people are illiterate, only about 75 per thousand knowing to read and write. Education is but slowly progressing. In 1911, about 138 men and 13 women per thousand of each sex could read and write.

INDUSTRIES.—About 70 per cent of the people are employed in agriculture. Weaving and dyeing are other important industries. The preparation of the raw products of the province—cotton, oil, tobacco, indigo and sugar—is increasing. Cigar-making is a flourishing industry in the south. Brass and aluminium vessels and pottery are made in certain parts. There is a little mining, and along the coasts the villagers engage in fishing.

IRRIGATION AND CANALS.—Madras is distinguished among the Provinces of India for the number and extent of its irrigation works. There are over 75,000 tanks in which water is stored for irrigation purposes, the largest being the costly reservoirs of the Periyar and Rushikulya works, each of which occupies an area of over 10 square miles. There are vast systems of irrigation canals from the Godavari, Krishna, Kaveri and Pennar, which water nearly 4,000 square miles of land. A salt-water canal, which runs north and south from Madras, and the backwaters on the south-west coast are used for navigation.

RAILWAYS.—The railways of the Madras Presidency belong to two main systems, *viz*, the Madras and Southern Mahratta Railway and the South Indian Railway.

The Madras and Southern Mahratta Railway forms complex net work of main and branch or feeder lines. The north-east line which connects Madras with Calcutta, joins the Bengal-Nagpore Railway at Waltair near Vizayanagaram. The north-west line connects Madras with Bombay, passing north-west through the

Deccan districts and joining the Great Indian Peninsula Railway at Raichur. Another line by which Bombay is eventually reached from Madras passes through Bangalore in the Mysore State and meets the Great Indian Peninsula Railway at Poona.

The South Indian Railway has two main lines, with various branches, which run respectively to the west coast and southward to Dhanushkodi. The former with running powers from Madras to Jolarpet passes west to Shoranur and thence up the west coast to Mangalore in South Canara. A southern branch connects Shoranur with Ernakulam in Cochin. The southern line, starting from Madras, runs now near the coast and now far inland to Dhanushkodi, which is connected by steamer service to Talaimannar on the Ceylon Government Railway. The most important branch lines are those which connect the main line with Katpadi, Pondicherry, Negapatam, Erode, Tuticorin and Quilon.

COMMERCE.—The chief exports are raw cotton, cotton goods and cotton twist and yarn, hides and skins, oilseeds, rice, grains and pulses, coffee, tea, copra, coir, spices, oils, drugs, timber, indigo and sugar; the chief imports are cotton goods, metals, railway materials, oils, machinery, clothing, spices, sugar, liquors, glass-, china- and enamel-ware, paper, books, areca-nuts, tinned milk, biscuits, soaps, candles and matches.

The annual value of foreign trade is about 230 million rupees—about one-fifth that of Bengal and less than one-third that of Bombay. Next to Madras, Tuticorin, Cochin, Cocanada and Calicut are the principal seaports.

GOVERNMENT.—The Presidency is under a Governor aided by two Councils.

The Legislative Council makes laws; The Executive Council carries them out. The revenue administration is under the Board of Revenue.

For the purpose of general administration the Presidency is divided into Districts, the principal District

Officers being the Collector and District Magistrate and the District and Sessions Judge. The other officers of the District are the Sub-Collector, the Deputy Collector, the Executive Engineer, the District Forest Officer, the District Medical Officer and the Superintendent of Police. The District is sub-divided into Taluks which are in charge of Indian Tahsildars or Revenue Officers. The villages which form the Taluks are looked after by the Village-Munsiffs who are responsible for the collection of revenue.

HISTORY.—Madras was founded by the English in 1639. Chingleput, called the Jaghire, was acquired in 1763 ; two years later the Northern Circars were ceded. Most of the other Districts came under the British about the close of the eighteenth century after the Mysore Wars.

In early times there were several Hindu Kingdoms in South India, often at war with one another. Andra or Telingana, occupied the Telugu country ; the Chola Kingdom included the north, and the Pandian Kingdom the south, of the Tamil country ; a race of kings, called cheras, ruled over the Malayalam country ; the kingdom of Vijayanagar occupied the Kanarese country. A great part of South India was conquered by the Muhammadans and new states were formed.

REVENUE.—The revenue is over 150 million rupees a year.

DIVISIONS.—The Presidency has been roughly divided into five natural divisions, viz., (1) The Agencies Division in the north-east, including the mountainous and wood tracts of the Ganjam, Vizagapatam and Godavari Districts.

(2) The Deccan Division or the table-land between the Western and the Eastern Ghats.

(3) The East Coast Division extending from Ganjam to Nellore District.

(4) The Southern Division comprising the whole of the Tamil country extending from the south-east of Mysore to the Bay of Bengal.

(5) The West Coast Division including the strip between the Western Ghats and the Arabian Sea.

For administrative purposes the Presidency is divided into 25* Districts. Of these there are six districts in the Agencies and East Coast Divisions, *viz.*, Ganjam, Vizagapatam, Godavari, Kistna, Guntur and Nellore—all coast districts.

The Deccan Division contains four districts, *viz.*, Cuddapah, Kurnool, Bellary and Anantapur.

The Southern Division comprises the six coast districts of Madras, Chingleput, South Arcot, Tanjore, Ramnad and Tinnevely and the six inland districts of Chittoor, North Arcot, Salem, Coimbatore, Trichinopoly and Madura.

The three coast districts of South Canara, Malabar and Anjengo and the inland mountainous district of Nilgiris are in the West Coast Division.

1. MADRAS DISTRICT

MADRAS, the smallest district in the Presidency excepting Anjengo, includes only the city of Madras and its suburbs, covering an area of 27 square miles. On the land side, it is surrounded by the district of Chingleput. Though small as a district, it is the largest city in South India, and is important as being the seat of Government.

Madras stretches for 9 miles along the coast, and $3\frac{1}{2}$ miles inland. It is 770 miles from Calcutta and nearly 800 miles from Bombay. In 1639 the English obtained from the Raja of Chandragiri a grant of the land on which the city now stands. They built a fort, around which people gathered for protection and trade.

SURFACE.—Madras is so low and flat that its drainage is difficult. A small river, called the **Cooum**, winds through the city, but its scanty supply of water is generally stagnant. Another small river, called the **Adyar**, forms the southern boundary. Water is supplied from the **Red Hills Lake**, to the north-west of the city, fed by the **Cortelliar** river.

CLIMATE.—The climate is hot, but not unhealthy, and in the hottest part of the year the heat is greatly

* Or 26 districts, if Anjengo be considered as a 'District'.

moderated in the afternoon and evening by sea breezes. The average rainfall is about 49 inches a year. The rains fall chiefly in October and November.

PEOPLE.—The population is about 520,000. Nearly four out of five are Hindus; Muhammadans are one in nine; Christians, one in twelve. **Tamil** is spoken by three-fifths of the people; **Telugu** by one-fifth. The Muhammadans generally use **Hindustani**.

DIVISIONS.—Madras, the seat of Madras Government from October till April, is rather a collection of towns and villages than one city. It is the largest city of South India and the third largest in the Indian Empire. The Fort, now occupied by the Government Secretariat, is called **Fort St. George** after George II of England, in whose reign it was chiefly built. It contains the barracks and military offices. **Georgetown** (formerly **Black Town**), to the north, thickly peopled, includes the banks, merchants' offices, shops and bazars. Equally densely peopled is **Triplicane**, south of the Fort, where a large number of Muhammadans live. Here are two mausoleums and a large Vaishnavite temple. **Mylapore** contains a large Saivite temple. A large proportion of the Eurasian community lives in **Vepery**, a division west of the Fort. The principal European quarters are **Egmore**, **Chetpet**, **Kilpauk**, **Nungambakam**, **Teynampet** and the north bank of the **Adyar** river. **Royapuram** lies north of Georgetown; **Perambore**, in the north-west, has large railway workshops. **Pursewakum** is a populous district south of Perambore.

North of the Fort are the **Law Courts**, surmounted by the light-house, 166 feet above the sea-level. The open space, called the **Island**, is formed by the Cooum river. The other open spaces are the **People's Park**, the **Napier** and **Robinson Parks**, and the gardens of the **Agri-horticultural Society**. The **Marina** runs along the sea-face from the **Napier Bridge** southward to **St. Thomé**.

EDUCATION.—Although Madras is noted for its schools and colleges, there are many in it who do not know to read and write. There are about 450 Elementary and 20 High Schools in the city and about 52,000 pupils receive primary instruction. The city also contains four **Arts Colleges** for men and two for women, besides a **Medical College**, a **Veterinary College**, a **Law College**, an **Engineering College**, a **College of Commerce** and a **School of Arts**.

Among other institutions of educational value and public interest may be mentioned the **Observatory**, the **Marine Aquarium**, the **Museum** and the **Connemara Public Library**.

COMMUNICATIONS.—Three lines of the **Madras and Southern Mahratta Railway** start from Madras. The north-east line connects Madras with Calcutta joining the **Bengal Nagpur Railway** at Waltair. The north-west line connects Madras with Bombay, passing the Deccan districts and meeting the **Great Indian Peninsula Railway** at Raichur. The south-west line runs through the Mysore state and joins the **Great Indian Peninsula Railway** at Poona.

The **South Indian Railway** connects Madras with the Southern and West Coast districts.

The **Buckingham Canal**, more than 250 miles long, runs from South Arcot in the south to Nellore in the north, passing through Madras.

COMMERCE.—Madras ranks fifth among the Ports of the Indian Empire. The chief exports and imports have already been mentioned. As a port Madras labours under the great disadvantage of having no natural harbour. Ships must put to sea for safety on the approach of a cyclone.

2. CHINGLEPUT DISTRICT

CHINGLEPUT, which surrounds Madras on the land side, contains an area of 3,072 square miles and is divided into 6 taluks.

SURFACE.—The district is flat, with the exception of a few rocky hills, covered with jungle. Along the coast there are stretches of sand, separated from the mainland by the **Ennore** and **Pulicat Lakes**. The soil is generally poor, but there are some tracts of paddy fields and cocoa-nut groves.

The **Palar**, in the south, the principal river, is nearly dry for nine months in the year. The district contains some large tanks. The **Cortelliar**, **Adyar**, and **Cooum**, already mentioned, come from Chingleput. Among the tanks may be mentioned the **Red Hills**, **Chembrambakam**, **Chingleput**, and **Madurantakam** tanks.



CHINGLEPUT, ETC.

CLIMATE.—The climate is warm but healthy. The rainfall is rather less than that of Madras, being about 41 inches a year.

PEOPLE.—The population in 1911 was 1,406,008. Nearly all are Hindus; Muhammadans and Christians are about one in 50 each. **Tamil** is the chief language, but **Telugu** is also largely used.

PRODUCTS.—*Rice* is the chief wet land crop. *Ragi* and other *millet*s, *indigo*, *pulses*¹, and *oil-seeds*, are also raised. Weaving, tanning and manufacture of jewels are among the industries of the people. *Salt* is manufactured along the coast.

COMMUNICATIONS.—The **South Indian Railway** runs in a south-westerly direction, passing through the town of Chingleput. The **Madras and Southern Mahratta Railway** crosses the district in a westerly direction. A branch line connects Chingleput, on the former, with Arkonam on the latter. The North-East Line of the Railway runs through the northern part of the district to Nellore. The **Buckingham Canal** passes northward near the coast.

TOWNS.—**Saidapet**, close to Madras, is the headquarters of the district and has a Teachers' College. **St. Thomas' Mount**, **Poonamallee**, and **Palavaram**, are small military stations a few miles from Madras. **Chingleput**, in the south, near the **Palar**, was the former chief station. It contains the Reformatory School where the youthful criminals of the Madras Presidency receive an excellent industrial education. **Conjevaram** (*Kanchivaram*), on the railway between Chingleput and Arkonam, is the largest town in the district, and a noted place of pilgrimage. It was the capital first of the Chola and then of Pallava kings. It is noted for its silk-cloth. **Pulicat** is a small town on Pulicat Lake; **Sadras**, now much decayed, is on the south coast.

Pulicat was the earliest settlement of the Dutch in India. Sadras was also a Dutch settlement, once famous for its muslims. Near it is **Mahabalipuram**, or the **Seven Pagodas**, with rock temples.

3. CHITTOOR DISTRICT

CHITTOOR, to the north-west of Chingleput, has an area of 5,676 square miles and is divided into 9 taluks. It contains four large Zemindaris of which Kalahasti is the chief.

SURFACE.—The northern and western portions of the district are hilly. The Eastern Ghats traverse it on the west: The country to the west of them forms part of the central table-land. The **Nagari Hills** run across the north-eastern corner. The highest peak known as the

¹ Pulses include gram, peas and beans.

Nagari Nose, 2,800 feet high, is a noted landmark for sailors. No important river flows through the district.

CLIMATE.—The climate is hot and some parts are feverish. The rainfall is somewhat larger than in the northern inland districts being from 35 to 40 inches.

PEOPLE.—The population in 1911 was 1,238,742, being mostly Hindus; Muhammadans are about one in 20, and Christians about one in 25. Telugu is the language spoken.

PRODUCTS.—*Ragi* and *cumbu* are the chief grains produced. *Sugar-cane* is raised in certain parts. Satghar, near the foot of the ghats, is noted for its *oranges*. Chittoor is also famous for its *cattle*.

RAILWAYS.—From Tirupati on the north-west line of the **Madras and Southern Mahratta Railway** a branch runs northwards to Nellore; and another runs south-westwards to **Pakala** on the Villupuram-Guntakal line, which crosses the district from south to north, west and north-west.

TOWNS.—**Chittoor**, the chief town is about a hundred miles from Madras on the Villupuram-Guntakal Railway. It is celebrated for mangoes. **Tirupati** is noted for its hill temple, 2,500 feet above the sea, the richest in South India. **Kalahasti**, in the north-east, has the residence of the Raja of Kalahasti, one of the largest Zemindaris of the Madras Presidency. It is noted for its glass bangles and painted cloth. **Tirutanigai** is a small town in the south-east. **Chandragiri** is 16 miles south of Tirupati. It was the residence of the Rajas of Vijayanagar after the battle of Talikot, and the Raja here gave the land on which Madras is built. **Madanapalle**, westward on the ghats at an altitude of 2,250 feet, is a healthy place and a favourite resort of district officials during hot weather. It has a *Tuberculosis Sanatorium*.

4. NORTH ARCOT DISTRICT

NORTH ARCOT, to the south of Chittoor, contains an area of 4,920 square miles and is divided into 11 taluks.

SURFACE.—The western portion of the district is hilly; the other parts are generally flat. The **Jawadi Hills**, in the south-west, which contain peaks 3,000 feet high form part of the boundary between North Arcot and Salem. **Trinomalai** (Tiruvannamalai) is a solitary hill, 2,700 feet high with a famous temple. The chief river is the **Palar**, which rises in Mysore and flows in an easterly direction through the district, but is nearly dry during the hot season.

Trinomalai has been repeatedly besieged. Here Colonel Smith defeated Hyder Ali.

CLIMATE.—The climate is hot, and certain parts are feverish. The rainfall is about 40 inches, rather larger than in the Deccan districts.

PEOPLE.—The population in 1911 was 1,960,960. Nearly all are Hindus; Muhammadans are about three in 50, and Christians one in 50. The language spoken is **Tamil**.

PRODUCTS.—*Rice, cholam* and *ragi* are the principal crops. *Oil seeds, pulses* and *indigo* are also raised. *Ragi* is the chief food of the poor; the wealthier use rice. *Iron* and *copper* are found in some parts of the district. *Weaving* is the chief manufacture; *carpets* and *glass beads* are also made.

RAILWAYS.—The south-west line of the **Madras and Southern Mahratta Railway** crosses the district in the north from east to west. The **Villupuram-Guntakal** line crosses this line at Katpadi.

The north-west line to Bombay starts from Arkonam, in the north-east of the district. Another branch goes from the same station to Chingleput. The branch line from Jalarpet to Bangalore passes through the south-west corner of the district.

TOWNS.—**Vellore**, in the north on the Palar, is the chief town and a military station. A school for training Police Officers is established here, as also a Women's Medical School. The fort, which is close to the junction of the south-west line of the Madras and Southern Mahratta Railway with the Villupuram-Guntakal line, has been a scene of much fighting. It has a beautiful Vaishnavite temple

Arkonam is the junction of the north-west and south-west lines of the Madras and Southern Mahratta Railway. **Arcot**, on the Palar, 15 miles east of Vellore, was formerly the capital of the Nawabs of the Carnatic. It is noted for its defence by Clive in 1751. At Arni, south of Arcot, Sir Eyre Coote defeated Hyder Ali, and at Wandiwash, in the south-east, he defeated the French.

Trinomalai, in the south on the Villupuram-Guntakal Railway is a considerable trading centre and contains a celebrated temple. At one of its festivals a huge beacon is lighted and thousands of people visit the place.

5. SOUTH ARCOT DISTRICT

SOUTH ARCOT, to the south of North Arcot, has an area of 4,208 square miles and is divided into 8 taluks.

SURFACE.—The **Kalrayan Hills** are on the western frontier. In general the district is flat and sandy.

Gingee was a famous fort, on three hills, now deserted.

The **Southern Pennar** flows through the centre of the district, and enters the sea near Cuddalore. The **Vellar**, in the south, flows into the sea at Porto Novo. The **Coleroon** (*Kolladam*), the most northerly branch of the Kaveri, forms part of the boundary between North Arcot and Tanjore.

CLIMATE.—Away from the coast the climate is hot and unhealthy. The slopes of the Kalrayan Hills are very feverish. The rainfall is about 36 inches a year.

PEOPLE.—The population in 1911 was 2,362,566. The district ranks fourth in the number of its inhabitants. Most are Hindus. Muhammadans are one in 34, and Christians one in 33. **Tamil** is everywhere spoken.

PRODUCTS.—*Rice* is the principal crop; but *cumbu*, *varagu*, *rugi*, *cholam*, *oil-seeds*, *sugar-cane* and *indigo* are also largely cultivated. *Cloth*, *salt*, *sugar* and *indigo* are the chief manufactures. The fisheries along the coast are productive. *Iron ore* is abundant.

RAILWAYS.—The **South Indian Railway** runs southward through the district. At Villupuram, a branch line goes eastward to Pondicherry. The **Villupuram-Guntakal Railway** runs north-west.

TOWNS.—**Cuddalore** (Gudalur), the chief station, is a seaport on the South Indian Railway, about 120 miles south of Madras. Near it the Gadilam river unites with the Southern Pennar. The chief exports are grains and ground-nuts. **Fort St. David** was built here about 1687, and when Madras was taken by the French in 1746, Fort St. David was for six years the seat of Government. It was several times taken and retaken.

Villupuram, north-west of Cuddalore, is an important railway station. At **Nellikuppam**, to the south, sugar is manufactured. **Porto Novo**, originally founded by the Portuguese is a seaport and railway station at the mouth of the Vellar river. Here Sir Eyre Coote defeated Hyder Ali. **Chidambaram**, southward on the railway, is one of the most sacred places for the Saivites and noted for its large temple.

Pondicherry (*Puducheri*), the capital of the French Possessions in India, is a beautiful seaport 100 miles south of Madras. It exports large quantities of ground-nuts to France. The water-supply is derived from artesian wells.

6. TANJORE DISTRICT

TANJORE, to the south of South Arcot, contains an area of 3,727 square miles and is divided into 11 taluks.

SURFACE.—There is not a hill in the whole district, which consists mainly of the delta of the Kaveri. The northern branch of the Kaveri, called the Coleroon, has already been described. The main stream spreads out in a network of channels. A heavy surf breaks on the sandy shore. **Point Calimere** is in the south-east of the district.

CLIMATE.—The district of Tanjore is the hottest part of South India. The rainfall is over 40 inches a year. Owing to irrigation and luxurious vegetation the air is, even in the dry months, damp and enervating.

PEOPLE.—Exclusive of Madras, Tanjore is the most thickly-peopled district of the Presidency and ranks third in the number of its inhabitants. The population

in 1911 was 2,362,689, of whom one in 20 were Muhamadans and one in 28 Christians. **Tamil** is the language of nineteen-twentieths of the people.

Tanjore has 634 persons to the square mile, while the average for the Presidency is 292.

PRODUCTS.—Owing largely to an extensive and ancient system of irrigation, Tanjore is the most fertile district in South India. It forms a vast rice field, dotted over with coco-nut groves. The rains on the hills cause the Kaveri to be in flood during the hottest part of the year. *Rice*, the chief crop, is raised on irrigated land. Dry crops are cultivated only to a small extent. *Vegetables, coco-nuts, plantains, the betel-vine, sugar-cane and tobacco* are also grown. *Silk cloths, carpets, and metal ware* are the chief manufactures.

RAILWAYS.—The **South Indian Railway** runs through the District, with branch lines from Mayavaram and Tanjore to Mutupet and Negapatam respectively, crossing each other at Tiruvarur. From Peralam, on the former branch, a short line branches off to Karikal.

TOWNS.—Tanjore, the chief station, is on the South Indian Railway, and has a noted Hindu temple with its colossal stone bull (Nandi). It was the last capital of the Chola Kingdom, and afterwards fell into the hands of the Mahrattas. Its palace contains a Library in which there is a valuable collection of oriental manuscripts. The town is noted for its brass vessels and fine cotton and silk cloths.

Kumbakonam, north-east of Tanjore on the railway, has a large Brahmin population and is an educational centre containing a Government College. It is the largest town in the district and the fifth in the Presidency. It is celebrated for the Mahamakam tank where, it is believed, the holy waters of the Ganges appear once in twelve years and enormous numbers of pilgrims go and bathe *en masse* at the time. Silk cloths and brass vessels are made in this place. **Mayavaram** and **Shiyali** are towns northward on the railway. **Mannargudi** and **Tiruvarur** are south-east of Tanjore. **Negapatam**, connected with Tanjore by rail, is the chief seaport, and has a large export trade in rice. **Nagore**, three miles from Negapatam, has a celebrated mosque. **Karikai**, to the north, is a seaport belonging to the French. **Tranquebar** (*Tarangambadi*), a seaport 22 miles north of

Negapatam, was founded in 1624 by the Danes, and bought from them by the English in 1845. Here the first Protestant Missionaries to India landed in 1706.

7. SALEM DISTRICT

SALEM, to the west of South Arcot, has an area of 6,300 square miles and is divided into 8 taluks.

SURFACE.—In the north-west the land is elevated, being a continuation of the Mysore Plateau. Except towards the south, the district is hilly, with large plains between the ranges. The chief range, the **Shevaroys**, is near the centre of district (highest point 5,400 feet). The **Kalrayens**, in the east, are inhabited by a hill tribe, known as Malayalis. The **Pachamalais** are in the south-east of the district. The **Jawadis**, in the north-east, stretch into North Arcot.

The **Kaveri**, the principal river, forms the boundary between Salem and Coimbatore. The **Southern Pennar** flows south-eastward into South Arcot.

CLIMATE.—On the north-western plateau the climate is cool and healthy. The plains are hot, and fever is very prevalent around the hills. The rainfall is 36 inches.

PEOPLE.—The population in 1911 was 1,766,680, nearly all Hindus. Muhammadans are about one in 33, and Christians one in 100. **Tamil** is the language of the district; but **Kanarese** is also spoken.

PRODUCTS.—The chief crops are *rice* and *ragi*, the latter the food of the labouring class. *Cumbu*, *pulses*, and *oil-seeds*, *tobacco*, *tea* and *coffee* are also cultivated. The soil is generally red, but there is some black cotton soil. Weaving is carried on in almost every large town or village. Excellent *carpets* are made in Salem jail. Very good *iron* is found in the District.

RAILWAYS.—The South-West Line of the **Madras and Southern Mahratta Railway** runs through the centre of the District from north-east to south-west, and from Jalarpet a branch line goes to Bangalore.

TOWNS.—**Salem**, the chief town, is $3\frac{1}{2}$ miles from its railway station, **Suramangalam**, and about 6 miles from the foot of the Shevaroy's. It is the fifth town in the Presidency in population and is noted for its cloths and cutlery. **Yercaud**, on the Shevaroy's, is a favourite hill station. **Tirupatur** and **Vaniambadi** are towns to the north-east on the Madras and Southern Mahratta Railway. **Krishnagiri**, in the north, has a fort, once of great strength. **Hosur**, in the north-west, has near to it the Remount Depôt, to supply horses for the Madras Army.

8. TRICHINOPOLY DISTRICT

TRICHINOPOLY, to the south-east of Salem, contains an area of 4,935 square miles and is divided into 7 taluks.

SURFACE.—The country is generally flat, broken here and there by rocky hills. The **Pachamalais**, between the Trichinopoly and Salem Districts, are the only mountains. The **Kaveri** crosses the District from west to east. Near the town of Trichinopoly it divides into two branches, forming the island of **Srirangam**. One branch, called the **Coleroon**, has a north-easterly course; the other flows eastward to the sea. The **Vellar** forms part of the boundary between Trichinopoly and South Arcot.

CLIMATE.—Trichinopoly is one of the hottest districts in the Presidency, but healthy. The rainfall averages 35 inches.

PEOPLE.—The population in 1911 was 2,107,029. Christians are about one in 25; Muhammadans one in 30; the rest are Hindus. The general language is **Tamil**, but about one-eighth of the people speak **Telugu**.

PRODUCTS.—**Rice** is grown on the wet lands; *cholam*, *ragi*, *cumbu*, and *varagu* are the chief dry crops. *Gram*, *cotton*, *sugarcane*, *tobacco*, and *indigo*

are also raised. *Cotton cloths, jewellery, and cheroots* are the principal manufactures.

RAILWAY.—The main line of the **South Indian Railway** passes through the District, and there is a branch line from Trichinopoly to Erode.

TOWNS.—**Trichinopoly**, the chief town, is situated on the Kaveri, and has two railway stations. In population it is the third city in the Presidency. It contains a rock, 273 feet high, with a rock temple. It is noted for its cigars and jewellery.

Trichinopoly was at one time the capital of the Naik Kings of Madura. Later it was taken by the Nawab of Arcot. It has been several times besieged.

Srirangam, two miles from Trichinopoly, on an island of the Kaveri, has the celebrated Vishnu temple of Ranganatha. **Tiruvanaikaval** is a Saivite place near it. At **Shendamangalam**, in the west, iron is smelted. **Karur**, in the west on the Amaravati, near its junction with the Kaveri, is a large trading town and was once the capital of the Chola Kingdom.

9. NELLORE DISTRICT

NELLORE, to the north of Chittoor and Chingleput, has an area of 7,973 square miles and is divided into 13 taluks. The Raja of **Venkatagiri** has a large Zemindari in the south.

SURFACE.—The district is a flat strip of country between the Eastern Ghats and the sea, with a few low hills. The Eastern Ghats, here called the **Velikonda Hills**, divide the district from Cuddapah and Kurnul. The principal river is the **Northern Pennar**, which rises in Mysore. The soil is generally poor and stony.

The Eastern Ghats, from 2,000 to 3,000 feet high, are covered with low jungle. **Udaigiri**, the highest peak, is at a little distance from the main range. The **Suvarnamukhi** river, next in size to the Pennar, flows through the south, and the **Gundlakamma**, which rises in Kurnul, passes through the extreme north of the district.

CLIMATE.—The climate is dry and healthy. Rain falls during both the north-east and the south-west monsoons. The annual rainfall is about 36 inches.

PEOPLE.—The population in 1911 was 1,328,152. Most are Hindus. Muhammadans form about one-seventeenth of the population and Christians one-thirtieth. **Telugu** is the language of the district.

The **Yenadis**, a wild tribe, are found chiefly in **Sriharikot**, a sandy tract between Pulicat Lake and the sea. A smaller tribe, the Lambanis, speak a dialect of Marathi.

PRODUCTS.—*Cholam* and *rice* are largely cultivated; *varagu*, *ragi* and *cumbu* are also raised. *Indigo* is extensively grown and manufactured; and a good deal of *cotton* is produced. Nellore supplies most of the *firewood* used in Madras. It is also noted for its excellent breed of *cattle*. *Mica* is found in this district. *Salt* is manufactured on the coast.

COMMUNICATIONS.—The north-east line of the **Madras and Southern Mahratta Railway** traverses the district from north to south. Another line of the same railway passes through the north-west corner. A branch line connects Gudur with Renigunta. The **Buckingham Canal** extends along the coast.

TOWNS.—**Nellore**, on the Pennar, is the headquarters of the district, and the largest town. It is noted for its rice and cotton cloths. **Gudur**, to the south, is a railway junction. At **Venkatagiri**, in the south-west, cotton cloths are woven.

At Nellore an anicut has been thrown across the Pennar, for irrigation purposes.

10. GUNTUR DISTRICT

GUNTUR, to the north of Nellore, contains an area of 5,735 square miles and is divided into 9 taluks.

SURFACE.—The country is generally flat, but there are a few low hills in the western portion of the district. The coast is fringed with great ridges of sand often a mile in width and 30 or 40 feet high. The river Krishna flows between this district and Kistna.

The **Gundlakamma**, a small river, separates this district from Nellore. The country is well watered by natural and artificial channels from the Krishna.

PEOPLE.—The population in 1911 was 1,697,551. About 85 per cent of them are Hindus. Muḥammadans and Christians are each about 7 per cent. The language of the district is **Telugu**.

PRODUCTS.—The land is fertile. *Rice, wheat, cholam* and *cumbu* are the grains cultivated. *Cotton, tobacco, oil-seeds* and *indigo* are raised. Weaving forms one of the chief occupations of the people.

COMMUNICATIONS.—The north-east line of the **Madras and Southern Mahratta Railway** passes through the district northwards. Another line from Guntakal traverses it from south-west to north-east.

TOWNS.—**Guntur**, south of the Krishna, is the chief town. It is a cotton centre and has considerable trade. At **Chirala**, in the south, and at **Motupalle**, in the south-east cotton cloths are woven. **Ongole**, in the extreme south, is noted for its cattle fair.

11. KISTNA DISTRICT

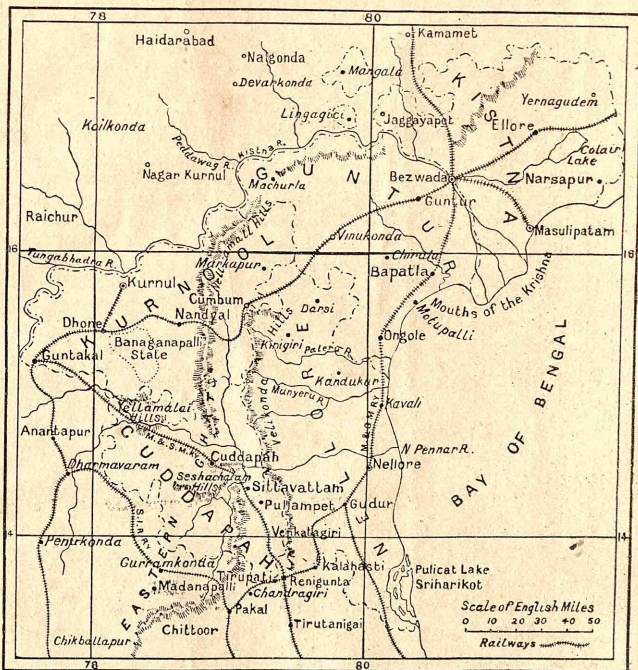
KISTNA, to the north-east of Guntur, has an area of 5,907 square miles and is divided into 13 taluks.

SURFACE.—The country is flat, and is devoid of hills. The coast is similar to that of Guntur, being fringed with great ridges of sand. The river **Krishna** forms the south-western boundary of the district. Near Bezwada an **anicut** has been constructed and the waters of the river are carried in channels to a distance of many miles on each side of it. The **Delta** of the river, which extends from Bezwada to the sea, is traversed by a large number of natural channels. The greater part of the district is thus well watered and fertile.

The **Colair Lake**, in the middle-east, is partly in the Godavari District. It is half lake, half swamp. Its size is much reduced in the dry season. It contains numerous small islands, some of which are inhabited and cultivated.

PEOPLE.—The population in 1911 was 1,997,535, having increased during the preceding ten years more

rapidly than in most of the other districts in the Presidency. Muhammadans are about one in 28; Christians, one in 38; the remainder are Hindus. **Telugu** is everywhere spoken.



NELLORE, CUDDAPAH, ETC.

PRODUCTS.—The district is rich and well cultivated. *Rice* is the chief crop, but *other grains, cotton, indigo, oil-seeds, and tobacco* are raised. *Cotton weaving*, next to agriculture, is the chief industry.

COMMUNICATIONS.—Bez̄wada is now a large railway junction. The north-east line of the **Madras and Southern Mahratta Railway**, which passes through the district, is there joined by another line of the same railway from Guntakal and the **Nizam's State Railway** from Haidarabad. A branch line also runs from Bez̄wada to Masulipatam. There are about 200 miles of navigable canals in the district and a still greater length of navigable rivers.

TOWNS.—**Masulipatam** (Machlipatnam, *Fish Town*), also called **Bandar** (*Port*), is the chief station and the principal seaport. The English had a settlement here in 1622, before Madras was founded. It was formerly noted for its carpets and cotton fabrics. It has more than once suffered greatly from storm-waves.

Bez̄wada is the most important town of the district. It was only a village until the anicut was constructed. This, and later, the construction of the three railways which unite here, have made it a large and important trade centre. **Jaggayapet** is a weaving and trading town on the road from Masulipatam to Haidarabad. **Ellore**, in the centre, near the Colair lake, was once the capital of the Northern Circars, and is noted for its carpet manufactures. **Narsapur**, in the east, was once a seaport, but it is now some distance from the sea, owing to the deposit of mud brought down by the Godavari.

12. CUDDAPAH DISTRICT

CUDDAPAH, to the north of Chittoor, contains an area of 5,982 square miles and is divided into 9 taluks.

SURFACE.—The eastern part of the district is hilly; the north-western and south-western parts are more level and open. The Eastern Ghats form the eastern boundary. The **Palkonda**¹ **Hills**, rising in the south-east near Tirupati, run in a north-west direction through the district. The **Seshachalam Hills** strike off in a westerly direction from the Palkondas.

The **Northern Pennar**, the largest river, flows in a south-east direction through the district. Its principal

¹ *Milk Hills*. So called from their fine pastures.

tributaries are the **Papagni** (*sin-destroyer*) from the south, and the **Chitravati** from Anantapur District.

CLIMATE.—The climate is very hot from March to June. The rainfall is about 28 inches. Many parts of the district are unhealthy, and very feverish.

PEOPLE.—The population in 1911 was 893,998. Most of the people are Hindus, Muhammadans are about one in ten, and Christians one in forty-five. **Telugu** is the language of the district. The **Yenadis** are a wild hill tribe, dreaded by shepherds as sheep-stealers.

PRODUCTS.—The district contains much black cotton soil and *cotton* is largely cultivated. *Millet*s, which form the chief food of the people, are the principal crops. *Rice* is raised on irrigated land. *Indigo*, *sugar-cane*, and *oil-seeds* are other important crops. There are large forest tracts yielding *timber*. *Cotton cloth*, *sugar* and *indigo* are the principal manufactures.

RAILWAYS and CANALS.—The north-west line of the **Madras and Southern Mahratta Railway** runs in a north-west direction through the district. The **Cuddapah-Kurnul Canal** runs from near Cuddapah to the northern frontier; but it is useless in the hot season, and is said to be a cause of much sickness.

TOWNS.—**Cuddapah**, the chief town, on the Madras and Southern Mahratta Railway, 161 miles from Madras, is towards the centre of the district. It is low and hot and has a bad reputation for malaria, which, however, has been reduced by town-improvement. Cotton and indigo are the chief articles of trade. **Sithavattam**, to the south-east, is noted for its melons. **Pullampet**, to the south-east, is a weaving place.

13. KURNUL

KURNUL, to the north of Cuddapah, has an area of 7,580 square miles and is divided into 9 taluks. It contains the feudatory state of Banganapalli in the south.

SURFACE.—Two mountain ranges, the **Nallamalais** (*Black Hills*) and the **Yellamalais** (*Red Hills*), run north and south through the centre of the district, dividing it into three sections. The eastern part, called the **Cumbum Valley**, is separated from Nellore by the Eastern Ghats, here called the **Velikonda Hills**. It contains a large tank, formed by a dam across the Gundlakamma river. The central valley contains the **Kurnul-Cuddapah Canal**. The western section, dotted with rocky hills, slopes to the north, and is drained by the **Hindri**, which falls into the Tungabhadra at Kurnul.

CLIMATE.—The climate in the northern inland districts of Kurnul, Bellary and Anantapur is hot and dry. The rainfall is only about half that of the east coast districts, and droughts are sometimes severe.

PEOPLE.—The population in 1911 was 935,199. About one-seventh are Muhammadans, one-twentieth Christians, and the rest Hindus. Kurnul is the most thinly peopled district in the Presidency, having only 120 to the square mile. **Telugu** is the language of the district. The **Chenchus**, a wild tribe, live on the Nallamalai Hills.

PRODUCTS.—*Cholam* is the chief crop; other *millets*, *pulses*, *cotton*, *tobacco* and *indigo* are also raised. There is little wet cultivation. The forests yield large quantities of valuable *timber*. *Cotton cloths* and *indigo* are the chief manufactures.

COMMUNICATIONS.—The **Madras and Southern Mahratta Railway** passes through the district from east to west and crosses the north-west line at Guntakal just outside the south-west corner of the district. The **Kurnul-Cuddapah Canal**, which passes through the central valley for 140 miles, is used for boats as well as for irrigation.

TOWNS.—**Kurnul**, the chief town, is at the junction of the Hindri and Tungabhadra rivers. Nearly half the population is Musalman, as it was long under Pathan Nawabs. **Nandyal** next in size, near the centre of the district, is a thriving town on the railway noted for its carpets. **Cumbum**, also on the railway, is eastward, near the large tank.

14. GODAVARI DISTRICT

GODAVARI, to the north-east of Kistna has an area of 6,221 square miles and is divided into 13 taluks.

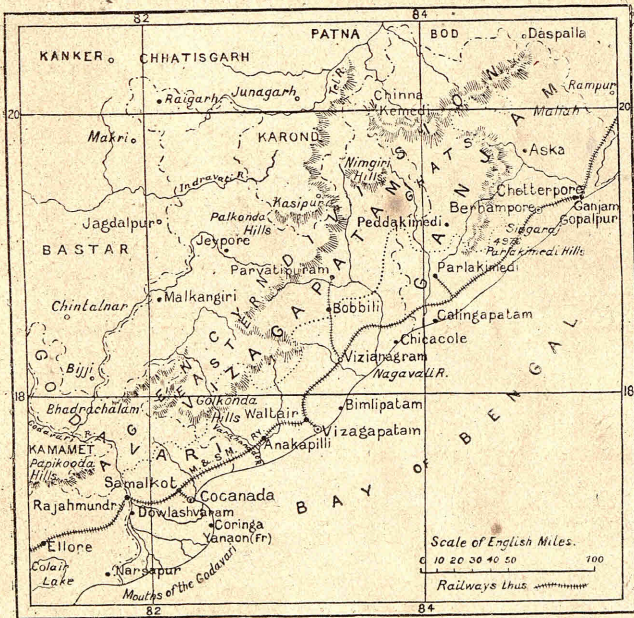
It contains the **Pithapuram Zemindari**; a wild tract, called the **Rampa Hills**; and **Yanaon**, a small French Settlement. The hilly tract in the north is known as the **Godavari Agency**. It includes three-fifths of the area of the district but only one-eighth of the population.

SURFACE.—Towards the north-west the country is hilly, and contains part of the Eastern Ghats called the **Papikonda Hills**. The Godavari, which flows through the district is only 200 yards wide when it bursts through the hills, while lower down it attains a width of 3 miles. At Dowlaishwaram, 30 miles inland, the river separates into two main branches, which enter the sea by seven mouths.

The **Delta of the Godavari**, flat, and in places marshy, is a vast rice field, dotted by villages and groves of palm or mango trees. There are numerous islands, called *lankas*, on which tobacco is cultivated. Cheroots made from tobacco so grown are known as 'lanka cheroots.'

PEOPLE.—The population in 1911 was 1,652,859. The hilly northern part of the district is very thinly peopled, but the Godavari Delta is more densely peopled than any other part of the Presidency north of Madras. Nearly all the people are Hindus, only one in 60 being Muhammadans, and about six in every thousand Christians. **Telugu** is the language of the district.

PRODUCTS.—*Rice* is the chief crop; but *cholam*, *ragi*, and *gram* are largely grown. The district also produces *cotton*, *tobacco*, *sugar-cane*, and *indigo*. *Cotton* and *woollen carpets* are manufactured. Black lead is found at Bhadrachalam in the west.



GODAVARI, GANJAM, ETC.

COMMUNICATIONS.—The north-east line of the **Madras and Southern Mahratta Railway** passes through the district, which is also well supplied with roads. There are over 800 miles of navigable rivers and canals.

TOWNS.—**Cocanada** (*Crow country*), a seaport, is the chief station, and has a large trade. Its chief exports are cotton, grains, tobacco and sugar. It is connected by rail with Samalkot and by canal with several places in the interior. **Coringa**, at one of the mouths of the Godavari, was an early Dutch Settlement and once a large seaport. It is now decayed. The mud brought down by the river has made the harbour so shallow that ships cannot enter it.

Rajahmundry (*Rajamahendri*), on the Godavari, 30 miles inland, is the station of the District Judge, and has a Government College and a Teachers' College. At **Dowlaishwaram**, 4 miles south of Rajahmundry, a great anicut is built across the Godavari, and a vast system of irrigation fertilizes a large portion of the district. At **Samalkot**, in the east, sugar is manufactured.

15. VIZAGAPATAM DISTRICT

VIZAGAPATAM, to the north-east of Godavari, contains an area of 17,221 square miles and is divided into 29 taluks. It is the largest district in the Presidency.

The **Jeypore Zemindari**, in the west, includes more than half the district. **Bobbili** and **Vizianagram** are two large Zemindaris below the Ghats. The **Vizagapatam Agency** takes in the whole of the hilly country in the west and north. It includes almost three-fourths of the district, but only a third of the population.

SURFACE.—The Eastern Ghats divide the district into two unequal portions. The larger inland portion is mountainous; that along the coast is flat, but rising gradually into jungly hills. East of the Ghats the drainage is into the sea; west of the Ghats into the Godavari. The higher peaks of the Ghats are 5,000 feet in height. A part of the range in the north is called the **Palkonda Hills**; another in the south-west, the **Golkonda Hills**. In the extreme north there is a detached mass of hills called the **Nimgiris**. The principal rivers are the **Varahanadi** and the **Sharadnadi**, towards the south, and the **Nagavali**, towards the north. The **Vamsadhara** rises in the hills in the north of the district and runs into the south of Ganjam.

CLIMATE.—The climate is pleasant along the coast; the hills are unhealthy, fever being very common during the rains. The rainfall is about 45 inches a year.

PEOPLE.—Vizagapatam ranks first in the number of its inhabitants as well as in size among the districts of the Presidency. The population in 1911 was 3,189,821. Nearly all are Hindus or Hill Tribes. Muhammadans are only one in 150, and Christians one in 250 of the population.

The Hill Tribes are **Khonds** (*hill men*) **Gonds**, and **Kois**, and number 400,000. **Telugu** is the common language. **Uriya** is spoken in a few parts towards the north-east. The Khonds speak a language of their own. They formerly sacrificed children to the earth-goddess in the hope of getting good crops; but this has been stopped by the British Government.

PRODUCTS.—*Rice* and other *grains*, *sugar-cane*, *oil-seeds* and *indigo* are the principal crops; the forests yield *timber*. *Cotton*, *cloth* and *ornaments of horn*, *porcupine quills*, etc., are the chief manufactures.

RAILWAYS.—The north-east line of the **Madras and Southern Mahratta Railway** joins the **Bengal-Nagpore Railway** at **Waltair**, from which there is a branch line to the town of **Vizagapatam**.

TOWNS.—**Vizagapatam**, the chief town, is a seaport with some trade. It has an Observatory. Cotton cloths and ornamental articles in ivory, horn, silver and sandalwood are the principal manufactures. Europeans live at **Waltair**, a high and cool place, three miles to the north. **Bimilipatam**, to the north-east, is another seaport. At **Anakapalli**, south-west of **Vizagapatam**, on the **Sharadanadi**, sugar is manufactured. **Vizianagram**, 30 miles north of **Vizagapatam**, is a military station, and contains the palace of the Maharaja. The **Vizianagram Zemindari** is larger than the **Chingleput District**, and is well supplied with roads, schools, and hospitals.

Bobbili, in the north, is the chief town in the **Bobbili Zemindari**.

The **Jeypore Zemindari** contains upwards of 9,000 square miles and is larger than any district in the Presidency except **Vizagapatam**. Much of it is wild and thinly peopled. **Jeypore** in the north-east, is the residence of the **Raja**.

16. GANJAM DISTRICT

GANJAM, to the north-east of Vizagapatam, has an area of 8,380 square miles and is divided into 17 taluks.

It contains a large number of Zemindaris, the chief of which is **Parla Kimedi**, in the south. **Goomsur**, in the north, is inhabited chiefly by Khonds. Wild beasts abound in it. The hill districts are known as the **Ganjam Agency**, and comprise two-fifths of the area of the district and a seventh of the population.

SURFACE.—In the centre, the Eastern Ghats, here called the **Maliahs**, approach the sea; the north and south of the district are undulating plains. Some of the peaks of the **Pedda Kimedi** and **Parla Kimedi Hills** are nearly 5,000 feet in height. The highest is called **Singharaja**.

A chain of lakes runs along the coast, separated from the sea by narrow strips of sand. In the extreme north is **Chilka Lake**, the northern half of which is in Orissa.

Chilka Lake is about 40 miles long, and from 5 to 20 broad; but the depth is only from 3 to 5 feet. A narrow channel connects it with the sea. In the dry season the water is salt; in the rains, fresh.

The **Vamsadhara**, the chief river, rises in the north of Vizagapatam, and falls into the sea near Calingapatam.

PEOPLE.—The population in 1911 was 2,221,292. The district ranks fifth in the number of its inhabitants. As in Vizagapatam, nearly all the people of the plains are Hindus, Muhammadans being only one in 400 and Christians one in 500. **Telugu** is spoken in the southern coast districts, and **Uriya** in the north. More than half the people are Uriyas. The **Khonds** and **Savaras** are Hill Tribes numbering over a quarter of a million.

1 The Agency tracts of Ganjam Vizagapatam and Godavari have now been constituted into a separate division and placed under a Commissioner and Agent to the Governor. The division includes six sub-divisions, viz., The Khond, the Savara, the Oriya, the Ghats, the Rampa and the Koya.

PRODUCTS.—*Rice* is the principal crop, but other *grains* are also raised. *Sugar-cane* is cultivated near Aska, where there is a factory for sugar and spirits. *Salt* is made along the coast. Fine *muslin* cloth is manufactured at Chicacole. The forests are rich in valuable timbers, especially *ebony*, *satin-wood*, and *sandal-wood*.

COMMUNICATIONS.—The Bengal-Nagpore Railway passes through the district, which has also some good roads and about 35 miles of canals.

TOWNS.—**Berhampore**, the largest town and the station of the District Judge, is noted for its silk cloths. **Gopalpur**, 9 miles to the east, is the chief sea-port. **Ganjam**, on the coast, was the former capital of the district, but it was abandoned on account of fever. The Collector resides at **Chetterpore**, 5 miles from Ganjam. **Aska**, inland, is noted for its sugar factory. **Calingapatam**, a sea-port at the mouth of the Vamsadhara river, was the ancient capital of the Kalinga kingdom. **Chicacole** (*Srikakulam*), 4 miles from the sea on the Nagavali river, is noted for its fine muslins. **Parla Kimedi**, in the Zemindari of the same name, ranks third in population among the towns of the district.

NORTHERN CIRCARS

Ganjam, Vizagapatam, Godavari, and Kistna were formerly called the **Northern Circars**, or Governments, and the name is still frequently used. In 1765 they were ceded by the Mogul Emperor to the English who had driven out the French.

17. BELLARY DISTRICT

BELLARY, to the west of Kurnul, contains an area of 5,714 square miles and is divided into 9 taluks. The feudatory state of Sandur is in the west of the district.

SURFACE.—Bellary is a great treeless table-land, sloping from west to east. It is broken here and there

by rocky hills, called **droogs**, some of which were formerly occupied by forts. **Ramendroog**, one of the Sandur Hills in the west of the district, is upwards of 3,000 feet in height, and forms a health resort for the residents of Bellary,

The **Hugri**, or **Vedavati**, which rises in Mysore, flows northward through the eastern part of the district into the Tungabhadra.

CLIMATE.—The climate is very dry. Water is scarce; and the district is subject to droughts. The average rainfall is only 20 inches.

PEOPLE.—The population in 1911 was 969,436. The Muhammadans are about one in ten. The Christian population is small, being only slightly over one in 200. The rest are Hindus, with a few Jains. **Kanarese** is spoken in the west; **Kanarese** and **Telugu** in the east.

PRODUCTS.—*Cholam* and other *millet*s are the chief grains. There is little wet cultivation. *Cotton* is largely grown on the black cotton soil; *oil-seeds* and *indigo* are also raised. *Weaving* is carried on to some extent; *woollen blankets* and *carpets* are made in the west. There is a large quantity of excellent *iron* in the district; *manganese*, *lead* and *copper* are also found.

RAILWAYS.—The north-west line of the **Madras and Southern Mahratta Railway** runs northward through the east of the district; another line of the same railway runs westward through the middle, touching the towns of Bellary and Hospet.

TOWNS.—**Bellary**, the headquarters of the district, near the foot of a fortified rock, is a large civil and military station and trading centre. In population it is the largest town in the Deccan districts. **Adoni**, a railway station in the east, is an important centre of cotton trade with manufactures of cloth and carpets. The most conspicuous building here is the **Jama Masjid**, a fine specimen of Muhammadan architecture. Near **Hospet**, in the west, are the ruins of **Vijayanagar**, or **Humpi**, the capital of an ancient Hindu kingdom.

18. ANANTAPUR DISTRICT

ANANTAPUR, to the south-east of Bellary, has an area of 6,718 square miles, and is divided into 9 taluks.

SURFACE.—The northern and central portions form a high table-land more than 2,000 feet above sea level, with here and there rocks and low hill ranges, or droogs. The chief of these are **Penukonda** (3,100 feet) and **Gooty**. Trees are few and water is scarce. The southern taluks are more hilly, and water is plentiful. The **Northern Pennar**, which rises in Mysore, flows through the district, first in a northerly and then in an easterly direction, but it is dry most of the year. The **Chitravati** is its chief tributary. Black cotton soil prevails in the north; red soil in the south.

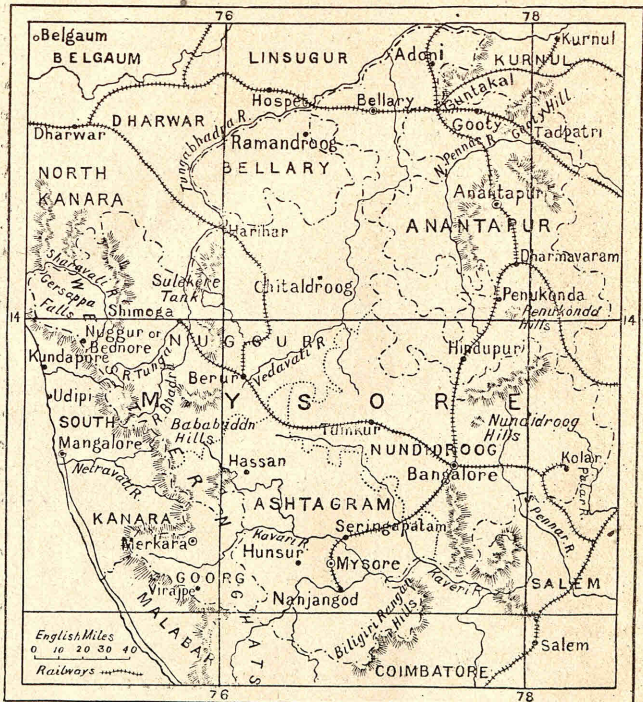
CLIMATE.—Anantapur is hot and dry, and many parts of the district are unhealthy. It has the smallest rainfall of any district in the Presidency, averaging only 17 inches a year.

PEOPLE.—The population in 1911 was 963,223. The majority of the people are Hindus; Muhammadans are one in 12, and Christians slightly over one in 300. There are a few Jains. **Telugu** is the principal language; but **Kanarese** is spoken in the west and south.

PRODUCTS.—*Dry crops, ragi, cumbu, and cholam* form the chief food of the people. *Rice, sugar-cane, oil-seeds and indigo* are grown in the south. *Cotton* is raised in the north. *Cloth, rope, and glass bangles* are the chief manufactures.

RAILWAYS.—The north-west line of the **Madras and Southern Mahratta Railway** runs through the north-east of the district. At Guntakal, in the extreme north, it is crossed by a branch from Bezwada. The **Villupuram-Guntakal** line has its northern terminus at **Guntakal** and runs southward to Dharmavaram and then south-eastward into Cuddapah. A line running almost due south connects Dharmavaram with Bangalore.

TOWNS.—**Anantapur**, towards the centre, on the Villupuram-Guntakal line, is the chief station. **Dharmavaram** is south-east on the same line. **Gooty**, a railway station in the north, has a large hill-fort. **Tadpatri**, eastward on the north-west line, is the largest town in the district and a noted place of pilgrimage.



ANANTAPUR, BELLARY, ETC.

It is situated on the Pennar. **Hindupur** is a trading town in the south. **Penukonda** has an old hill fort, 3,100 feet high, to which the Raja of **Vijayanagar** retired after his great defeat at Talikot (1565 A.D.).

19. SOUTH KANARA DISTRICT

SOUTH KANARA, on the west coast to the south of North Kanara, contains an area of 4,021 square miles and is divided into 7 taluks. The Northern Laccadive Islands are under the collector of South Kanara.

SURFACE.—The district is a strip of country between the Western Ghats and the sea. The Western Ghats, rising from 3,000 to 6,000 feet, form the eastern boundary, and throw out spurs to the low country. As in Malabar, the heavy rainfall gives rise to numerous rivers, which make their way through narrow valleys to the sea. They are all short. The **Netravati** is the principal. The Ghats are crossed by several passes.

CLIMATE.—The rainfall, from the south-west monsoon, is heavy. The coast is healthy; the sides of the Ghats are feverish.

PEOPLE.—The population in 1911 was 1,195,227. Muhammadans are one in 8; Christians about one in 12; the remainder are nearly all Hindus. **Kanarese** is spoken in the north, **Tulu** in the middle, and **Malayalam** in the south.

Kanara (*Kannada*) is properly the country above the Ghats, where the people who speak Kanarese live. Tulu, a language somewhat like Kanarese, is spoken by about half a million.

PRODUCTS.—*Rice* is the chief crop. *Coconut* gardens are numerous along the coast, and *areca* plantations in the interior. *Pulses*, *pepper* and *cardamoms* are grown to a small extent; the forests yield much valuable *timber*. *Weaving* is also carried on. *Coffee*, *rice*, *betel-nuts*, etc., are exported.

COMMUNICATIONS.—The **South Indian Railway** runs up the west coast only as far as Mangalore. But the district has good roads up the passes into Mysore and Coorg. There are backwaters on the coast, with communication by sea, except during the height of the monsoon.

TOWNS.—**Mangalore**, the chief town, is a large seaport which exports coffee. The tiles made here are excellent. It is well supplied with schools and colleges. It was frequently taken and re-taken during the Mysore Wars.

Udupi, northward, is noted for its Hindu temples. **Kundapore** is further north. **Kasaragod**, on the coast, was the most southerly port of the ancient Tuluva kingdom.

20. COIMBATORE DISTRICT

COIMBATORE, to the west of Salem, has an area of 7,196 square miles and is divided into 10 taluks.

SURFACE.—The northern portion of the district consists of a table-land from 2,000 to 2,500 feet in height, divided from Mysore by the **Biligiri-Rangan Hills** and other ranges. Two passes lead from this table-land to the low country, which, with slight undulations, slopes gently from Coimbatore in the west to the east. The **Nilgiri Hills** are on the north-western boundary; the **Anamalais** on the south-western. The **Kaveri**, on the north and east, divides the district from Salem. It has three tributaries from the Coimbatore District, the **Bhavani**, the **Noyil**, and the **Amravati**. About 3,000 square miles are covered with forests, and in the north there is much waste pasture land, to which cattle are driven from the Salem District.

Wild animals of almost every species native in South India are found in the forests—the elephant, tiger, bison, bear, hyæna, wolf, etc. The **Biligiri-Rangan Hills** are a double range enclosing a high valley where elephants abound.

CLIMATE.—When the south-west monsoon sets in, cool winds, without rain, blow through the Palghat Gap. The climate is healthy, except at the foot of the hills, where it is very feverish. The rainfall varies in different taluks from 20 to 38 inches.

PEOPLE.—The population in 1911 was 2,116,564. Nearly all are Hindus. Muhammadans are only one in 50, and Christians one in 110. **Kanarese** is spoken in the north; elsewhere **Tamil**. Wild tribes are found on the mountains.

PRODUCTS.—*Cumbu* and *cholam* are the chief crops; *cotton*, *ragi* and the *pulses* are next in importance. Not much rice is grown. *Oil-seeds*, *tobacco*, *hemp* and *sugar-cane* are also raised. Silk and cotton cloths are the chief manufactures; *cotton* is the chief export.

RAILWAYS.—The **South Indian Railway** passes through the middle of the district with two branch lines, one northward to **Mettupalayam** at the foot of the **Nilgiri Hills** and the other southward to **Pollachi**. From **Erode** another branch line skirts the **Kaveri** to **Trichinopoly**.

TOWNS.—**Coimbatore**, the chief town, is a healthy station, three miles from **Pōdanur**, on the branch line to **Mettupalayam**. It has a College of Agriculture and a Forest School. Weaving is a chief occupation here. **Erode** (*Irode*), on the **Kaveri**, near the eastern frontier, is an important railway junction. **Bhavani** nine miles north of **Erode**, is at the junction of the **Bhavani** with the **Kaveri**. **Pollachi**, a railway station in the south-west of the district, has a large weekly fair. At **Kollegal**, in the north, silk cloths are made.

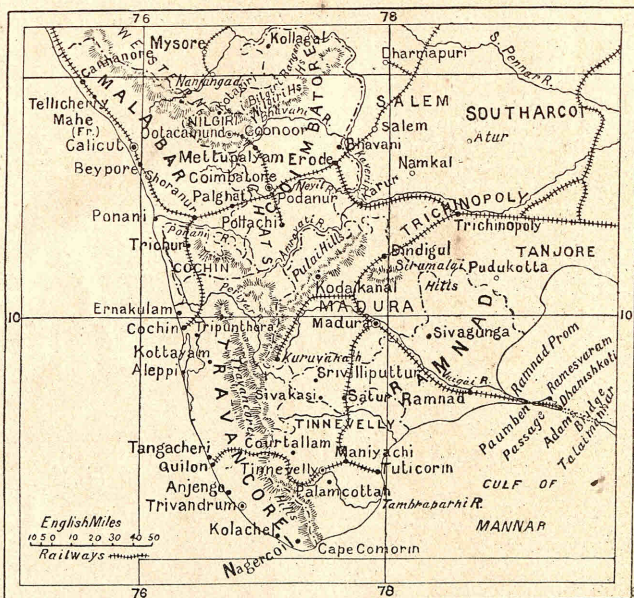
21. NILGIRIS (BLUE MOUNTAINS).

NILGIRIS, the smallest district in the Presidency except **Madras**, is situated to the west of **Coimbatore** and has an area of 1,009 square miles. It is divided into 3 taluks.

SURFACE.—The district consists mainly of a small table-land on the summit of the **Nilgiri Hills**, about 6,000 feet in height. On all sides the descent to the plains is sudden, through six well-known passes, the chief of which is the **Coonoor Ghat**. **Dodabetta** (*Big Mountain*), the highest peak, is 8,760 feet. The table-land consists chiefly of grass lands, studded with *sholas*

or small woods. At **Ootacamund** there is a lake about 2 miles long. The **Kundas** form the western wall of the Nilgiri table-land, rising abruptly from Malabar. **Avalanche Peak**, the highest point, is 8,502 feet.

The Nilgiris are separated from the **Wynad** and **Mysore** table-lands by a broad valley through which



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the **Moyar** flows. The **Paikara** is a tributary of the Moyar, which itself is a tributary of the Bhavani. The **Beyepore** flows westward.

CLIMATE.—The climate is cool and bracing; rain falls during both monsoons.

PEOPLE.—The population in 1911 was 118,618. Christians are one in 7; Muhammadans one in 24; the rest are Hindus. The chief hill tribes are the **Badagas**, **Todas**, and **Kotas**.

The **Badagas** (*north-men*) are the most numerous and civilized of the tribes. They are supposed to have come from the Kanarese country, as they speak a dialect of Kanarese. The **Todas** have herds of buffaloes, and are chiefly engaged in making butter and ghee. Their language is a corrupt form of Tamil. The **Kotas** (properly Gauhatars, from *gau*, a cow, and *hata*, slaying, cow killers) cultivate the ground and serve the Badagas and Todas. They speak a corrupt kind of Kanarese. The **Kurumbars**, or shepherds, are the most uncivilized of all the tribes. They are small in stature, and wear scarcely any clothing, but are fond of ornaments. They are priests to the Badagas, by whom they are feared. The **Irulas** (from *irul*, darkness) live at the foot of the hills and are clever huntsmen. They are few in number, and speak a mixed language.

PRODUCTS.—*Coffee*, *tea*, and *cinchona*, cultivated chiefly by European planters, are the most important products. *Potatoes* are grown largely; a little *rice*, *wheat*, and *ragi* are also raised.

RAILWAY.—The Nilgiri Railway runs from Mettupalayam up the Ghats to Ootacamund, a distance of 30 miles.

TOWNS.—**Ootacamund** (*Ontikalmanda*, one stone village) is the chief sanitorium in the Presidency and the headquarters of the Madras Government during the hot season. It is 7,228 feet above the sea. In the valley between the surrounding hills, an extensive lake has been formed by damming a stream. The station is overgrown with Australian blue-gums (*Eucalyptus*). **Coonoor** is a sanitorium, 6,000 feet high, 12 miles from Ootacamund. It has a Pasteur Institute. **Wellington** is a military station near Coonoor, garrisoned by British infantry. **Kotagiri** is a smaller station, 6,500 feet high, south-east of Ootacamund.

22. MADURA DISTRICT

MADURA, to the south-east of Coimbatore, contains an area of 4,916 square miles and is divided into 8 taluks.

SURFACE.—The greater part of the district is a plain, sloping gently towards the south-east. In the west there are outlying ranges of the Ghats, and there are a few separate hills and rocks scattered over the country. The **Palni Hills** are the highest range, some of the peaks being more than 8,000 feet above sea level. The **Sirumalais** (*Little Mountains*) are a range about half the height of the Palnis, between Madura and Dindigul. The chief river is the **Vaigai**, which rises in the Western Ghats and flows through the middle of the district. Part of the water of the **Periyar River** in Travancore has been diverted into this district by means of a dam closing the valley of the Periyar and a tunnel drilled and blasted through the Western Ghats. This project is known as the Periyar Project.

CLIMATE.—The climate is hot and dry. The rainfall is about 31 inches a year.

PEOPLE.—The population in 1911 was 1,932,832. Nine out of ten are Hindus; Muhammadans are one in 25; Christians one in 32. **Tamil** is the language of the district, but about one-seventh of the people speak **Telugu**.

PRODUCTS.—The chief crops are *rice* and different kinds of *millet*; *pulses*, *oil-seeds*, and *tobacco* are also raised. *Cloth*, and *earthen* and *brass vessels* are the principal manufactures. *Cigars* are made at Dindigul, where there is also a considerable production of *iron* from an excellent ore found in many parts.

RAILWAYS.—The **South Indian Railway** enters the district from the north-east and leaves it in a south-easterly direction. At Madura, the Tuticorin line branches off to the south.

TOWNS.—**Madura**, the chief town, is situated on the Railway, in the south-east of the district. It is noted for its buildings, and in population is the second city in the Presidency. Madura is a very ancient city. It was the capital of the Pandyan Kingdom and famous for its Hindu College. The great Siva temple of Minakshi and the palace of Tirumal Naik are the principal buildings. Brass vessels, ornamental articles of gold

and silver and fine cotton and silk cloths are manufactured here.

Dindigul, on the railway, north-west of Madura, has an old fort on a rock. It is now noted for its cheroots and brass vessels. **Kodaikanal**, a hill-station on the Palnis 7,000 feet above the sea, is resorted to by Europeans and Indians alike during hot weather. It has an Observatory.

23. RAMNAD DISTRICT

RAMNAD, to the south-east of Madura, has an area of 4,834 square miles and is divided into 9 taluks.

SURFACE.—The western part of the district is hilly and that along the coast sandy. The **Vaigai** flows in a south-easterly direction to the sea.

Rameswaram is a small island in the east, separated from the main-land by the Pamban Passage. It is a famous place of pilgrimage. A viaduct has been constructed by the South Indian Railway Company across the Pamban Pass with an opening for vessels by means of a Scherzer lifting bridge. The sea to the north of the passage is called the **Palk Strait**; that to the south, the **Gulf of Mannar**. A sand bank called **Adam's Bridge** by Europeans and **Rama's Bridge** by Hindus, connects Rameswaram with Mannar, an island belonging to Ceylon.

PEOPLE.—The population in 1911 was 1,658,453—a little more than that of Godavari. More than nine-tenths are Hindus; Muhammadans are one in 14; Christians one in 22. **Tamil** is spoken by the majority of the people.

PRODUCTS.—*Cumbu*, *varagu* and *cholam* are the chief crops raised. *Ground nuts* and *pulses* are grown in certain parts. *Cotton*, *tobacco* and *tea* are the other products. *Coconut* and *palmyra trees* are abundant.

RAILWAYS.—The **South Indian Railway** traverses the district in a south-easterly direction terminating at Dhanushkodi, which is connected by steamer service to Talaimannar on the **Ceylon Government Railway**. The **Madura-Tuticorin branch** crosses the western part of the district from north to south.

TOWNS.—**Ramnad**, the chief town, is in the south-east, on a low sandy promontory stretching out towards Rameswaram. It contains the palace of the Raja of Ramnad. **Sivaganga**, the chief station of the Zemindari of the same name, is north-west of Ramnad. **Srivilliputtur**, in the west, has a noted Vaishnavite temple. **Sivakasi**, to the south-east, is a centre of tobacco and cotton trade. **Satur** is a railway station to the west of Sivakasi.

The **Ramnad Zemindari** is nearly as large as Chingleput, but has a population of only about half a million.

24. TINNEVELLY DISTRICT

TINNEVELLY, to the south-west of Ramnad, contains an area of 4,353 square miles and is divided into 8 taluks.

SURFACE.—The Ghats, forming the western boundary and separating the district from Travancore, rise to the height of 4,000 feet. From their base a large plain slopes eastward to the sea. The chief rivers are the **Vaipar**, in the north, and the **Tambraparni**, in the south. Black cotton soil prevails in the north; a red or sandy soil in the south.

The Tambraparni forms beautiful waterfalls at **Courtallam** (*Kuttalam*) and **Papanasam**.

CLIMATE.—The rainfall is heavy on the Ghats, but on the plains it averages only about 26 inches. The district is not so hot as any of the districts immediately north of it, and it is much healthier.

PEOPLE.—The population in 1911 was 1,790,619. Christians are one in 10; Muhammadans one in 17; the remainder are Hindus. **Tamil** is chiefly spoken, but a small portion of the people speak **Telugu**.

PRODUCTS.—*Rice*, the chief crop, is raised in the river valleys. *Cotton* is largely grown, Tinnevelly being one of the four chief cotton districts of the Presidency. *Millet*s, *pulses*, and *oil-seeds* are other important crops. Large quantities of *coarse sugar* are made from the palmyra palm. *Pearls* and *chanks* are obtained on the coast. *Black lead* is also found.

RAILWAYS.—The **Madura-Tuticorin** branch of the **South Indian Railway** runs through the district. From Maniyachi there is another branch line to Tinnevelly, and across the Peninsula to Quilon in Travancore.

TOWNS.—**Tinnevelly** (*Tirunelveli*) on the Tambraparni, is the largest town in the district. **Palamcottah** (*Palayamkottai*), the chief station, is on the opposite bank of the river about two miles from Tinnevelly. **Tuticorin** (*Tuttukudi*) is the chief seaport and the terminus of the southern branch of the South Indian Railway. It is famous for its pearl and conch fisheries and is an important centre of the cotton industry. In the amount of trade it is the second sea-port in the Presidency.

Courtallam, on account of its waterfalls and healthy climate, is much frequented.

THE KARNATIC

The East Coast Districts from Nellore southwards with North Arcot and Trichinopoly, were formerly improperly called the KARNATIC. KARNATA denotes the Kanarese country, above the Ghats, where Kanarese is spoken. The coast from Point Calimere to Nellore is sometimes called the COROMANDEL COAST, from Cholamandalam, the country of the Cholas.

25. MALABAR DISTRICT

MALABAR, on the west coast to the west of Coimbatore and Nilgiris, has an area of 5,794 square miles and is divided into 11 taluks. **Mahe**, a small French Settlement, is included in the district, and the *Southern Laccadive Islands* are under the Collector of Malabar.

SURFACE.—The District includes part of the Western Ghats, from 3,000 to 5,000 feet in height, and the strip of country between them and the sea. Short ranges from the Ghats run down towards the coast. Numerous rivers have hollowed out for themselves long valleys to the coast, where, meeting sea currents, they empty themselves into a line of backwaters. The **Ponani**, the principal river, is in the south.

There is a remarkable break in the Western Ghats, 25 miles wide, in the south of the District, called the **Palghat Gap**. The Nilgiris tower to the height of 8,000 feet on the north and the Anamalais are still higher on the south. Through the Gap the western winds bring cool air and pleasant showers to Coimbatore.

CLIMATE.—The climate is damp. The rainfall from the south-west monsoon, averages 120 inches on the coast, and from 150 to 200 inches on the Ghats.

PEOPLE.—The population in 1911 was 3,015,119. The district ranks second in the number of its inhabitants. About seven out of 10 are Hindus; Muhammadans are one in 3; Christians one in 57. **Malayalam** is the language of the district; but **Tamil** is spoken by some settlers in the Palghat Taluk.

The Brahmans are known as **Namburis**. The eldest son alone marries and inherits. The girls may remain unmarried to any age or even die unmarried. The Vellalar high caste Sudras are called **Nairs**. Their marriage customs are very lax. Inheritance goes through the female, not the male line; a man's heirs are not his own children, but those of his sister. The Muhammadans are nearly all **Mapillas** or **Moplas**, converts from various castes.

PRODUCTS.—*Rice* forms the staple crop; *coconuts* are next in importance. *Pepper*, *cardamoms*, *ginger* and *oil seeds* are also raised; *coffee* is grown on the hills; the forests yield *teak*. Weaving and tile-making, formerly carried on by the German Missions, are among the noted industries.

COMMUNICATIONS.—The **South Indian Railway** enters the district at the Palghat Gap, and runs to Beypore and then northwards along the coast into South Kanara touching Calicut, Tellicherry and Cannanore. There are good roads and many miles of navigable river. Through backwaters and canals, there is communication along the coast.

TOWNS.—**Calicut**, the head-quarters, is the largest town in Malabar, and the fourth in the Presidency. It is an important seaport, and was formerly the capital of the Zamorin, whose descendants still reside here. Vasco da Gama landed at Calicut in 1498. It has a fisheries training school. Good tiles are manufactured here. The cotton cloth called calico gets its name from this town, which first imported it.

Beypore is a small port six miles south of Calicut. **Tellicherry**, about forty miles north of Calicut, is a large seaport from which pepper, coffee, and cardamoms are exported. **Cannanore**, also a seaport twelve miles north of Tellicherry, was formerly the chief military station in Malabar. **Mauantoddy**, above the Ghats in the Wynad Taluk, is in the middle of the coffee district. **Palghat** is a large inland town in the Palghat Gap, noted for its brass vessels. **Ponani** is a thriving seaport at the mouth of the Ponani river. **Cochin** (British), a seaport in the extreme south of Malabar, is surrounded by the Native State of Cochin.

Cochin is noted for its settlement of Jews. Here the first European fort in India was built by the Portuguese in 1503. The place afterwards fell into the possession of the Dutch. It was acquired by the English in 1814.

26. ANJENGO

ANJENGO, which is now counted as a district, includes the two small isolated British settlements of **Anjengo** and **Tangacheri** on the Travancore coast. It is only one square mile in extent with a population of about 5,600. The British Resident of Travancore and Cochin is the Collector of this territory.

FEUDATORY STATES IN THE MADRAS
PRESIDENCY

PUDUKOTTA

PUDUKOTTA (*The Tondaman's country*) is a small Native State with an area of 1,178 square miles, entirely surrounded by the British Districts of Tanjore, Trichinopoly, Ramnad and Madura. The population in 1911 was 411,886. **Tamil** is the language spoken. The country, for the most part, is flat. *Rice* and *dry grains* are the chief products. The family name Tondaman comes from a Tamil word, meaning ruler. The chief town, **Pudukotta**, has a college maintained by the Raja.

BANGANAPALLI

BANGANAPALLI is a small feudatory state situated in the south of Kurnul District. Its area is 255 square miles and the population in 1911 was 39,344. **Telugu** is the prevailing language. According to a record, the Nizam of Haidarabad appointed in 1761 a certain Muhammadan as commandant and magistrate of Banganapalli. When the Nizam handed over the Ceded Districts including Kurnul to the British in 1800, the control was transferred to the British Government. In 1871, the Muhammadan head of the state received the hereditary title of Nawab.

SANDUR

The feudatory state of Sandur, 161 square miles in area, is bounded by Bellary District and a corner of Mysore. The population in 1911 was 13,526. **Telugu**

is the language spoken. The sanatorium of Ramandrug is situated on a plateau 3,256 feet above the sea.

The state was originally feudatory to the Mahrattas and was handed over to an ancestor of the present Mahratta Raja by a sanad or deed of grant.

COMPARISON OF DISTRICTS

SIZE.—Vizagapatam, including the Agency Tract, is the largest district; Ganjam, Nellore, Kurnul and Coimbatore are next in size. The smallest districts are Anjengo, Madras, the Nilgris and Chingleput.

RAINFALL.—South Canara and Malabar have the greatest rainfall; Anantapur and Bellary the least.

PRODUCTS

MINERAL.—Malabar and Salem produce most *iron*; *gold* is found in Wynad and Anantapur; there are a few small *diamond mines* in Kurnul.

VEGETABLE.—The principal *rice* districts are Tanjore, Vizagapatam, Kistna, Ganjam and Malabar; *cholam*, Bellary, Kurnul, Coimbatore, Guntur and Madura; *cumbu*, Coimbatore, Salem, Cuddapah, Guntur, and South Arcot; *ragi*, Salem, Vizagapatam, Ganjam, Kurnul, and Coimbatore; *gram*, Coimbatore and Bellary; *tobacco*, Guntur, Coimbatore, Vizagapatam, Godavari and Madura; *cotton*, Tinnevelly, Bellary, Ramnad, Guntur and Coimbatore; *indigo*, Cuddapah, South Arcot, Guntur, North Arcot and Chingleput.

INHABITANTS

Vizagapatam, Malabar, Tanjore, South Arcot, Ganjam, Coimbatore and Trichinopoly have the largest population, each having more than two million inhabitants;

Anjengo, the Nilgiris, Madras and Cuddapah the smallest.

Exclusive of Anjengo and Madras, Tanjore, Malabar, South Arcot and Godavary are the most thickly peopled districts; the Nilgiris, Kurnul, Cuddapah, Anantapur, Nellore and Bellary are the most thinly peopled.

POPULATION OF TOWNS

In 1911, Madras had 518,000 inhabitants; Madura, 134,000; Trichinopoly, 123,000; Calicut, 78,000; Kumbakonam, 64,000; Tanjore and Negapatam, 60,000; Salem, 59,000; Cuddalore, 56,000; Cocanada, 54,000; Conjeevaram, 53,000; Vellore, 49,000; Rajahmundry and Mangalore, 48,000; Coimbatore, 47,000; next in size are Palamcottah, Tinnevely, Palghat, Vizagapatam, Masulipatam, Guntur and Tuticorin, all of which have over 40,000 inhabitants.

PROTECTED STATES UNDER THE GOVERNMENT OF MADRAS

TRAVANCORE

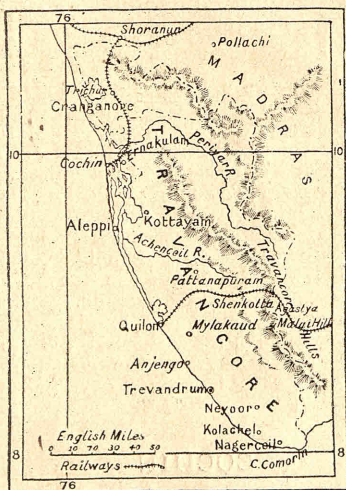
TRAVANCORE (*Tiruwanghur*) forms the south-western extremity of India. It is bounded on the north by Cochin and Coimbatore, on the east by Madura, Ramnad and Tinnevely, and on the south and west by the Indian Ocean. Its area 7,129 square miles, about the size of the Coimbatore District.

SURFACE.—In the east the Ghats in some places rise to the height of 8,000 feet. They include the **Anamalais** in the north and the **Cardamom Hills** in the south. The most remarkable peak in the south is **Agastya Malai** (6,200 feet), the source of the

Tambraparni river. The plain along the sea is covered with rice-fields, coco-nut and areca-nut palms. Numerous rivers run down from the Ghats to the sea. The principal is the **Periyar**, navigable for 60 miles. It enters the sea at Cranganore.

CLIMATE.—The climate is hot and moist on the coast; cool on the hills. The rainfall is abundant.

PEOPLE.—The population is about 3,430,000. About one in 5 are Christians; one in 17 Muhammadans, and the rest are Hindus.



TRAVANCORE AND COCHIN

The Christians number over half a million; they are more numerous than in any other part of India. More than half are **Syrian Christians**, who have lived in the country since very early times. The Muhammadans are **Mapillas**. The Brahmans are **Namburis**. The other leading caste are the **Nairs** as in Malabar. Tamil is spoken to the south of Trevandrum, and **Malayalam** to the north.

GOVERNMENT.—Travancore is governed by a Maharaja, tributary to the British Government. There is a British Resident, and a small military force, called the Nair Brigade.

The tradition is that the whole Malayalam coast was reclaimed from the sea by Parasurama, and colonized by Namburi Brahmans. The greatest of the rulers was Cherman Perumal (Deputy of the Chera Kings) who divided his dominions among his vassals.

PRODUCTS.—Rice and the *coco-nut* palm are the chief products. *Pepper* and the *areca-nut* come next. *Cardamoms* grow wild on the hills; *coffee* and *tea* are cultivated. The forests contain elephants and yield valuable *timber*.

COMMUNICATIONS.—An extension of the **South Indian Railway** from Tinnevely to Quilon has recently been opened for traffic. A succession of backwaters, connected by canals, extends along the coast, forming an important means of communication. Good roads have also been constructed.

TOWNS.—**Trevandram** (*Tiruvanantapuram*), the capital, is on the coast, and has a large arts college and a law college maintained by the Maharaja. **Tiruvankodu**, the ancient capital, is now only a village. **Quilon** (*Kollam*), an ancient seaport, connected with the east coast by a branch of the South Indian Railway, is the head-quarters of the Nair Brigade. **Alleppi** (*Allapalli*), in the north, is the second town in size, and the principal seaport. **Kottayam**, north-east of Alleppi, is the centre of the Syrian Christians. **Nagercoil**, in the south is an important Mission Station. **Colachel** is a small port, near Cape Comorin.

COCHIN

COCHIN (*Kochchi*) is bounded on the west, north, and north-east by Malabar, on the south-east by Coimbatore, and on the south by Travancore. A narrow strip of Malabar divides it from the sea. The area is 1,362 square miles.

SURFACE.—Cochin includes the western slopes of the Ghats and the tract of country lying between

them and the coast. Numerous streams flow from the hills to the backwaters, which branch out into lakes and narrow channels.

CLIMATE.—The climate is damp but healthy, and the rainfall is abundant.

PEOPLE.—The population is about 918,000. Out of every hundred about 22 are Christians. The proportion of Christians is higher than in any other part of India. Most are Syrian Christians; they include nearly all the boatmen and fishermen. Muhammadans are one in 20. With the exception of a few Jews, the remainder are Hindus. **Malayalam** is the language of the country, but **Tamil** is also spoken.

PRODUCTS.—*Rice*, is the staple crop. Next to rice is the *coconut* whose products—*coir*, *oil*, *coprah*, (dry nuts), and the nuts, form the chief exports. Other crops are *milletts*, *pulses*, *coffee*, *indigo*, *betel-leaf* and *areca-nut*, *cardamoms*, *ginger*, and *pepper*. The forests yield *teak* and other timber.

COMMUNICATIONS.—There is water communication by backwaters and canals, throughout most of the State. From Shoranur on the South Indian Railway a branch runs to Cochin.

GOVERNMENT.—The State is under a Raja. The British Resident of Travancore is also the Resident of Cochin.

TOWNS.—**Ernakulam**, the capital, is two miles east of Cochin. It has a college and high school. **Tripunthora**, where the Raja resides, is about six miles east of Ernakulam. **Cochin**, the old capital, is near British Cochin. **Trichur**, the largest town in the north, has much trade with Cochin and Palghat.

MYSORE

MYSORE is a large protected State, occupying the southern portion of the Deccan table-land, from 2,000 to 3,000 feet in height. It is bounded on the north by the Bombay Presidency and Bellary, on the east by

Anantapur, Chittoor and North Arcot; on the south by Salem, Coimbatore, and the Nilgiris; on the west by Malabar, Coorg, and South Kanara. The area is 29,400 square miles—rather larger than that of Ceylon.

The name is said to be derived from Mahesh-asura, the buffalo-headed demon, supposed to have been killed by Devi,

SURFACE.—Mysore is divided into the **Malnad**, or hill country, in the west, bordering on the Western Ghats, and the **Maidan**, or plain, occupying the greater portion of the State. Scattered over the country are a number of small rocky hills, called *droogs*, formerly crowned with forts. **Nundidroog** (4,810 feet), **Savandroog**, and **Chitaldroog** are the most important.

The highest peak of the Western Ghats is **Kudura-mukha** (*horse-face*), 6,215 feet in height. The **Bababudan** or **Chandradrona** range, a spur from the Western Ghats, is in the form of a horseshoe. **Mulaina Giri**, the highest peak, is 6,317 feet high. The **Biligiri-Rangan Hills** are the highest point of the Eastern Ghats.

The northern parts are drained by the **Tunga**, **Bhadra**, and **Hugri**, tributaries of the Krishna. The **Northern** and **Southern Pennar** and the **Palar** all rise in Mysore. The southern districts are watered by the **Kaveri** and the streams which flow into it. The **Sharavati**, a small river, has a westerly course, and forms the grand **Gersoppa** waterfalls, about 1,000 feet in height.

Mysore abounds with tanks. **Sulekere**, the largest, is 40 miles in circuit.

CLIMATE.—The hill country has a good supply of rain; the plains sometimes suffer from drought. Owing to the height, the air is cooler than on the eastern coast.

POPULATION.—The population in 1911 was about 5,807,000. The great bulk of the people are Hindus. Nearly half a million are Lingayats; Muhammadans number over 240,000; and there are some Jains. The



MYSORE, GOORG, ETC.

Christians number about 35,000. The farmers, known as Wokligas, form the most numerous class. There are several wild tribes. **Kanarese** is the language of the country; but the Muhammadans speak **Hindustani**, and in some eastern districts **Telugu** is used.

GOVERNMENT.—Mysore is governed by a Maharaja, under the Viceroy, who is represented by a Resident. Education receives great encouragement.

HISTORY.—The early history of Mysore is obscure. It was fabled to be the kingdom of Sugriva, whose general, Hanuman, aided Rama. There have been several lines of kings. Last century, under Hyder Ali and Tippu Sultan, it acquired considerable power. In 1831, in consequence of misgovernment, it was placed for a time under British rule, and great improvements were made. In 1881 the late Maharaja, on attaining his majority, was placed on the throne.

PRODUCTS.—Black cotton soil is found in the north; in the east it is red; in some parts it is stony. *Ragi* is the principal crop, and is the common food of the people. Other *grains*, and *oil-seeds* are also cultivated. *Cotton* is raised on the black soil in the north. *Coffee* and the *areca-nut* are largely grown in the Malnad, and the forests abound in elephants and yield *sandalwood*, which is a Government monopoly. There are productive and valuable *gold mines* in the Kolar District; *iron* is also worked. *Carpets* and *coarse blankets* are the chief manufactures.

COMMUNICATIONS.—Mysore is well supplied with roads, and is gradually being opened up by railways. A line of the **Madras and Southern Mahratta Railway** runs to Bangalore and thence extends south-west to Mysore, and north-west towards Bombay. Another line runs north from Bangalore to **Dharmavaram** in Anantapur.

DIVISIONS.—Mysore is divided into **Nundidroog** in the east; **Ashtagram**, in the south; and **Nuggur** in the north, which are subdivided into districts.

TOWNS.—**Bangalore**, towards the east is the residence of the Maharaja for part of the year, and the headquarters of the British Resident. It is a large civil and military station, noted for its fine climate; colleges, and gardens.

Bangalore is 3,100 feet above the sea. The population is about 188,000. It is the second city for population in South India.

Mysore, in the south, is the ancient capital, and the usual residence of the Maharaja. It is connected with Bangalore by rail, and has large schools. **Seringapatam**, on an island of the **Kaveri**, 10 miles from Mysore, was the capital under Hyder Ali and Tippu Sultan.

Tippu was killed at the taking of Seringapatam in 1799. The place is now almost deserted, on account of its unhealthiness.

KOLAR, the birthplace of Hyder Ali, lies east of Bangalore, on the railway to Jalarpet. The gold mines are in the neighbourhood. **Chitaldroog**, in the north, is an ancient town, at the foot of a rock. **Hassan** is a small town, west of Bangalore. **Shimoga** is in the north-west, on the Tunga river.

PROVINCE OF COORG

Coorg (*Kodagu*, 'steep mountains') is a small British Province to the south-west of Mysore, and bounded on the west and south by South Kanara, and Malabar. The area is nearly 1,600 square miles.

SURFACE.—Coorg includes the eastern slope of the Western Ghats, and is very mountainous. Numerous short ranges run eastward. Many of the hills are covered with coffee gardens, and rice is cultivated in terraces on the hill sides. The chief river is the **Kaveri**, which rises in Coorg. The climate is moist, the annual rainfall being, about 120 inches.

PEOPLE.—The population is over 181,000, mostly Hindus. The **Coorgs**, nearly 30,000 in number, are a fine manly race speaking a dialect of their own. The language of the Province is **Kanarese**. During the coffee season, many coolies come up from the neighbouring districts.

Coffee and cardamoms are the chief exports.

Coorg is under the Government of India, and is administered by the Resident of Mysore, who is also **Chief Commissioner of Coorg.**

TOWNS.—**Merkara** is the chief town and residence of European officials.

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