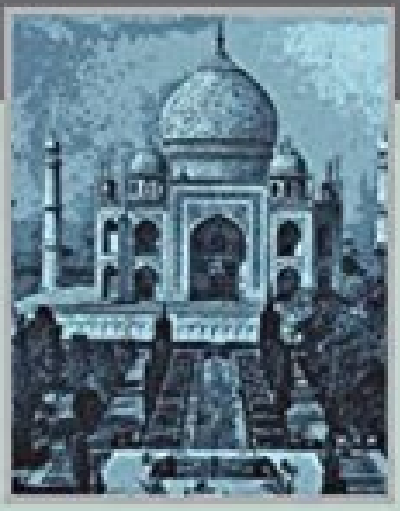
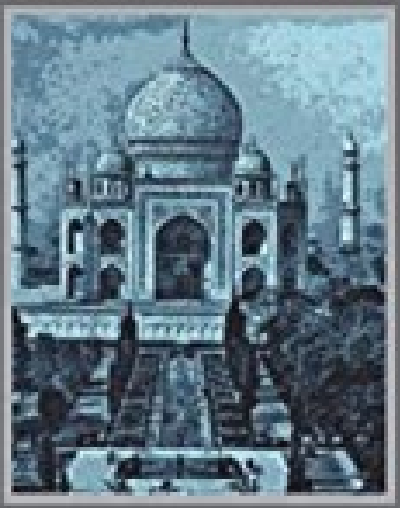
FROM POLE TO POLE A BOOK FOR YOUNG PEOPLE







Sven Anders Hedin

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FROM

POLE TO POLE

A BOOK FOR YOUNG PEOPLE

BY

SVEN HEDIN



DR. SVEN HEDIN IN TIBETAN DRESS.

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English-speaking young people.

CONTENTS

PART I

I. Across Europe—	PAGE
BERLIN TO CONSTANTINOPLE	8
CONSTANTINOPLE	13
THE CHURCH OF THE DIVINE WISDOM	15
THE BAZAARS OF STAMBUL	20

II. Constantinople to Teheran(1905)—
THE BLACK SEA 26
TREBIZOND TO TEHERAN 29

III. Through the Caucasus, Persia, and Mesopotamia(1885-6)—
ST. PETERSBURG TO BAKU 34
ACROSS PERSIA 37
ARABIA 40
BAGHDAD TO TEHERAN 42

IV. The Persian Desert(1906)—
ACROSS THE KEVIR 46
THE OASIS OF TEBBES 51

V. On the Kirghiz Steppe(1893-5)—
INTO ASIA FROM ORENBURG 55
SAMARCAND AND BUKHARA 59
THE PAMIR 62
"THE FATHER OF ICE-MOUNTAINS 66
A KIRGHIZ GYMKHANA 69

VI. From Persia to India (1906)—
TEBBES TO SEISTAN 72

A Baluchi Raid 75
Scorpions 80
The Indus 82
Kashmir and Ladak 87

VII. Eastern Turkestan (1895)—
The Takla-makan Desert 89
Across a Sea of Sand 90
The End of the Caravan 93
Water at Last 97

VIII. The Desert Waterway (1899)—
Down the Yarkand River 102
The Tarim 105
The Wandering Lake 107
Wild Camels 109

IX. In the Forbidden Land (1901-2, 1906-8)—
The Plateau of Tibet 111
Attempt to reach Lhasa 115
The Tashi Lama 124
Wild Asses and Yaks 126

X. India—
From Tibet to Simla 130
Delhi and Agra 131

Benares and Brahminism 134
The Light of Asia 137
Bombay 141
The Useful Plants of India 142
Wild Elephants 145
The Cobra 148

XI. From India to China (1908)—
The Indian Ocean 152
The Sunda Islands 153
Penang and Singapore 156
Up the China Sea 157

XII. China—
To Shanghai 161
""The Middle Kingdom" 164
The Blue River 169
In Northern China 172
Mongolia 176
Marco Polo 179
XIII. Japan (1908)—
Nagasaki and Kobe 185
Fujiyama and Tokio 190
Nikko, Nara, and Kioto 193

XIV. Back to Europe—
Korea 197
Manchuria 199

The Trans-Siberian Railway 202
The Volga and Moscow 207
St. Petersburg and Home 210

PART II

I. Stockholm to Egypt—

To London and Paris 215
Napoleon's Tomb 218
Paris to Rome 222
The Eternal City 225
Pompeii 229

II. Africa—

General Gordon 236
The Conquest of the Sudan 247
Ostriches 250
Baboons 252
The Hippopotamus 253
Man-eating Lions 256
David Livingstone 261
How Stanley found Livingstone 275
The Death of Livingstone 282
Stanley's Great Journey 287
Timbuktu and the Sahara 297

III. North America—

The Discovery of the New World 306
New York 317
Chicago and the Great Lakes 326
Through the Great West 333

IV. South America—

The Inca Empire 341
The Amazons River 351

V. In the South Seas—

Albatrosses and Whales 358
Robinson Crusoe's Island 362
Across the Pacific Ocean 365
Across Australia 372

VI. The North Polar Regions—

Sir John Franklin and the North-West Passage 377
The Voyage of the "Vega" 386
Nansen 392

VII. The South Polar Regions 404

LIST OF ILLUSTRATIONS

Dr. Sven Hedin in Tibetan Dress *Frontispiece*
I. Berlin 6
II. Constantinople 13
III. Oil-Well at Balakhani 36
IV. A Persian Caravanserai 43
V. The Author's Riding Camel, with Gulam Hussein 46
VI. Tebbes 51
VII. A Baluchi Nomad Tent 76
VIII. Srinagar and the Jhelum River 87
IX. Digging for Water in the Takla-makan 94

X. The Author's Boat on the Yarkand River 102
XI. Tashi-lunpo 125
XII. Simla 131
XIII. The Taj Mahal 134
XIV. Benares 136
XV. Tame Elephants and their Drivers 147
XVI. On the Canton River 159
XVII. The Great Wall of China 165
XVIII. Gate in the Walls of Peking 176
XIX. A Japanese Ricksha 189
XX. Fujiyama 190
XXI. The Great Buddha at Kamakura 192
XXII. A Sedan-Chair in Seoul 199
XXIII. The Kremlin, Moscow 208
XXIV. Paris 216
XXV. Napoleon's Tomb 219
XXVI. The Colosseum, Rome 228

XXVII. Pompeii 233
XXVIII. The Great Pyramids at Ghizeh 238
XXIX. A Hippopotamus 254
XXX. The Fight on the Congo 294
XXXI. A Group of Beduins 300
XXXII. "Sky-Scrapers" in New York 323
XXXIII. Niagara Falls 331
XXXIV. Cañons on the Colorado River 339
XXXV. Cotopaxi 344
XXXVI. Indian Huts on the Amazons River 353
XXXVII. A Coral Strand 369
XXXVIII. Country near Lake Eyre 373
XXXIX. The "Fram" 393

LIST OF MAPS

PAGE

1. Map showing journey from Stockholm to Berlin 2
2. Map showing journey from Berlin to Constantinople 10
3. Plan of Constantinople 13
4. Map showing journey from Constantinople to Teheran, latter part of journey to Baku, and journey from Baku across Persia to Baghdad and back to Teheran 30
5. Map showing journey from Orenburg to the Pamir 56
6. Map showing journey from Teheran to Baluchistan 73
7. Map of Northern India, showing rivers and mountain ranges 82
8. Map of Eastern Turkestan 90
9. Tibet 112
10. Map of India, showing journey from Nushki to Leh, and journey from Tibet through Simla, etc., to Bombay 132
11. The Sunda Islands 154

12. Map showing voyage from Bombay to Hong Kong 158
13. Map of Northern China and Mongolia 174
14. Map showing journey from Shanghai through Japan and Korea to Dalny 184
15. The Trans-Siberian Railway 203
16. Map showing journey from Stockholm to Paris 216
17. Map showing journey from Paris to Alexandria 230
18. Map of North-Eastern Africa, showing Egypt and the Sudan 237
19. Livingstone's Journeys in Africa 262
20. North-West Africa 298
21. Toscanelli's Map 308
22. North America 325
23. South America 343
24. The South Seas 366
25. The North Polar Regions 378
26. The South Polar Regions 405

PART I

I

ACROSS EUROPE

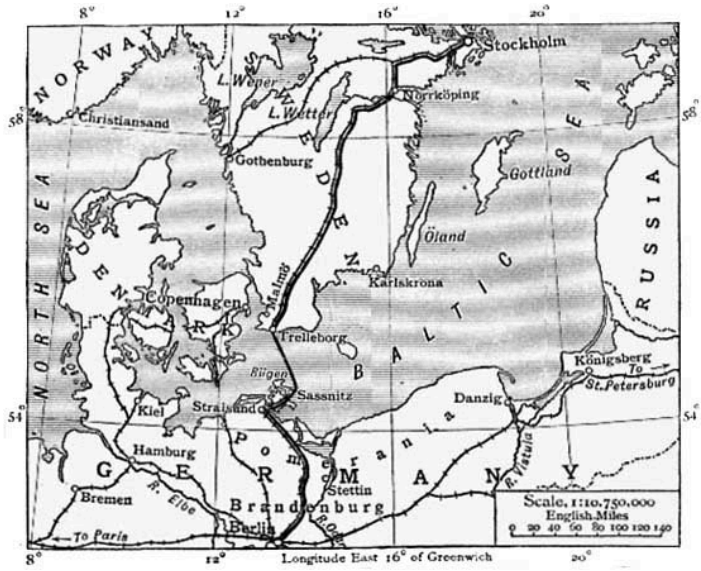
Stockholm to Berlin

Our journey begins at Stockholm, the capital of my native country. Leaving Stockholm by train in the evening, we travel all night in comfortable sleeping-cars and arrive next morning at the southernmost point of Sweden, the port of Trelleborg, where the sunlit waves sweep in from the Baltic Sea.

Here we might expect to have done with railway travelling, and we rather look for the guard to come and open the carriage doors and ask the passengers to alight. Surely it is not intended that the train shall go on right across the sea? Yet that is actually what happens. The same train and the same carriages, which bore us out of Stockholm yesterday evening, go calmly across the Baltic Sea, and we need not get out before we arrive at Berlin. The section of the train which is to go on to Germany is run by an

engine on to a great ferry-boat moored to the quay by heavy clamps and hooks of iron. The rails on Swedish ground are closely connected with those on the ferry-boat, and when the carriages are pushed on board by the engine, they are fastened with chains and hooks so that they may remain quite steady even if the vessel begins to roll. As the traveller lies dozing in his compartment, he will certainly hear whistles and the rattle of iron gear and will notice that the compartment suddenly becomes quite dark. But only when the monotonous groaning and the constant vibration of the wheels has given place to a gentle and silent heaving will he know that he is out on the Baltic Sea.

We are by no means content, however, to lie down and doze. Scarcely have the carriages been anchored on the ferry-boat before we are on the upper deck with its fine promenade. The ferry-boat is a handsome vessel, 370 feet long, brand-new and painted white everywhere. It is almost like a first-class hotel. In the saloon the tables are laid, and Swedish and German passengers sit in groups at breakfast. There are separate rooms for coffee and smoking, for reading and writing; and we find a small bookstall where a boy sells guidebooks, novels, and the Swedish and German newspapers of the day.



MAP SHOWING JOURNEY FROM STOCKHOLM TO BERLIN.

The ferry-boat is now gliding out of the harbour, and every minute that passes carries us farther from our native land. Now the whole town of Trelleborg is displayed before our eyes, its warehouses and new buildings, its chimneys and the vessels in the harbour. The houses become smaller, the land narrows down to a strip on the horizon, and at last there is nothing to be seen but a dark cloud of smoke rising from the steamers and workshops. We steam along a fairway rich in memories, and over a sea which has witnessed many wonderful exploits and marvellous adventures. Among the wreckage and fragments at its bottom sleep vikings and other heroes who fought for their country; but to-day peace reigns over the Baltic, and Swedes, Danes, Russians, and Germans share in the harvest of the

sea. Yet still, as of yore, the autumn storms roll the slate-grey breakers against the shores; and still on bright summer days the blue waves glisten, silvered by the sun.

Four hours fly past all too quickly, and before we have become accustomed to the level expanses of the sea a strip of land appears to starboard. This is Rügen, the largest island of Germany, lifting its white chalk cliffs steeply from the sea, like surf congealed into stone. The ferry-boat swings round in a beautiful curve towards the land, and in the harbour of Sassnitz its rails are fitted in exactly to the railway track on German soil. We hasten to take our seats in the carriages, for in a few minutes the German engine comes up and draws the train on to the land of Rügen.

The monotonous grind of iron on iron begins again, and the coast and the ferry-boat vanish behind us. Rügen lies as flat as a pancake on the Baltic Sea, and the train takes us through a landscape which reminds us of Sweden. Here grow pines and spruces, here peaceful roe-deer jump and roam about without showing the slightest fear of the noise of the engine and the drone of the carriages.

Another ferry takes us over the narrow sound which separates Rügen from the mainland, and we see through the window the towers and spires and closely-packed houses of Stralsund. Every inch of ground around us has once been Swedish. In this neighbourhood Gustavus Adolphus landed with his army, and in Stralsund Charles XII. passed a year of his adventurous life.

In the twilight the train carries us southwards through Pomerania, and before we reach

Brandenburg the autumn evening has shrouded the North German lowland in darkness. The country is flat and monotonous; not a hill, hardly even an insignificant mound, rises above the level expanse. Yet the land has a peculiar attraction for the stranger from Sweden. He thinks of the time when Swedish gun-carriages splashed and dashed through the mud before the winter frost made their progress still more difficult and noisy. He thinks of heroic deeds and brave men, of early starts, and horses neighing with impatience at the reveille; of victories and honourable peaces, and of the captured flags at home.

If he is observant he will find many other remembrances in the North German low country. Boulders of Swedish granite lie scattered over the plain. They stand out like milestones and mark the limits of the extension of the Scandinavian inland ice. During a colder period of the world's history all northern Europe was covered with a coat of ice, and this period is called the Ice Age. No one knows why the ice embraced Scandinavia and the adjacent countries and swept in a broad stream over the Baltic Sea. And no one knows why the climate afterwards became warmer and drier, and forced the ice to melt away and gradually to leave the ground bare. But we know for a fact that the boulders in northern Germany were carried there on the back of an immense ice stream, for they are composed of rocks which occur only in Scandinavia. The ice tore them away from the solid mountains; during its slow movement southwards it carried them with it, and when it melted the blocks were left on the spot.

At last points of light begin to flash by like meteors in the night. They become more and more numerous,

and finally come whole rows and clusters of electric lamps and lighted windows. We are passing through the suburbs of a huge city, one of the largest in the world and the third largest in Europe—Berlin.

Berlin

If we spread out on the table a map of Europe on which all the railways are indicated by black lines, the map will look like a net with irregular meshes. At all the knots are towns, large centres of population which are in constant communication with one another by means of the railways. If we fix our eyes on North Germany, we see what looks like an enormous spider's web, and in the middle of it sits a huge spider. That spider is called Berlin. For as a spider catches its prey in an ingeniously spun net, so Berlin by its railways draws to itself life and movement not only from Germany but from all Europe—nay, from the whole world.

If we could fly some hundreds of miles straight up into the air and had such sharp eyes that we could perceive all the coasts and boundaries of Europe, and plainly distinguish the fine lines of the railways, we should also see small, dark, short forms running backwards and forwards along them. We should see, as it were, a teeming ant-hill, and after every ant we should see a small puff of smoke. In Scandinavia and Russia the bustle would seem less lively, but in the centre of Europe the ants would scurry about with terrible activity.

Whether it was winter or summer, day or night, the bustle would never grow less. From our elevated point of view we should see innumerable trains flying in the night like glow-worms in every

direction. Ceaselessly they rush between cities and states, between the sea-coast and the inland districts, and to and from the heart of Europe. For during the last twenty years Berlin has become the heart of Europe. London is situated on an island, and Paris is too near the margin of the Continent. But in Berlin several of the greatest railway routes meet, and whether the traveller goes from Paris to St. Petersburg, from Stockholm to Rome, or from Hamburg to Vienna, he has always to pass through Berlin.

In the city which is "the heart of Europe" we must expect to find the main thoroughfares crowded with foot-passengers of all nationalities, and vehicles of every conceivable kind—motor cars, electric trams, horse omnibuses, vans, cabs, carts, and so on. Yet in spite of their endless streams of traffic, the streets of Berlin are not noisy—not nearly so noisy as those of Stockholm—for they are paved with asphalt and wood, and most of the conveyances have rubber tyres on their wheels. As in other large cities, the streets are relieved of a great deal of traffic by trains which run right through the town and round its suburbs, either up in the air on viaducts, or underground in tunnels lighted by electricity. At the Frederick Street Station of the City Railway, which lies in the centre of the town, a train arrives or departs every other minute of the day and of a good part of the night as well.

Not far off is a square—the "King's Place"—where a monument to commemorate the victory of the Germans over the French, in 1871, lifts its spire above the city, with three rows of cannon captured in France in its recesses. Close at hand, too, are the shady walks in the "Tiergarten" (Park), where all

Berlin is wont to enjoy itself on Sundays. When we turn eastwards, we have to pass through a great colonnade, the Brandenburg Gate, with Doric pillars supporting the four-horsed chariot of the goddess of victory in beaten copper. Here the German army entered Berlin after the conquest of France and the founding of the German Empire.

On the farther side of this gate stretches one of the most noted streets in Europe. For if Berlin is the heart of Germany, so is the street called "Unter den Linden" (Under the Lime-Trees) the centre and heart of Berlin. There are, indeed, streets which are longer, for this extends only two-thirds of a mile, but hardly any which are broader, for it is 66 yards across. Between its alternate carriage-roads and foot-walks four double rows of limes and chestnuts introduce a refreshing breath of open country right into the bosom of the great town of stone, with its straight streets and heavy, grey square houses. As we wander along "Unter den Linden" we pass the foreign embassies and the German government offices, and, farther on, the palace of the old Kaiser Wilhelm, which is unoccupied and has been left exactly as it was in his lifetime. He used to stand at a corner window on the ground floor, and look out at his faithful people.



PLATE I. BERLIN.

It is now just noon. Splendid carriages and motor cars sweep past, and the crush of people on the pavements is great. We hear the inspiriting music of a military band, and the Imperial Guard marches down the street, followed by crowds of eager sightseers. Keeping time with the music we march with them past the great Royal Library to where Frederick the Great looks down from his tall bronze horse on the children of to-day. On the one side is the Opera House, on the other is the University, with its ten thousand students, and farther on the Arsenal, with its large historical collections of engines of war. We cross over the "Schlossbrücke" (Palace Bridge), which throws its arch over the River Spree, and follow the parade into the "Lustgarten" (Pleasure Garden). The band halts at the foot of the statue of Frederick William III. and the people crowd round to listen, for now one piece is played after another. Thus the good citizens of Berlin are entertained daily.

There are several noteworthy buildings round the Lustgarten, among them many art museums and picture galleries, as well as the Cathedral and the Royal Palace (Plate I.). It looks very grand, this palace, though it does not stand, as it should, in the middle of a great open space, but is hemmed in by the streets around it.

Perhaps it would interest you to hear about a ball at the Imperial Court of Germany. At the stroke of nine our carriage drives in under the archway of the Palace. The carpeted staircases are lined by "Beef-eaters," in old-fashioned uniforms, as motionless as if they were cast in wax. They do not turn even their

eyes as the guests pass, much less their heads. Now we are up in the state rooms, and move slowly over the brightly polished floor through a suite of brilliant apartments glittering with electric light. Pictures of the kings of Prussia stand out against the gilt leather tapestry. At last we reach the great throne-room, which takes its name from the black eagles on the ceiling.

On the right is the Royal Palace, on the left the Cathedral, with the Lustgarten in front. In the foreground is the River Spree.]

What a varied scene awaits us here! Great ladies in costly dresses adorned with precious stones of great value, diamonds flashing and sparkling wherever we look, generals and admirals in full dress, high officials, ambassadors from foreign lands, including those of China and Japan. Here comes a great man to whom all bow; it is the Imperial Chancellor.

Chamberlains now request the guests to range themselves along the walls of the throne-room. A herald enters and strikes his silver staff against the floor, calling out aloud "His Majesty the Emperor!" All is silent as the grave. Followed by the Empress, the princes and princesses, William II. passes through the room and greets his guests with a manly handshake. He begins with the ladies and then passes on to the gentlemen and speaks to every one. The Swedish Minister presents me, and the Emperor begins immediately to ask about Asia. He speaks of Alexander's great campaign through the whole of western Asia, and expresses his astonishment that a man's name can live with undiminished renown through two thousand years. He points to the eagles on the ceiling, and asks if I do not see a resemblance

to the Chinese dragon. He talks of Tibet and the Dalai Lama, and of the great stillness in the heart of the desert.

Soon the orchestra strikes up and the guests begin to dance. The only one who seems unconcerned is the Emperor himself. An expression of deep seriousness lies like a mask on his powerful face. Is it not enough to be the Emperor of the German federation, with its four kingdoms, Prussia, Bavaria, Saxony, and Würtemberg, its six grand duchies, its many duchies and electorates, its imperial territory, Alsace-Lorraine, and its three free towns, Hamburg, Lübeck, and Bremen? Does he not rule over sixty-five million people, over 207 towns of more than 25,000 inhabitants, and seven of more than half a million, namely Berlin, Hamburg, Munich, Dresden, Leipzig, Breslau, and Cologne? Has he not by the force of his own will created a fleet so powerful as to arouse uneasiness in England, the country which has the sole command of the sea? And is he not the commander-in-chief of an army which, on a war footing, is as large as the whole population of Scotland? All this might well make him serious.

Berlin to Constantinople

The next stage of our journey is from Berlin to Vienna, the capital of Austria. The express train carries us rapidly southward through Brandenburg. To the west we have the Elbe, which flows into the North Sea at Hamburg; while to the east streams the Oder, which enters the Baltic Sea at Stettin. But we make closer acquaintance only with the Elbe, first when we pass Dresden, the capital of Saxony, and again when we have crossed the Austrian frontier

into Bohemia, where in a beautiful and densely-peopled valley clothed with trees the railway follows the windings of the stream. When the guard calls out at a large and busy station "Prague," we are sorry that we have no time to stay a few days and stroll through the streets and squares of one of the finest and oldest towns of Europe. The engine's whistle sounds again and the train carries us swiftly onwards to Vienna, the capital of the Emperor Francis Joseph, who alone is more remarkable than all the sights of the city.

Vienna is a fine and wealthy city, the fourth in Europe, and, like Berlin, is full of centres of human civilisation, science and art. Here are found relics of ancient times beside the grand palaces of the present day, the "Ring" is one of the finest streets in the world, and the tower of St. Stephen's Church rises up to the sky above the two million inhabitants of the town. Vienna to a greater extent than Berlin is a town of pleasure and merry genial life, a grand old aristocratic town, a town of theatres, concerts, balls, and cafés. The Danube canal, with its twelve bridges, passes right through Vienna, and outside the eastern outskirts the Danube itself, in an artificial bed, rolls its dark blue waters with a melodious murmur, providing an accompaniment to the famous Viennese waltzes.

If Vienna is, then, one of the centres of human knowledge and refinement, and if there are a thousand wonderful things to behold within its walls, yet it contains nothing more remarkable than the old Emperor. Not because he is so old, or because he still survives as one of the last of an almost extinct generation, but because by his august personality he keeps together an empire composed of many

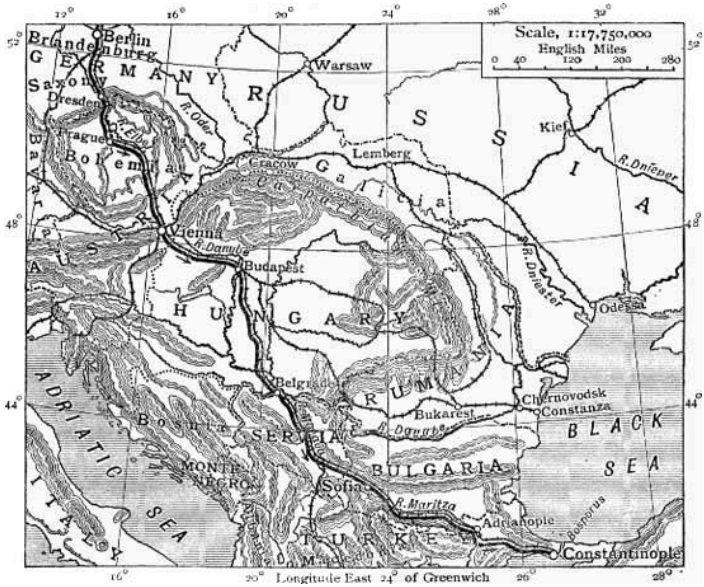
different countries, races, and religious sects. Fifty millions of people are ranged under his sceptre. There are Germans in Austria, Chechs in Bohemia, Magyars in Hungary, Polacks in Galicia, and a crowd of other peoples; nay, even Mohammedans live under the protection of the Catholic throne.

His life has abounded in cares and vicissitudes. He has lived through wars, insurrections, and revolutions, and with skill and tact has held in check all the contending factions which have striven and are still striving to rend asunder his empire. It is difficult to imagine the Austro-Hungarian monarchy without him. With him it perhaps stands or falls; therefore there is no one in the present day whose life is of greater importance to humanity. He has been the object of murderous attempts: his wife was assassinated, his only son perished by a violent death. He is now eighty-two years old, and he has worn the imperial crown for sixty-four years. Since 1867 he has been king of Hungary. During his reign the industry, trade, agriculture, and general prosperity of his dominions have been enormously developed. And the most remarkable of all is that he still carries his head high, is smart and upright, and works as hard as a labourer in the Danube valley.

The fortunes of Austria and Hungary are still more closely united with and dependent on the great river Danube. Certainly in the north we have the Elbe and the Dniester, and in the south several small rivers which enter the Adriatic Sea. But otherwise all the rivers of the monarchy belong to the Danube, and collect from all directions to the main stream. The Volga is the largest river of Europe and has its own sea, the Caspian. The Danube is the next largest and has also its sea, the Black Sea. Its source is also

"black," for it takes its rise in the mountains of the Black Forest in Baden, and from source to mouth it is little short of 1800 miles.

The Danube flows through Bavaria, Austria, and Hungary, forms the boundary between Rumania and Bulgaria, and touches a small corner of Russian territory. It has sixty great tributaries, of which more than half are navigable. Step by step the volume of the main stream is augmented. We can see that for ourselves on our way through Europe. At Budapest, which is cut in two by the river, and where five handsome bridges connect the banks, we seem almost to be on a lake. The Elizabeth Bridge has a span of 950 feet. Farther down, on the frontier of Wallachia, the river is nearly two-thirds of a mile wide; but here the current is slow; creeks of stagnant water are formed, and marshes extend far along the banks. And at the point where the Rumanian railway crosses the Danube, we find at Chernovodsk a bridge over the river which is nearly 2-1/2 miles long and is the longest in all the world. Not far from here the waters of the Danube part into three arms and form a broad delta at the mouth. There grow dense reeds, twice as high as a man, on which large herds of buffaloes graze, where wolves still seek their prey, and where water-fowl breed in millions. If we look carefully at the map, we shall see that Central Europe is occupied mostly by the Danube valley, and that this valley, with its extensive lowlands, is bounded by the best-known mountains of Europe; in the north by the mountains of South Germany and Bohemia and the Carpathians, in the south by the Alps and the mountains of the Balkan Peninsula.



MAP SHOWING JOURNEY FROM BERLIN TO CONSTANTINOPLE.

From Budapest the train takes us over the Hungarian plain, a very singular country, like a trough, for it is surrounded by mountains on all sides. There is abundance of rain, especially up on the mountain slopes. The winter is cold and the summer warm, as is always the case in countries far removed from the sea. Dust and sand storms are common, and in some parts blown sand collects into dunes. Formerly the Hungarian lowland was a fertile steppe, where Magyar nomads roamed about on horseback and tended their cattle and their enormous flocks of sheep. But now agriculture is extended more and more. Wheat, rye, barley, maize, rice, potatoes, and wine are produced in such quantities that they are not only sufficient for the country's needs, but also maintain a considerable export trade. Round the

villages and homesteads grow oaks, elms, lime-trees, and beeches; poplars and willows are widely distributed, for their light seeds are carried long distances by the wind. But in the large steppe districts where marshes are so common the people have no other fuel but reeds and dried dung.

Cattle-raising has always been an important occupation in Hungary. The breed of cows, oxen, and buffaloes is continually being improved by judicious selection, and all kinds of sheep, goats, and pigs are kept in great numbers, while the rearing of fowls, bee-keeping, the production of silk from silkworms, and the fishing industry are also highly developed. To the nomads, who wander from one locality to another with their herds, horses are necessary, and it is therefore quite natural that Hungary should be rich in horses—splendid animals of mixed Tatar and Arabian blood.

This country, where all wealth grows and thrives, and where the land, well and uniformly watered, contributes in such a high degree to the well-being of man, is flat and monotonous when viewed from the train. We see herds with their mounted herdsmen, we see villages, roads and cottages, but these do not give us any very clear conception of the country. Therefore it is advisable to spend a few hours in the agricultural exhibition at Budapest, where we can see the most attractive models illustrating Hungarian rural life, from pastures and farmyards to churned butter and manufactured cheeses, from the silk-worm in the chrysalis to the valuable silken web. We can see the life of farmers in the country homesteads, in simple reed huts or tents, the various crops they grow on their fields, the yellow honeycombs taken from the hives in autumn, tanned leather and the

straps, saddles, and trunks that are made of it. We can see the weapons, implements, and spoil of the Hungarian hunter and fisherman, and when we come out of the last room we realise that this country is wisely and affectionately nursed by its people, and therefore gives profit and prosperity in exchange.

With unabated speed the train rushes on over the plain, and at length rattles across a bridge over the Danube into Belgrade, the capital of Servia. Here we bid good-bye to the Danube and follow the Morava valley upwards. The Servian villages of low white houses, with pyramidal roofs of tiles or thatch, are very pretty and picturesquely built; and above them, green heights, wooded slopes, flocks and herds, and peasants in bright-coloured motley clothes following the plough. Small murmuring brooks dance in merry leaps down to the Morava, and the Morava itself flows to the Danube. We are still in the drainage basin of this river, and, when we have crossed the whole of Servia, passed over a flat mountain ridge and left Sofia, the capital of Bulgaria, behind us and have come to another stream, even this is one of the affluents of the Danube.

During a large part of our journey we are therefore strongly impressed by this mighty stream, and perceive that it is a condition of existence to whole peoples and States. Innumerable boats navigate its channel—from rowing-boats, ferries, and barges to steamers of heavy freight. They maintain communication between the series of towns with walls and houses reflected in the gliding water. Their wharves are frequently in connection with trains; and many railways have been built with an eye to the traffic on the Danube. In early times, when the migrations of people from the east streamed over

Europe, the Danube valley was generally utilized; and still at the present day the river affords an advantageous channel of communication between the western and eastern parts of the Continent.

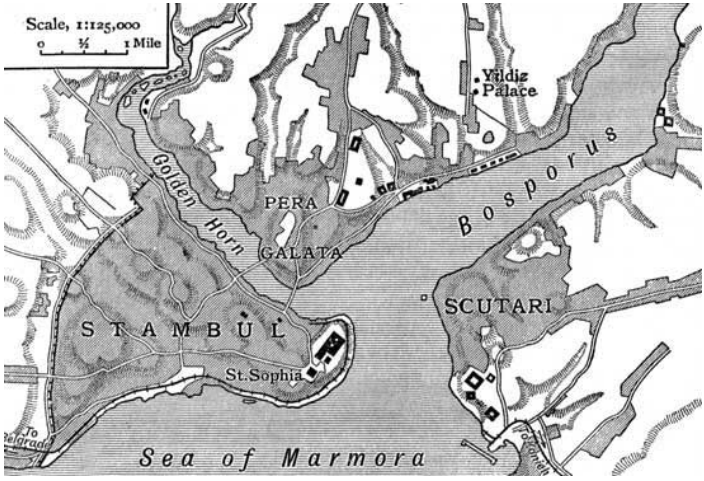
Night jealously conceals from our eyes the kingdom of Bulgaria, as we travel through its southern part along the river Maritza, which flows southwards. We do not leave its valley until we are beyond the Turkish frontier and Adrianople. Here we are in the broadest part of the Balkan Peninsula; and amidst the regular swaying of the train we lie thinking of the famous Balkan lands which extend to the south—Albania, with its warlike people among its mountains and dales; Macedonia, the country of Alexander the Great; Greece, in ancient times the centre of learning and art. When day dawns we are in Turkey, and the sun is high when the train comes to a standstill in Constantinople.

Constantinople



PLATE II. CONSTANTINOPLE.

From the highest platform of the lofty tower which rises from the square in the centre of the promontory of Stambul a wonderful view can be obtained of the city and its surroundings—a singular blending of great masses of houses and glittering sheets of blue water. Stambul is the Turkish quarter. It consists of a sea of closely-built wooden houses of many colours. Out of the confusion rise the graceful spires of minarets and the round domes of mosques (Plate II.). Just below your feet is the great bazaar—the merchants' town; and farther off is St. Sophia, the principal mosque. Like Rome, the city is built on seven hills. In the valleys between, shady trees and gardens have found a site. Far to the west are seen the towers on the old wall of Stambul.



PLAN OF CONSTANTINOPLE.

Before you to the north, on the point of a blunt promontory, stand the two quarters called Galata and Pera. There Europeans dwell, and there are

found Greeks and Italians, Jews and Armenians, and other men of races living in the adjacent countries—in the Balkan Peninsula, in Asia Minor and Caucasia.

Between this blunt peninsula and Stambul an inlet runs north-westwards deep into the land. Its name is the Golden Horn, and over its water priceless treasures have from time immemorial been transported in ships.

Turn to the north-east. There you see a sound varying little in breadth. Its surface is as blue as sapphire, its shores are crowned by a whole chaplet of villages and white villas among luxuriant groves. This sound is the Bosporus, and through it is the way to the Black Sea. Due east, on the other side of the Bosporus, Scutari rises from the shore to the top of low hills. Scutari is the third of the three main divisions of Constantinople. You stand in Europe and look over the great city intersected by broad waterways and almost forget that Scutari is situated in Asia.

Turn to the south. Before your eyes lies the Sea of Marmora, a curious sheet of water which is neither a lake nor a sea, neither a bay nor a sound. It is a link between the Black and Aegean Seas, connected by the Bosporus with the former, and by the Dardanelles, the Hellespont, with the latter. The Sea of Marmora is 130 miles long. Seven miles to the south the Princes' Islands float on the water like airy gardens, and beyond in the blue distance are seen the mountains of Asia Minor.

You will acknowledge that this view is very wonderful. Your eyes wander over two continents and two seas. You are in Europe, but on the threshold of Asia; and when you look down on the

Turks swarming below, and at the graceful white boats darting across the sound, you may almost fancy that you are in Asia rather than in Europe. You will also notice that this fairway is an important trade route. Innumerable vessels pass daily through the Bosporus to the coasts of Bulgaria, Rumania, Russia, and Asia Minor, and as many out through the Dardanelles to Greece and the Archipelago and to the coasts of the Mediterranean.

Close beneath you all the colours and outlines are distinct. The water of the Bosporus is vividly blue, and the villas dazzlingly white. On the Asiatic side stand woods of dark-green cypresses, and outside the western wall Turks slumber in the deepest shade; cypresses, indeed, are the watchmen of the dead. And all round the horizon this charming landscape passes into fainter and lighter tones, light-blue and grey. You cannot perceive clearly where the land ends and sea and sky begin. But here and there the white wings of a sailing vessel flutter or a slight puff of smoke floats above a steamer.

A continuous murmur reaches your ears. It is not wind, nor the song of waves. It is the combined voice of nature and human labour. It is like the buzzing round a beehive. Now and then you distinguish the cry of a porter, the bell of a tramcar, the whistle of a steamer, or the bark of a dog. But, as a rule, all melt together into a single sound. It is the ceaseless noise that always hovers over the chimneys of a great city.

The Church of the Divine Wisdom

Let us now go down to the great mosque on the point. On the top of the principal dome we see a huge gilded crescent. This has glittered up there for

450 years, but previously the cupola was adorned by the Christian Cross. How came the change about?

Let us imagine that we are standing outside the church and let the year be 548 A.D. One of the finest temples of Christendom has just been completed by the first architect of his time from Asia Minor. The work has occupied sixteen years, and ten thousand workmen have been constantly engaged at it. But now it is finished at last, and the Church of the Divine Wisdom, Hagia Sophia, is to be consecrated to-day.

The great Emperor of the Byzantine realm, Justinian, drives up in a chariot drawn by four horses. He enters the temple attended by the Patriarch of Constantinople. The building is as large as a market-place, and the beautiful dome, round as the vault of heaven, is 180 feet above the floor. Justinian looks around and is pleased with his work. The great men of the church and empire, clad in costly robes, salute him. He examines the variegated marble which covers the walls, he admires the artistically arranged mosaic on the gold groundwork of the dome, he is amazed at the hundred columns which support the cupolas and galleries, some of dark-green marble, others of dark-red porphyry. The Emperor's wealth is inexhaustible. Has he not presented to the church seven crosses of gold, each weighing a hundred pounds? Does not the Church of the Divine Wisdom possess forty thousand chalice veils all embroidered with pearls and precious stones? Are there not in the sacristy twenty-four Bibles, which in their gold-studded cases weigh two hundred pounds each? Are not pictures of the Redeemer, of the Mother of God, of angels, prophets and evangelists suspended between the twelve columns of solid silver which are

the Holy of Holies in the temple? Are not the faithful moved to tears at the sight of the crucifix and at the remembrance that the gilded cross of silver is an exact copy of that which, more than five hundred years ago, was set up by Roman barbarians at Jerusalem?

Justinian turns round and examines the panels of the three doors which are said to have been made of wood from Noah's ark. The doors of the main entrance are of solid silver, the others are beautifully inlaid with cedar-wood, ivory, and amber. Above his head silver chandeliers swing in chains; some of them form together a cross, and are a symbol of the light of heaven hovering over the darkness of earthly life. The vault is flooded with light; and in the mosaic he sees the meek saints kneeling before God in silent supplication. Below the vault he sees the four cherubims with two pairs of wings. He thinks of the first chapter of Ezekiel: "And the likeness of the firmament upon the heads of the living creature was as the colour of the terrible crystal ... and I heard the noise of their wings, like the noise of great waters." He also calls to mind the book of Exodus, ch. xxxvii.: "Even to the mercy-seatward were the faces of the cherubims." It was the same here in his own church.

Inspired by humility before God and pride before his fellowmen, the Emperor Justinian moves to his prie-dieu. He falls on his knees and exclaims: "God be praised who has thought me worthy to bring such a work to completion! I have surpassed thee, O Solomon."

Then the pipes and drums strike up, and the glad songs of the people echo among the houses, which are decorated by webs of costly brocade hanging

from the windows. The festival is prolonged for fourteen days; casksful of silver coins are distributed among the multitude, and the Emperor feasts the whole city.

Then follow new centuries and new generations in the footsteps of the old. The bones of Christians moulder under the grave mounds, but still the temple remains as before. There priests and patriarchs and fathers of the Church assemble to Church Councils, and the great festivals of the year are celebrated under its vault. Nearly a thousand years of the stream of time have passed away, and we come to May 29, 1453.

May is a fine month in Constantinople. The summer is in all its glory, the gardens are gorgeous in their fresh verdure, the clear waters of the Bosporus glitter like brightly polished metal. But what a day of humiliation and terror was this day of May, 1453! In the early morning tidings of misfortune were disseminated among the citizens. The Turkish Sultan had stormed in through the walls with his innumerable troops. Beside themselves with fright, men, women, and children fled to St. Sophia, leaving their homes and goods to be plundered. A hundred thousand persons rushed in and locked and barred all the church doors behind them. They trusted that the conqueror would not dare to desecrate so holy a place. Abashed before the holiness of God, he would bow down in the dust and leave them in peace. And according to a prophecy the angel of God would descend from heaven in the hour of need and rescue the church and the city.

The Christians waited, praying and trembling. Then the wild fanfares of the Mohammedan trumpets were

heard from the nearest hills. Piercing cries of anguish echoed from the vaulting, mothers pressed their children to their hearts, husbands and wives embraced each other, galley slaves with chains still on their wrists tried to hide themselves in the darkness behind the pillars.

The axes of the Mohammedans ring against the doors. Splinters of costly wood fly before the blows. Here a gate cracks, there another is broken in. The janissaries rush in, thirsting for blood. The Prophet has commanded that his doctrines shall be spread over the earth by fire and sword. They are only too ready to obey this order. Already steeped in blood from the combat outside the walls, they continue to gather in the harvest with dripping scimitars. The defenceless are fastened together with chains and driven out like cattle.

Then comes the turn of the holy edifice. The mosaics are hacked to pieces with swords and lances, the costly altar-cloths are taken from their store-room, the church is plundered of its gold and silver, and rows of camels and mules are led in on to the temple floor to be laden with the immense treasures. Full of fanatical religious hatred, swarms of black-bearded Turks rush up to the figure of the crucified Redeemer. A Mohammedan presses his janissary's cap over the crown of thorns. The image is carried with wild shrieks round the church, and presumptuous voices call out scornfully, "Here you see the God of the Christians."

At the high altar a Greek bishop stood in pontifical robes and read mass over the Christians in a loud and clear voice. His voice never trembled for a moment. He wished to give his flock heavenly

consolation in earthly troubles. At last he remained alone. Then he broke off the mass in the middle of a sentence, took the chalice, and ascended the steps leading to the upper galleries. The Turks caught sight of him and rushed after him like hungry hyænas.

He is already up in the gallery. He is surrounded on all sides by soldiers with drawn swords and lowered spears. Next moment he must fall dead over the communion chalice. No escape, no rescue is possible. Before him stands the grey stone wall.

But, lo! a door opens in the wall, and when the bishop has gone in the wall closes up again. The soldiers stand still in astonishment. Then they begin to attack the wall with spears and axes. But it is no use. They renew their efforts, but still in vain.

Four centuries and a half have passed since then, and still the Greeks cherish a blind faith that the day will come when St. Sophia will be restored to Christian uses, when the wall will open again and the bishop will walk out with the chalice in his hand. Calm and dignified he will descend the stairs, cross the church, and mount up to the high altar to continue the mass from the point where he was interrupted by the Turks.

Let us return to the savage soldiery. All the doors stand open, and the midday sun shines in through the arched windows. The pillage and tumult have reached their height when a fiery horse carries a rider up to the main entrance. He is attended by Mohammedan princes, generals, and pashas.[1] His name is Mohammed II., the Conqueror, the Sultan of the Turks. He is young and proud and has a will of iron, but he is solemn and melancholy. He dismounts and passes on foot over this floor, over the marble

slabs trodden a thousand years ago by the Emperor Justinian.

The first thing he sees is a janissary maliciously aiming his axe at the marble pavement. The Sultan goes up to him and asks, "Why?" "In the cause of the faith," answers the soldier. Then the Sultan draws his sabre, and, cutting the man down, exclaims, "Dogs, have you not loot enough? The buildings of the city are my property." And, kicking the dying man aside, he ascends a Christian pulpit, and in a thundering voice dedicates the Church of the Holy Wisdom to Islam.

Four and a half centuries have passed down the stream of time since the day when the cross was removed and the crescent raised its horn above the Church of the Holy Wisdom. The Turks have erected four minarets round the dome, and every evening from the platforms of these minarets sounds the voice of the muezzin, summoning the faithful to prayer. He wears a white turban and a long mantle down to his feet. To all four quarters of the city the call rings out with long, silvery *a*-sounds and full, liquid *l*'s: "God is great (four times repeated). I bear witness that there is no god but God (twice repeated). I bear witness that Mohammed is the Apostle of God (twice repeated). Come to prayers! Come to prayers! Come to salvation! Come to salvation! God is great. There is no god but God."

Now the sun sinks below the horizon, and a cannon shot thunders forth. We are in the month of fasting, during which the Mohammedans do not eat, drink, or smoke each day so long as the sun is up. Thus the Prophet commands in the Koran, their holy book. The firing of the gun proclaims the end of the fast for

to-day, and when the faithful have refreshed themselves with the smoking rissoles and rice puddings, or fruit, coffee, and water-pipes which stand ready, they turn their steps to the old Church of the Divine Wisdom, which still retains its Greek name. Round the minarets thousands of lamps are lighted, and between the towers the sacred names hang in flaming lights. Inside the mosque, on chains fifty feet long, hang chandeliers, full of innumerable oil-lamps in small round glass bowls, and on extended lines hang other lamps as close as the beads of a rosary. The floor of the mosque is a sea of light, but the interior of the dome is hid in gloom. Huge green shields affixed to the columns bear in golden letters the names of Allah, Mohammed and the saints, and the characters are thirty feet high.

The faithful have already filled the floor, which is covered with straw matting. Shoes must be left outside on entering the mosque, and a man must wash his arms, hands, and face before he goes in. Now the Turks stand in long rows, white and green turbans and red fezes with black tassels all mixed together. All turn their faces towards Mecca. All hands go up together to the height of the face and are stretched out flat, the thumbs touching the tip of the ear. Then they bend the body forward, resting their hands on their knees. Next they fall on their knees and touch the floor with their foreheads. "Prayer is the key to Paradise," says the Koran, and every section of the prayer requires a certain posture.

A priest stands in a pulpit and breaks in on the solemn silence with his clear musical voice. The last word dies away on his lips, but the echo lingers long in the dome, hovering like a restless spirit among the statues of the cherubim.

Among us at home there are people who are ashamed of going to church. A Mohammedan may neglect his religious duties, but he always regards it as an honour to fulfil them. When we come to Persia or Turkestan we shall often see a caravan leader leave his camels in the middle of the march, spread out his prayer-mat on the ground, and recite his prayers. They do not do it thoughtlessly or slovenly: you might yell in the ear of a Mohammedan at prayer and he would take no notice.

"There is no god but God!" The words sound like a trumpet-blast, as a summons over boundless regions of the Old World. From its cradle in Arabia, Islam has spread over all the west and centre of Asia, over the southern parts of the continent, over certain regions in south-eastern Europe, and over half Africa. It is no wonder that Mohammedan missionaries find it easy to convert the blacks of Africa. Mohammed promises them Paradise after death, and Paradise is only a continuation of worldly pleasures—a place where the blessed dwell under palms which continually bear fruit, where clear springs leap forth, and where flutes and stringed instruments make music in eternal summer.

The Bazaars of Stambul

As a child Fatima Hanum played in one of the narrow streets of Stambul. When she was old enough, her parents betrothed and married her to Emin Effendi, the son of an influential pasha. She knew little of him beyond that he was rich and was considered a good match. His house was situated in one of the larger streets of Scutari, and consisted of two wings completely cut off from each other. In the

one the husband had his apartments, in the other lived the women. For Fatima is not alone; her husband has three other wives, and all four have male and female slaves who guard them strictly.

Poor Fatima is thus unfortunate from the first. She cannot live happily with a man whose affection is not hers alone, and it is difficult for her to live in peace with the three other women who have the same rights as herself. Her life is empty and wearisome, and her days are passed in idleness. For hours she stands behind the lattice in the oriel window which projects over the street and watches the movement going on below. When she is tired of this she goes in again. Her room is not large. In the middle splashes a small fountain. Round the walls extend divans. She sinks moodily on to one of them and calls a female slave, who brings a small table, more like a stool. Fatima rolls a cigarette, and with dreamy eyes watches the blue rings as they rise to the ceiling. Again she calls the slave. A bowl of sweets is brought, she yawns, takes a bit of sweetmeat, and throws herself on the soft cushions.

Then she drinks a glass of lemonade and crosses the room to a leather trunk, which she unlocks. In the trunk lie her ornaments: bracelets of gold, pearl necklaces, earrings of turquoise, and many cloths of coloured silk. She puts a necklace round her neck, adorns her fingers with rings, and winds thin silken veils round her head. When she is ready she goes up to the mirror and admires her own beauty. She is really handsome. Her skin is white and soft, her eyes are black, her hair falls in dark waves over her shoulders. She is not pleased with the colour of her lips. The slave brings out a small pot of porcelain and with a pencil paints Fatima's lips redder than the

coral which the Hindu dealers sell in the bazaar. Then the eyebrows are not dark enough, so they are blackened with Indian ink.

When Fatima is tired of examining her own features in the mirror she puts back her ornaments into the chest and locks it securely. A staircase leads down from her room to the garden. There she saunters for a time, enjoying the perfume of roses and jasmine, and stands before the cage of singing birds to amuse herself with them. One of the other wives comes down to the harem garden and calls out to her: "You are as ugly as a monkey, Fatima; you are old and wrinkled and your eyes are red. Not a man in all Stambul would care to look at you." Fatima answers: "If Emin Effendi had not been tired of you, old moth-eaten parrot, he would not have brought me to his harem." And then she hurries up to her room again to ask the mirror if it is true that her eyes are red.

In order to forget her vexation she decides to go over to the great bazaar in Stambul. The slave envelops her in a voluminous *kaftan*[2] in which her white hands with yellow-stained nails disappear among the folds. She slips into her shoes, which are like slippers with turned-up points, and puts on the most important garment of all—the veil. Its upper part covers the head and the forehead down to the eyebrows, while the lower part hangs down over the chin, mouth, and part of the nose. A woman does not show her face to any man but her husband. Of late years many women transgress this rule and let the lower part of the veil fall so low that most of the face is seen. Fatima, however, does not go with the new fashion. She shows only her eyes, but her glances are enough to let the man in the street perceive that she is beautiful. None of them is so impertinent as to

look at her or speak to her. Only Europeans she meets turn round.

The slave does not go with her. She stops at the quay where the *caiques*, or long rowing-boats, lie. The boatmen rise and scream together. Each one extols with words and gestures the excellences of his boat. She makes her choice, and steps in and sits down on the cushions. The *caique* is narrow and sharp as a canoe, painted white, with a gold border on the gunwale. Two powerful men take their oars, and the *caique* darts over the blue waters of the Bosporus. Half-way between Scutari and Stambul, Fatima looks eagerly down the Sea of Marmora. She longs for an hour of freedom, and orders the boatmen to change the direction. The wind is fresh, so they pull in their oars and hoist the sail, and the boat glides southward at a rapid pace. But Fatima is capricious, and is soon tired of the Sea of Marmora, and orders the men to steer to the nearest quay in Stambul. She gives them two silver coins, which they take without a word of thanks or civility. She hastens up to the great bazaar and steps from the hot sunlight of the streets into cool shade and gloom.

For the bazaars are like tunnels. They are streets and lanes covered with vaults of stone, where daylight penetrates sparingly through the cupolas in the roof. Here the heat of summer is not felt, and you can walk dry-shod on stormy and rainy days. You are soon accustomed to the darkness, but have great difficulty in finding the way unless you have been born in Stambul and have often passed through this labyrinth. The passages are quite narrow, but yet wide enough to allow *droshkies*[3] and carts to pass through.

The bazaar, then, is an underground town in itself, a town of tradesmen and artisans. On either side of every street is an endless row of small open shops, the floors of which are raised a little above the level of the street, and serve also as counters or show stands. The shops are not mixed up together, but each industry, each class of goods, has its own street. In the shoemakers' street, for example, shoes of all kinds are set out, but the most common are slippers of yellow and red leather, embroidered and stitched with gold, for men, women, and children, for rich and poor. For a long distance you can see nothing but slippers and shoes right and left.

You are very glad when the shoe department comes to an end and you come to a large street where rich shopkeepers sell brocades of silver, gold, and silk. It is best not to take much money with you to this street, or you will be tempted to buy everything you see. Here lie mats from Persia, embroidered silken goods from India, shawls from Kashmir, and the finest work of southern Asia and northern Africa. Poor Fatima! Her husband is wealthy enough, but he has no mind to let her scatter his money about in the great bazaar. With sad looks she gazes at the turquoises from Nishapur, the rubies from Badakshan, the pearls from the coast of Bahrein, and the corals from the Indian Ocean.

When she has spent all the silver coins she has with her, she turns to leave, but it is a long way to the entrances of the bazaar. She passes through the street of the metalworkers and turns off at the armourers' lane. There the noise is deafening: sledge hammers and mallets hammer and beat, for the shops of the bazaar are workshops as well.

Again she turns a corner. Evidently she has lost her way, for she stands and looks about in all directions. She has now come to a passage where water-pipes and all articles connected with smoking are sold. Then she turns in another direction. An odour tells her a long distance off that she is coming to the street of spice-dealers. She has to ask her way almost at every step.

Not only in Constantinople but in all parts of the Turkish Empire, and all over the Mohammedan world, goods are bought and sold in these half-dark tunnels which are called bazaars. It is the same in the Mohammedan towns of North Africa, in Arabia, Asia Minor, Persia, Caucasia, Afghanistan, India, and Turkestan. Wherever minarets rise above the dwellings of men and the muezzin sings out his everlasting "There is no god but God," the exchange of wares and coin is carried on in dark bazaars. The great bazaar in Stambul is one of the richest, but even where the bazaars are small and insignificant the same order prevails, the same mode of life. Among Turkish men and women of high rank stroll poor ragamuffins and dervishes or begging monks. A caravan of camels moves slowly through the crowd, bringing fresh supplies to the tradesmen from a steamboat quay or from the railway station. The camels have scarcely disappeared in the darkness before a train of mules with heavy bales follows in their track. A loud-voiced man offers for sale grapes and melons he carries in a basket, while another bears a water-bottle of leather.

And all the races which swarm here! The great majority are, of course, Turks, but we also see whole rows of shops where only Persians trade. We see Hindus from India, Egyptians from Cairo, Arabs from

the coasts of the Red Sea, Circassians and Tatars from the Caucasus and the Crimea, Sarts from Samarkand and Bokhara, Armenians, Jews, and Greeks, and not infrequently we meet a negro from Zanzibar or a Chinaman from the farthest East.

It is a confusion of shopmen and customers, brokers and thieves from all the East. A noise and bustle, a deafening roar which never ceases all day long, a hurrying, a striving and eagerness to clear the stock and gain money. If the prices were fixed, business would soon be done. But if you have taken a fancy to a Kurdish mat and ask the price, the tradesman demands a quite absurd sum. You shrug your shoulders and go your way. He calls out another, lower price. You go on quietly, and the man comes running after you and has dropped his price to the lowest. In every shop bargains are made vociferously in the same way. There is a continual buzz of voices, now and then interrupted by the bells of caravans.

The illumination is dim. The noonday sun penetrates only through openings in the vault and forms patches of light. Dust floats about in the shafts of light, mixed with smoke from water-pipes. The greater the distance the dimmer this confined air appears. There is also an indescribable odour. The smell of men and animals, of dusty goods, of rank tobacco, of rotting refuse, strong spices, fresh, juicy fruit—all mixed together into a peculiar odour which is characteristic of all Oriental bazaars.

The bazaar of Stambul contains a great deal besides. On the northern side is a line of old caravanserais, massive stone buildings of several storeys, with galleries, passages, and rooms, and with a large open court in the centre. Here resort the wholesale

merchants, and here are their warehouses and stocks. Lastly, cafés and eating-houses are found in the tunnelled streets, baths and small oratories, so that a man can pass his whole day in the bazaar without needing to go home. He can obtain all he wants in the vicinity of his shop.

FOOTNOTES:

[1] "Pasha" is an honorary title given to officials of high rank in Turkey and Egypt, as to governors of provinces, military commanders, etc.

[2] A garment worn throughout the Levant, consisting of a long gown fastened by a girdle and having sleeves reaching below the hands.

[3] A "droshky" is a low, four-wheeled, open carriage, plying for hire. The word is Russian.

II

CONSTANTINOPLE TO TEHERAN (1905)

The Black Sea

Attended by the *cavass*[4] of the Swedish Embassy, old Ali, I drove down to the quay on a fresh, sunny October morning, loaded all my boxes on board a

caique, and was rowed by four men out to the Bosporus between anchored sailing vessels, steamers, and yachts. On arriving at the gangway of a large Russian steamer, I waited until all my luggage was safe on board and then followed it.

The anchor is weighed, the propeller begins to turn, and the vessel steers a course northwards through the Bosporus. With my field-glasses I settle down on a bench in the stern and take farewell of the Turkish capital. How grand, how unforgettable is this scene! The white, graceful minarets shoot up to heaven from the sea of houses, and the cypresses—tall, grave, and straight as kings—also seem to point out to the children of earth the way to Paradise. Everywhere the houses mount up the hills, ranged like the rows of seats in a theatre. The whole is like a gigantic circus with an auditorium for more than a million Turks, and the arena is the blue water of the Bosporus.

The steamer carries us away relentlessly from this charming picture. As dreams fade away in the night, so the white city is concealed by the first promontories. Then I change my place and look ahead. Perhaps the view is even more beautiful in this direction. The sound is like a river between steep, rocky shores, but in the mouth of every valley, and wherever the margin of the shore is flat, stand white villas and mansions, villages, walls and ruins, gardens and groves. The Bosporus is barely twenty miles long. In some places its breadth is less than a third of a mile, in others two-thirds. Old plane-trees spread their crowns over fresh meadows, and laurels, chestnuts, walnuts, and oaks afford deep shade. White dolphins skim along the water, and a school of porpoises follows in the wake of the boat, waiting for

the refuse from the cook's galley. They are dark, soft, and smooth, their backs shining like metal, and they can easily be seen several feet below the surface. A single flap of the tail fin gives them a tremendous impulse, and they come up to the surface like arrows discharged by the gods of the sea, and describe beautiful somersaults among the waves. They could easily overtake us if they liked, but they content themselves with following close behind us hour after hour.

To the left we have the European coast, to the right the Asiatic. The distance is always so small that the Europeans can hear the bark of the Asiatic dogs. Here is Terapia, with the summer villas of Christians and the ambassadors' palaces. Turkish coffee-houses are erected on the shore, and their balconies hang over the water. Farther on there is a large valley with an ancient plane-tree with seven trunks which are called "the seven brothers." According to tradition Godfrey de Bouillon with his crusaders reposed under its shade in the winter of 1096-1097, when he marched to recover the holy sepulchre and win the sounding title of "King of Jerusalem."

Now the channel widens out and the coasts of the two continents diverge from each other. We see the horizon of the Black Sea opening before us, and the vessel begins to pitch. Lighthouses stand on either side of the entrance, which is commanded by batteries high above it. We roll out into the sea, and half an hour later we can hardly see the break in the coast-line which marks the end of the Bosporus.

We make straight for Sebastopol, near the southernmost point of the Crimea. This is the station of the Russian Black Sea fleet, but the Russians have

little pride in it, for the Turks control the passage to the Mediterranean, and without the consent of the other great Powers the Russian warships cannot pass through. The Black Sea is, of course, open to the mercantile vessels of all nations.

You know, of course, that Europe has four landlocked seas, the Baltic, the Mediterranean, the Black and Caspian Seas. The Baltic is enclosed all round by European coasts; the Black and Caspian Seas belong to both Europe and Asia; while the Mediterranean lies between the three continents of the Old World—Europe, Asia, and Africa. Now the Baltic, Black, and Caspian Seas are of about the same size, each having an area about three times that of England and Wales. The Baltic is connected with the Atlantic by several sounds between the Danish islands and Scania. The Black Sea has only one outlet, the Bosporus. The Caspian Sea has no outlet at all, and is really a lake.

The Baltic is very shallow, its maximum depth, south-east of the Landsort lighthouse, being 250 fathoms. Next comes the Caspian Sea with a depth of 600 fathoms. The singular feature of this, the largest lake in the world, is that its surface lies 85 feet below that of the Black Sea. This last is the deepest of the three, for in it a sounding of 1230 fathoms has been taken.

All three seas are salt, the Baltic least and the Caspian most. Four great rivers enter the Black Sea, the Danube, Dniester, Dnieper, and Don. It therefore receives large volumes of fresh water. But along the bottom of the Bosporus an undercurrent of salt water passes into the Black Sea, which is compensated for by a surface stream of less salt and therefore lighter

water flowing to the Mediterranean.

The Black Sea is not blacker than any other sea, nor is the White Sea white, the Yellow Sea yellow, or the Red Sea red. And so no faith should be accorded to the story of a captain in the Mediterranean who wished to sail to the Red Sea but went to the Black Sea—because he was colour-blind!

But now we can continue our heaving course, still accompanied by dolphins and porpoises. We look in at the harbour of Sebastopol, we anchor in open roadsteads off Caucasian towns, we moor our cables to the rings on the quay of Batum, and finally drop our anchor for the last time at a short distance from the coast of Asia Minor.

Proud and bright, with forest-clad heights in the background, Trebizond bathes in the rays of the midday sun. Small rowing-boats come out from the land to take passengers and goods to the quay. The Turkish boatmen scream all together, but no one listens to them. Every one is glad to be landed safe and sound with his baggage.

Trebizond to Teheran

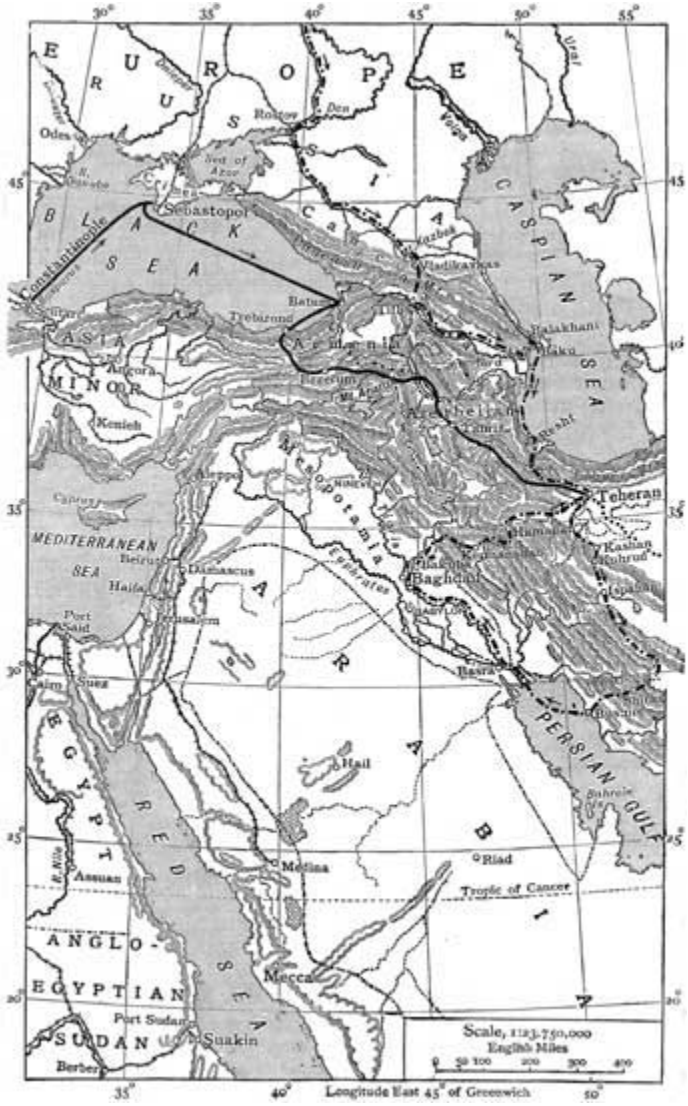
Trebizond was a Greek colony seven hundred years before the birth of Christ, and from time immemorial Persian trade has made its way to the Black Sea by the road which still runs through Tabriz to Teheran, a distance of 800 miles. This traffic is now on the decline, for modern means of communication have taken the place of the old caravans, and most of their trade has been diverted to the Suez Canal and the Caucasian railways. Many large caravans, however, still journey to and fro along this road, which is so

well made that one can drive not only to Tabriz, but still further to Teheran. It may, indeed, be softened by autumn rains or frozen hard on the high plateaus of Turkish Armenia, and the speed is not great when the same horses have to be used for distances of 160 miles.

It was a lively cavalcade that pounded and rattled over the Turkish and Persian roads in November, 1905. I was by no means alone. The Governors of Trebizond and Erzerum were so good as to provide me with an escort of six armed troopers on sturdy horses. In front rides a Turkish soldier on a piebald horse, carrying his carbine in a sling over his back, his sabre and dagger hanging at his side, and wearing a red fez with a white *pagri*[5] wound round it as a protection from sun and wind. Then I come in my carriage, drawn by three horses. Old Shakir, the coachman, is already my friend; it is he who prepares my meals and looks after me generally. I am well wrapped up in a Caucasian cloak, with a *bashlik*[6] over my cap, and lean back comfortably and look at the country as we drive along. Behind the carriage ride two soldiers on brown horses, engaged in a lively conversation and wondering whether they will be well tipped. Then come two clumsy carts, on which all my baggage is firmly secured. They have their own drivers and men, and are escorted by three troopers.

In this manner I travelled from Trebizond to Teheran. To the ceaseless rattle of the wheels and the heavy tramp of the horses' hoofs, I plunged day by day deeper into Asia. Soon the blue expanse of the Black Sea passed out of sight, as the road with many steep and sudden bends wound up to the top of a pass. On the other side it descended with as many

windings to the bottom of a valley. And thus we went up and down till we were up at length on the level Armenian tableland.



MAP SHOWING (*a*) JOURNEY FROM CONSTANTINOPLE TO TEHERAN (pp. 26-33); (*b*) LATTER PART OF JOURNEY TO BAKU (pp. 34-35); AND (*c*) JOURNEY FROM BAKU ACROSS PERSIA TO BAGHDAD AND BACK TO TEHERAN (pp. 37-45).

Here there is a complete change. During the first days after leaving the coast, we had driven through a beautiful and constantly changing landscape. We had passed through woods of coniferous trees and among rustling foliage of yellow leaves. Sometimes we had been hundreds of feet above an abyss, at the foot of which a bluish-green stream foamed between rounded rocks. Beside the road we had seen rows of villages and farms, with houses and verandahs of wood, where Turks sat comfortably in their shops and cafés; and we had met many small caravans of horses, asses, and oxen carrying hay, fruit, and bricks between the villages. We always began our day's march in the early morning, for the nights were mild and the sun had scarcely risen before it felt pleasant.

But up here on the plateau it is different. No firs adorn the mountain flanks, no foliaged trees throw their shade over the road. No creaking carts, laden with timber and drawn by buffaloes and oxen, enliven the way. The villages are scattered, and the houses are low cabins of stone or sun-dried clay. The Turkish population is blended with Armenians. The road becomes worse and more neglected as the traffic falls off. The air is cool, and there are several degrees of frost in the night.

When we have passed Erzerum, where the Christian churches of the Armenians stand side by side with the mosques of the Turks, we journey, as it were, on

a flat roof sloping down slightly on three sides, each with a gutter leading into its own water-butt. These water-butts are the Black Sea, the Caspian Sea, and the Persian Gulf, and they are always big enough to hold all the water, however hard it may rain on the stony roof which rises between Caucasia, Asia Minor, and Mesopotamia. The gutters are, of course, the rivers, the greatest of which is the Euphrates.

Now the road is very bad. There has been rain in the autumn; and now that it is freezing, the mud, all cut up by deep wheel-ruts, is as hard as stone. My vehicle shakes and jolts me hither and thither and up and down, and when we arrive at the village where we are to pass the night, I feel bruised all over. Shakir makes tea and boils eggs, and after supper I roll myself in my cloak and go to sleep.

It is pitch-dark when I am called, and still dark when we make a start by the light of lanterns. After a little a curious sound is heard across the plain. The clang becomes louder, coming nearer to us, and tall, dark ghosts pass by with silent steps. Only bells are heard. The ghosts are camels coming from Persia with carpets, cotton, and fruit. There are more than three hundred of them, and it is a long time before the road is clear again. And all the time there is a ringing as from a chime of bells.

For many thousands of years the same sound has been heard on the caravan routes. It is the same with the roar of the waters of the Euphrates and Tigris. Mighty powers have flourished and passed away on their banks, whole peoples have died out, of Babylon and Nineveh only ruins are left; but the waters of the rivers murmur just the same, and the caravan bells ring now as in the days when Alexander led the

Macedonian army over the Euphrates and Tigris, when the Venetian merchant Marco Polo travelled 620 years ago between Tabriz and Trebizond by the road we are now driving along, when Timur the Lame defeated the Turks and by this road carried the Sultan Bayazid in an iron cage to exhibit him like a wild beast in the towns of Asia.

A white morning cloud seems to be floating over the grey mountains to the east, but when the sun rises it is seen to be a cone as regular as the roof of an Armenian church. It is the snow-capped top of Mount Ararat, where the ark landed when the great flood went down. The summit is always covered with snow, for the mountain is a thousand feet higher than Mont Blanc.

Now we are not far from the frontier, where Kurdish brigands render the country unsafe, but once over the border into Persian territory there is no danger. We are now in the north-western corner of Persia, in the province of Azerbeijan, which is populated mainly by Tatars. The capital of the province is Tabriz, once the chief market for the trade of all northern Persia with Europe. Here goods were collected from far and near, packed in mats of bast and bound with ropes so as to form bales, which were laden on fresh camels and carried in fourteen days to Trebizond.

Now not more than a fifth part of this trade remains, but still the caravan life is the same, and as varied as ever. The Tatar leader rides in front; beside every seventh camel walks a caravan man, who wears a black lambskin cap, a blue frockcoat, a girdle round the waist, and pointed shoes. Each is armed with a dagger, for the Tatars are often at feud with the

Turks and Armenians, and the dagger has a groove on each side of the blade to allow the blood of the victim to run off. Many a caravan leader has spent the greater part of his life in travelling to and fro between Tabriz and Trebizond. On every journey he has seen Ararat to the north of the road, like a perpetually anchored vessel with its mainsail up; and he knows that the mountain is a gigantic frontier beacon which marks the spot where Russia, Turkey, and Persia meet.

On December 13 I arrived at Teheran, having driven 800 miles in a month. India was still 1500 miles off, and the route lies almost entirely through deserts where only camels can travel. I therefore bought fourteen fine camels, and took six Persians and a Tatar into my service.

FOOTNOTES:

[4] A government servant or courier.

[5] A light scarf wound round a hat or helmet in tropical countries, especially India.

[6] A kind of cloth hood covering the ears.

III

THROUGH THE CAUCASUS, PERSIA, AND MESOPOTAMIA

(1885-6)

St. Petersburg to Baku

On August 15, 1885, I went by steamer to St. Petersburg. There I entered a train which ran south-eastwards through Moscow to Rostov, at the mouth of the Don, and thence on to the Caucasus; and for four days I sat in my compartment, letting my eyes rove over the immense steppes of Russia. Hour after hour the train rolled along. A shrill whistle startles the air when we come to a station, and equally sharply a bell rings once, twice, and thrice when our line of carriages begins to move on again over the flat country. In rapid course we fly past innumerable villages, in which usually a whitewashed church lifts up its tower with a green bulb-shaped roof. Homesteads and roads, rivers and brooks, fruitful fields and haystacks, windmills with long revolving arms, carts and wayfarers, all vanish behind us, and twilight and night four times envelop huge Russia in darkness.

At last the mountains of the Caucasus appear in front of us, rising up to the clouds like a light-blue wall. The whole range seems so light and impalpable that we can scarcely believe that the very next day we shall be driving up its valleys and over heights which are more than 16,000 feet above the sea-level. The distance is still great, but the white summit of Mount Kazbek shines out amidst the blue.

At length we arrive at Vladikavkas, the end of the railway,[7] and begin our journey of 130 miles over the mountains. My travelling companions hired a carriage, and at every stage we had to change horses.

I sat on the box, and at the turns I had to hold on lest I should be thrown off down into the abyss at the side of the road.

We constantly meet peasants with asses, or shepherds with flocks of goats and sheep. Now comes a group of Caucasian horsemen in black sheepskin coats and armed to the teeth; then the post-cart, packed full of travellers; then again a load of hay drawn by oxen or grey buffaloes.

The higher we ascend, the grander and wilder the mountains become. Sometimes the road is blasted out of perpendicular walls of rock, and heavy masses of mountain hang like a vault above us. At dangerous slopes, where the road is exposed to avalanches in spring, it runs through tunnels of masonry. When an avalanche dashes furiously down the mountain it leaps over these tunnels and continues down on the other side without doing the road any harm.

We have now reached the highest point of the road, and after a journey of twenty-eight hours we arrive at Tiflis, the largest town in Caucasia, and one of the most curious towns I have seen. The houses hang like clusters of swallows' nests on the slopes on both sides of the Kura River, and the narrow, dirty streets are crowded with the fifteen different tribes who dwell in Caucasia.

While the road leading to Tiflis over the mountains is grand, a more dreary country can hardly be conceived than that crossed by the railway between Tiflis and Baku: endless steppes and deserts, greyish-yellow and desolate, with occasionally a caravan of slowly moving camels. A violent storm arose as we drew near the sea. Dust rose up in clouds and penetrated through all the chinks of the

compartment, the air became thick, heavy, and suffocating, and outside nothing could be seen but a universal grey veil of impenetrable mist. But the worst was that the storm struck the train on the side, and at last the engine was scarcely able to draw the carriages along. Twice we had to stop, and on an ascent the train even rolled back a little.

However, in spite of all, we at last reached the shore of the Caspian Sea, where clear green billows rose as high as a house and thundered on the strand. At seven o'clock in the evening we were at Baku, and drove ten miles to Balakhani, where I remained seven months.

I remember that time as if it were yesterday. I struggled hopelessly with the Russian grammar, but made great progress in Persian, and learned to talk the Tatar language without the least difficulty. Meanwhile I indulged in plans for a great journey to Persia. How it was to be managed I did not know, for my means were not large. But I made up my mind that through Persia I would travel, even if I went as a hired servant and drove other people's asses along the roads.

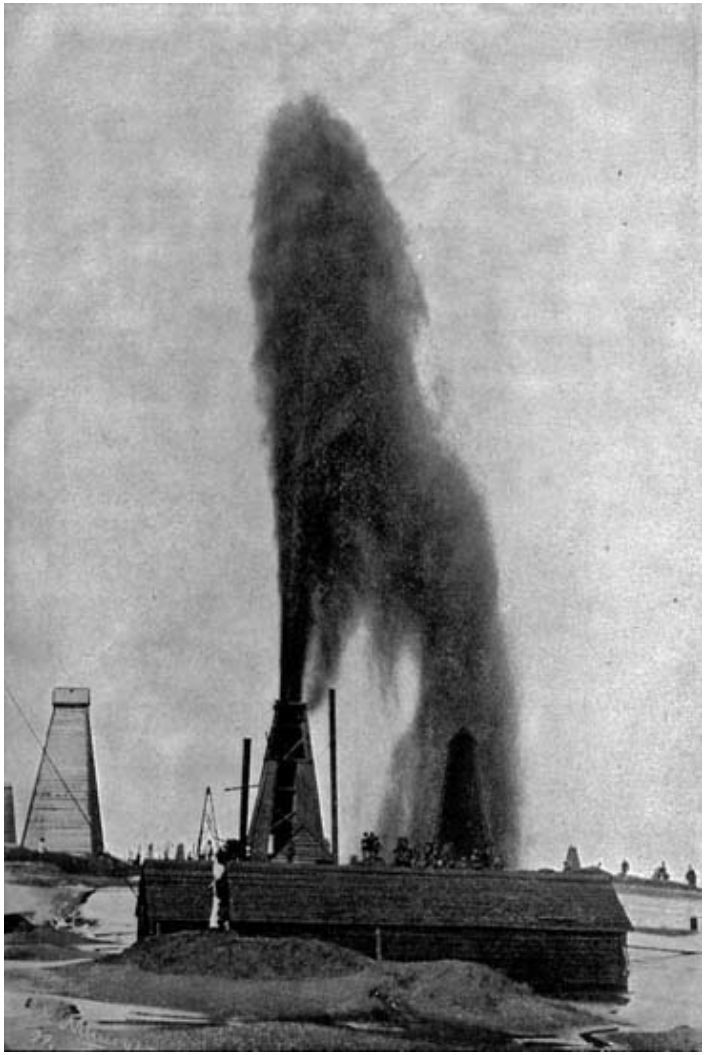


PLATE III. OIL-WELL AT BALAKHANI.
A fountain of oil forced up by natural pressure.

The whole country round Baku is impregnated with petroleum, which collects in vast quantities in

cavities in the earth. To reach the oil a tower of wood 50 to 65 feet high is erected, and a line with a powerful borer runs over a block at the top. A steam-engine keeps the line in constant motion, perpendicularly up and down, and the borer eats deeper and deeper into the earth. The first section of piping which is forced down into the bore-hole is about 40 inches in diameter. When this can go no farther the boring is continued with a smaller borer, and a narrower tube is thrust down within the first. And so the work is continued until the petroleum level is reached and the valuable oil can be pumped up.

But it often happens that the oil is forced up through the pipe by the pressure of gas in the bowels of the earth, and when I was at Balakhani we often used to go out and look at this singular display. With a deafening roar, a thick greenish-brown jet shot up out of the ground and right through the derrick (Plate III.). It was visible from a long distance, for it might be as much as 200 feet high, and the oil was collected within dams thrown up around. If there was a strong wind the jet would be dispersed, and a dark mist would lie like a veil over the ground to leeward. In Balakhani one can hardly look out of the door without one's clothes being smeared with oil, and the odour can be perceived a dozen miles away. Not a blade of grass grows in this neighbourhood; all that one sees is a forest of derricks. Lines of pipes convey the oil from the borings to the "Black Town" of Baku, which is full of oil refineries (over 170 in all) emitting vast volumes of smoke, black and greasy buildings, and pools of oil refuse. When the crude natural oil is purified, it is distributed far and wide in special railway trucks like cisterns, and in special tank steamers, into which the petroleum is

pumped, and which carry nothing else.

In the Baku oil-fields there are now (1910) no fewer than 4094 bores, of which 2600 are productive. Last year they yielded about eight million tons of raw petroleum, some of them having sometimes given nearly 300 tons in twenty-four hours by pumping, and 2000 when the oil shot out of the ground itself. The value on the spot is now about 20 shillings a ton. The deepest boring is sunk 2800 feet into the earth.

Late one evening in February, 1886, the dreadful cry of "Fire! Fire!" was heard outside our house. The very thought of fire is enough to raise terror and consternation throughout this oil-soaked district. We hurry out and find the whole neighbourhood illuminated with a weird, whitish light, as bright as day. The derricks stand out like ghosts against the light background. We make for the place and feel the heat increasing. Bright white flames shoot up fantastically into the air, sending off black clouds of smoke. One derrick is in flames and beside it a pool of raw petroleum is burning. A Tatar had gone to the derrick with a lantern to fetch a tool. He lost his lantern, and only just escaped with his life before the oil-soaked derrick took fire.

It is vain to fight against such a fire. The fire-engine came, and all the hoses were at work, but what was the use when the jets of water were turned to steam before they reached the burning surface of the oil pool? The chief thing is to keep the fire from spreading, and if that is done, the oil is left to bubble and burn until not a drop is left.

Across Persia

It was an adventurous journey that I commenced from Baku on April 6, 1886. I had a travelling companion, a young Tatar, Baki Khanoff, about £30 in my pocket, two changes of clothes and underclothing, a warm coat, and a rug—all, except what I wore, packed in a Tatar bag. In a small leather bag suspended by a strap from the shoulder I kept a revolver, a sketch-book, a note-book, and two maps of Persia. Baki Khanoff had a large cloak, a silver-mounted gun, and a dagger. Half the money we had was sewed up in belts round our waists. The equipment was therefore small for a journey of 2000 miles, through Persia and back.

For two days and a night we were compelled by a violent storm on the Caspian Sea to wait on board before the vessel could take us to the Persian coast. As soon as we landed we were surrounded by Persians, who, with loud voices and lively gestures, extolled the good qualities of their horses. After a cursory examination we chose two small, squat steeds, secured our baggage behind the saddles, mounted, and rode through dark woods and fragrant olive groves higher and higher towards the Elburz Mountains.

We passed a night up on the heights in a village called Karzan. When we set out next day it was snowing fast, and had snowed so thickly all night that all the country was buried under deep drifts. We muffled ourselves up as well as we could, mounted our horses, and rode on, accompanied by their owner.

The snow fell silently in large, whirling flakes. Down in the valley it melted off our clothes, but higher up on the open, windy heights it froze to a cake of ice,

and before long our clothes on the windward side were converted into a thick cuirass which prevented every movement. At last we were practically frozen fast in the saddle. Our hands were benumbed, the reins fell on the horses' necks, our eyes were sore from the snowstorm which dashed straight into our faces. I was so stiff that I lost all feeling in my arms and legs, tumbled off my horse, and went on foot, but I had to hold on to the animal's tail lest I should lose my way in the blinding snow.

We could not go on long in this way, for we could not see where we were going, so we decided to turn in at the first village on the road. Some squalid huts soon came in sight through the snow. Outside one of them we tied up our horses, shook off the snow, and entered a dark cabin with an earthen floor. Here a large fire was lighted, and we sat down beside it in a close circle with some other travellers who arrived at the same time. The place had a low roof and was small, damp, and full of vermin, but at any rate it was pleasant to warm ourselves and dry our clothes. When Baki Khanoff had made tea, cooked eggs, and brought out bread and salt, it was almost cosy. The company consisted of four Tatars, two Persians, and myself, and the seven of us had to share the space for the night. When the fire died down the close heat was succeeded by a damp coolness, but at twenty-one years of age one is not particular.

Eventually we reached Teheran, the capital of Persia, safe and sound, and there I stayed a short time as the guest of a fellow-countryman. When I continued my journey southwards I had to travel alone, for Baki Khanoff had caught fever and had to turn back to Baku.

Our journey to Teheran had been very expensive, but my good countryman replenished my purse, so that I had again about £30 sewed up in my waistbelt when I started off once more on April 27. The road is divided by stations where horses are changed and you can pass the night if you wish. A man accompanies you on every stage, and for a small silver coin you can buy eggs and bread, a chicken, melons and grapes.

Sometimes the stable-boy who accompanies a traveller takes the best horse for himself and gives the other to the traveller. This happened to me on the road between the town of Kashan and the mountain village of Kuhrud. As soon as I became aware of the trick, I exchanged horses with my attendant, who dropped behind after some hours' journey, for his sorry jade could go no farther. For four hours I rode along narrow paths in complete darkness. I feared that I had gone astray, and, tired and sleepy, I was on the point of coming to a halt, intending to tie the horse to a tree and roll myself up in my rug for the night, when I saw a light gleam through the darkness. "Hurrah! that is the station-house of Kuhrud." But when I came nearer I perceived that the light came from a nomad's tent. I rode up and called out to the people. No one answered, but I could see by the shadows on the cloth that the tent was inhabited. After shouting again without receiving an answer, I tied up the horse, lifted up the tent-flap, and asked my way to Kuhrud. "Cannot one sleep in peace in the middle of the night?" came a voice from inside. "I am a European and you must show me the way," I returned sharply. Then a man came out; he was as silent as a dummy, but I understood that I was to follow him, leading my horse by the rein. He wound

about in the dark among bushes, and when he had led me to a brook a foot deep, skirted on both sides by thick olive woods, he pointed uphill and vanished in the darkness without saying a word. I mounted again and let the horse take care of himself, and two hours later he stopped all right before the station-house. It was pleasant to have reached my journey's end at last, for I had been riding for fifteen hours, and the evening meal tasted better than usual. Then I lay down full length on the floor, with the saddle for a pillow and the rug over me. I made use of no other bed on this journey.

A few days more on the great caravan road and we rode into the old capital of Persia, Ispahan, with its many memorials of departed greatness, its mosques with tall, graceful minarets, and its bazaars full of the products of Persian handicrafts and industries—carpets, silken materials, embroideries, shawls, lacquered work, water-pipes, porcelain, and bronze vessels representing peacocks and elephants.

Farther south I came to Persepolis, so famous in ancient times, where the great Persian kings, Xerxes and Darius, had their palaces. The country round about is now inhabited only by some poor shepherds and their flocks, but fine remains of the palaces still stand, in spite of the 2400 years which have passed over them. Not far from Persepolis lies one of the most noted towns of Persia, Shiraz, abounding in rose gardens and country-houses, spring water and canals. The town is famous above all, because here the immortal poets of Persia sang their most beautiful songs.

When we came near the Persian Gulf the climate became hotter, and one day the temperature was

102° in the room where I was staying. People therefore travel in the night. On the last stage the groom, who was an old man, could not keep up with me, for I rode fast; so I went on all night alone, keeping my revolver handy in case robbers showed themselves. I was glad when the sun rose, lighting up the smooth mirror of the Persian Gulf, and on May 22 I arrived at the town of Bushire, on its eastern coast.

The Persian Gulf is an inlet of the Indian Ocean, and is enclosed between Persia and Arabia. The island of Bahrein on the Arabian coast is well known; it is under British protection, and here in summer and autumn pearl fishing is carried on, the annual export of these beautiful precious stones being now about £900,000. As many as a thousand boats, with crews of thirty thousand men, are engaged in the industry. The owner of each boat engages a number of divers, who work for him, and he sells his pearls to the Indian markets. The diver seldom goes down to a greater depth than seven fathoms, and remains at most fifty seconds under water. He has wax in his ears, his nose is closed by a clip, and with a stone at his feet and a rope round his waist he jumps overboard and disappears into the depths. When he reaches the bottom of the sea he gathers into a basket tied in front of him as many shells as he can get hold of, and at a given signal is hauled up by the rope to the surface again. Then the owner of the boat opens the shells and takes out the costly pearls, which are of different values, according to their size and other qualities.

Arabia

Between the Persian Gulf on the north-east and the Red Sea on the south-west, the Mediterranean on the north-west and the Indian Ocean on the south-east, lies the long, bulky peninsula which is called Arabia, and is as large as a third of Europe. Most of the coast-land is subject to the Sultan of Turkey, but the people in the interior are practically independent. They are a wild and warlike pastoral people, called Beduins. Only certain parts of the country are inhabited, the rest being occupied by terrible deserts and wastes, where even now no European has set his foot.

Near the coast of the Red Sea are two Arab towns which are as holy and full of memories to Mohammedans all over the world as Jerusalem and Rome to Christians. At Mecca the prophet Mohammed was born in the year A.D. 570, and at Medina he died and was buried in 632. He was the founder of the Mohammedan religion, and his doctrine, Islamism, which he proclaimed to the Arabs, has since spread over so many countries in the Old World that its adherents now number 217 millions.

To all the followers of Islam a pilgrimage to Mecca is a most desirable undertaking. Whoever has once been there may die in peace, and in his lifetime he may attach the honourable title of Hajji to his name. From distant countries in Africa and from the innermost parts of Asia innumerable pilgrims flock annually to the holy towns.

Adjoining Arabia on the north-east lies the country called Mesopotamia, through which flow the rivers Euphrates and Tigris. An English steamer carried me from Bushire up the turbid waters of the Tigris, and

from the deck I could see copper-brown, half-naked Arabs riding barebacked on handsome horses. They feed their flocks of sheep on the steppe, holding long lances in their hands. Sometimes the steamer is invaded by a cloud of green grasshoppers, and one can only escape them by going into one's cabin and closing both door and windows. Round the funnel lie heaps of grasshoppers who have singed themselves or are stupefied by the smoke.

After a voyage of a few days up the river I come to Baghdad, which retains little of its former magnificence. In the eleventh century Baghdad was the greatest city of the Mohammedans, and here were collected the Indian and Arabic tales which are called the *Thousand and one Nights*. Not far from Baghdad, but on the Euphrates, lay in early ages the great and brilliant Babylon, which had a hundred gates of brass. By the waters of Babylon the Jewish captives hung up their harps on the willows, and of Babylon Jeremiah prophesied: "And Babylon shall become heaps, a dwelling place for dragons, an astonishment, and an hissing, without an inhabitant."

Baghdad to Teheran

When I reached Baghdad I had only a little over £5 left, all in Persian silver *kran*, a *kran* being worth about seven-pence; and I could not get any more money until I reached Teheran, 600 miles away. I knew that if I could only get as far as the town of Kermanshah, a distance of 200 miles, I could then take service in a caravan; but it would be unpleasant to tramp on foot the whole way, and receive no pay other than a little bread and a few cucumbers and melons.

Just in the nick of time, however, I made the acquaintance of a caravan owner who was starting immediately for Kermanshah with English merchandise. The goods were loaded on fifty asses, and were accompanied by ten Arab traders on horseback. Eight pilgrims and a Chaldean merchant had joined the party. I, too, might go with them on paying fifty *kran* for the hire of a mule; food and drink I must provide for myself.

It was a pleasant journey which began at ten o'clock on the evening of June 6. Two Arabs led me on my mule slowly and solemnly through the narrow streets of Baghdad in the warm summer night. An oil lamp flickered dully here and there, but the bazaars were brisk and lively. Here sat thousands of Arabs, talking, eating, drinking, and smoking. It was the month of fasting, when nothing is eaten until after sunset.

The two Arabs conducted me into the court of a caravanserai, where the traders were just making preparations to start. When I heard that they would not be ready before two o'clock in the morning, I lay down on a heap of bales and slept like a top.

Two o'clock came much sooner than I wished. An Arab came and shook me, and, half asleep, I mounted my mule. To the shouts of the drivers, the tinkle of the small bells, and the ding-dong of the large camel-bells the long caravan passed out into the darkness. Soon we had the outermost courts and palm groves of Baghdad behind us, and before us the silent, sleeping desert.

No one troubled himself about me; I had paid for the mule and might look after myself. Sometimes I rode in front, sometimes behind, and occasionally I almost went to sleep in the saddle. The body of a dead

dromedary lay on the road, and a pack of hungry jackals and hyænas were feasting on the carcase. When we came near them they ran away noiselessly to the desert, only to return when we were past. Farther on some fat vultures kept watch round the body of a horse, and raised themselves on their heavy wings as we approached.



PLATE IV. A PERSIAN CARAVANSERAI.

After a ride of seven hours we reached a caravanserai, where the Arabs unloaded their animals and said that we were to stay there all day. It was as warm as in an oven, and there was nothing to do but lie and doze on the stone floor.

Next night we rode eight hours to the town of Bakuba, which is surrounded by a wood of fine date-palms. Here we encamped in the court of a huge caravanserai (Plate IV.). I was sitting talking to one of my travelling companions when three Turkish soldiers came and demanded to see my passport. "I have no passport," I replied. "Well, then, pay us ten *kran* apiece, and you shall pass the frontier all the same." "No, I will not pay you a farthing," was the answer they got. "Take that rug and the bag instead," they cried, and made for my things. This I could not stand, and gave the man who seized my bag such a blow on the chest that he dropped his booty, and the same with the man with the rug. The scoundrels were making to rush at me together, when two of my

Arabs came up to my assistance. To avoid further unpleasantness I went to the governor, who for six *kran* gave me a passport.

I had now become so friendly with the Arabs that I obtained the loan of a horse instead of a mule. We set out again at nine o'clock, and rode all night in the most brilliant moonshine. I was so sleepy that sometimes I dozed in the saddle, and once, when the horse shied at a skeleton on the road, I was roused up and fell off, while the horse ran off over the steppe. After much trouble one of the caravan men caught him again, and I slept no more that night.

As usual we stayed over the day at the next village. I was tired of travelling in this fashion, moving so slowly and seeing so little of the country. When, then, an old Arab belonging to the caravan came riding up from Baghdad on a fine Arab horse, I determined to try to get away from my party with his assistance. He consented to accompany me if I paid him twenty-five *kran* a day. At first we kept near the caravan, but as soon as the moon had set we increased our pace, and when the sound of the bells grew faint behind us we trotted off quickly through the night.

We arrived safely at Kermanshah on June 13. After paying the old Arab I had only sixpence left! I could not engage a room or buy anything to eat, and the prospect of going begging among Mohammedans was certainly not attractive. Fortunately I had heard of a rich Arab merchant, Agha Hassan, who lived in this town, and I directed my steps to his handsome house. In my dusty riding-boots, and whip in hand, I passed through many fine rooms until at last I found myself in the presence of Agha Hassan, who was

sitting with his secretary in the midst of books and papers. He wore a white silk mantle embroidered with gold, a turban on his head and spectacles on his nose, and looked both friendly and dignified.

"How are you, sir?" he asked. "Very well, thank you," I responded. "Where have you come from?" "From Baghdad." "And where are you going?" "To Teheran." "Are you an Englishman?" "No, I am a Swede." "Swede? What is that?" "Well, I come from a country called Sweden." "Whereabouts does it lie?" "Far away to the north-west, beyond Russia." "Ah, wait, I know! You are no doubt from Ironhead's country?" "Yes, I am from the country of Charles XII." "I am very glad to hear it; I have read of Charles the Twelfth's remarkable exploits; you must tell me about him. And you must tell me about Sweden, its king and army, and about your own home, whether your parents are still living, and if you have any sisters. But first you must promise to stay as my guest for six months. All that I have is yours. You have only to command." "Sir, I am very thankful for your kindness, but I cannot avail myself of your hospitality for more than three days." "You surely mean three weeks?" "No, you are too good, but I must go back to Teheran." "That is very tiresome, but, however, you can think it over."

A servant conducted me to an adjoining building, which was to be mine during my stay, and where I made myself at home in a large apartment with Persian rugs and black silk divans. Two secretaries were placed at my disposal, and servants to carry out my slightest wish. If I desired to eat, they would bring in a piece of excellent mutton on a spit, a chicken boiled with rice, sour milk, cheese and bread, apricots, grapes, and melons, and at the end

of the meal coffee and a water-pipe; if I wished to drink, a sweet liquor of iced date-juice was served; and if I thought of taking a ride in order to see the town and neighbourhood, pure-blooded Arab horses stood in the court awaiting me.

Before the house lay a peaceful garden surrounded by a wall, and with its paths laid with marble slabs. Here lilacs blossomed, and here I could dream the whole day away amidst the perfume of roses. Gold-fishes swam in a basin of crystal-clear water, and a tiny jet shot up into the air glittering like a spider's web in the sunshine. I slept in this enchanting garden at night, and when I awoke in the morning I could hardly believe that all was real; it was so like an adventure from the *Thousand and one Nights*. My rich host and my secretaries did not suspect that I had only sixpence in my pocket.

When the last day came I could no longer conceal my destitute condition. "I have something unpleasant to confide to you," I said to one of the secretaries. "Indeed," he answered, looking very astonished. "Yes, my money has come to an end. My journey has been longer than I expected, and now I am quite cleared out." "What does that matter? You can get as much money as you like from Agha Hassan."

It had struck midnight when I went to take farewell of my kind host. He worked all night during the fasting month. "I am sorry that you cannot stay longer," he said. "Yes, I too am sorry that I must leave you, and that I can never repay your great kindness to me." "You know that the road through the hills is unsafe owing to robbers and footpads. I have therefore arranged that you shall accompany the post, which is escorted by three soldiers."

Having thanked him once more, I took my leave. A secretary handed me a leather purse full of silver. The post rider and the soldiers were ready; we mounted, rode slowly through the dark, narrow streets of the town, at a smart trot when the houses were scattered, and then at full gallop when the desert stretched around us on all sides. We rode 105 miles in sixteen hours, with three relays of horses and barely an hour's rest. We stayed a day at Hamadan, and then rode on to the capital, with nine relays of fresh horses. During the last fifty-five hours I never went to sleep, but often dozed in the saddle. At length the domes of Teheran, its poplars and plane-trees, stood out against the morning sky, and, half-dead with weariness, and ragged and torn, I rode through the south-western gate of the city.

FOOTNOTES:

[7] At the time of this journey, the railway ended at Vladikavkas. Since then, however, it has been extended to Baku along the northern side of the Caucasus and the coast of the Caspian (see map, p. 30).

IV

THE PERSIAN DESERT (1906)

Across the Kevir

We must now resume the journey to India. You will remember (see p. 33) that after arriving at Teheran from Trebizond I made up a caravan consisting of six Persians, one Tatar, and fourteen camels. On January 1 everything is ready. The camels are all laden; thick rugs cover their backs to prevent them being rubbed sore by the loads, and the humps stick up through two round holes in the cloths in order that they may not be crushed and injured.

The largest camels go first. Each has its head adorned with a red embroidered headstall, studded with shining plates of metal and red and yellow pompons, and a plume waves above its forehead. Round the chest is a row of brass sleigh-bells, and one large bell hangs round the neck. Two of these bells are like small church bells; they are so big that the camels would knock their knees against them if they were hung in the usual way, so they are fastened instead to the outer sides of a couple of boxes on the top of the loads. The camels are proud of being decked so finely; they are conscious of their own importance, and stalk with majestic, measured strides through the southern gate of Teheran.



PLATE V. THE AUTHOR'S RIDING CAMEL, WITH GULAM HUSSEIN.

My riding camel is the largest in the caravan (Plate V.). He has thick brown wool, unusually long and plentiful on his neck and chest. His loads form a small platform between the humps and along his flanks, with a hollow in the middle, where I sit as in an armchair, with a leg on each side of the front hump. From there I can spy out the land, and with the help of a compass put down on my map everything I see—hills, sandy zones, and large ravines. Camels put out the two left legs at the same time, and then the two right legs. Their gait is therefore rolling, and the rider sits as in a small boat pitching and tossing in a broken sea. Some people become sea-sick from sitting all day bobbing between the humps, but one soon becomes accustomed to the motion. When the animal is standing up it is, of course, impossible to mount on his back without a ladder, so he has to lie down to let me get on him. But sometimes it happens that he is in too great a hurry to rise before I am settled in my place, and

then I am flung back on to my head, for he lifts himself as quickly as a steel spring, first with the hind legs and then with the fore. But when I am up I am quite at home. Sometimes, on the march, the camel turns his long neck and lays his shaggy head on my knee. I pat his nose and stroke him over the eyes. It is impossible to be other than good friends with an animal which carries you ten hours a day for several months. In the morning he comes up to my tent, pushes his nose under the door-flap, and thrusts his shaggy head into the tent, which is not large, and is almost filled up when he comes on a visit. After he has been given a piece of bread he backs out again and goes away to graze.

The ring of bells is continually in my ears. The large bells beat in time with the steps of the camels. Their strides are long and slow, and a caravan seldom travels more than twenty miles in a day.

Our road runs south-eastwards. We have soon left behind us the districts at the foot of the Elburz Mountains, where irrigation canals from rivers are able to produce beautiful gardens and fruitful fields. The farther we proceed the smaller and more scattered are the villages. Only along their canals is the soil clothed with verdure, and we have scarcely left a village before we are out on the greyish-yellow desert, where withered steppe shrubs stand at wide intervals apart. Less and less frequently do we meet trains of asses bound for Teheran with great bundles of shrubs and bushes from the steppe to be used as fuel. The animals are small and miserable, and are nearly hidden by their loads. Their nostrils are cruelly pierced, so that they may be made to go quicker and keep up longer. They look sleepy and dejected, these small, obstinate donkeys which never

move out of the way. Their long ears flap backwards and forwards, and their under-lips hang down like bags.

At the very last village on the edge of the desert we stay two days to prepare ourselves for the dangers ahead of us. The headman of the village owns ten camels, which he will gladly hire us for a few days; they are to carry trusses of straw and water in leathern bags. Our own camels are already fully laden, and the hired camels are only to give us a start. When they turn back we shall have to shift for ourselves.

After we have left this village not a sign of life is visible. Before us to the south-east small isolated hills stand up like islands in the sea, and beyond them the horizon of the desert lies as level as that of the ocean. Through this great sandy waste the caravans travel from oasis to oasis, but in the north there is a tract, called the Kevir, within which not the smallest oasis can be found. Not a clump of grass, not even a blade, is to be seen, for the desert is saturated with salt, and when it rains in winter the briny clay becomes as slippery as ice. And this is precisely the place we are making for.

We travelled a whole month before we came to the point where we intended to make the attempt to cross the Kevir. Hitherto everything had continued in a steady course, and one day had been like another. It was winter and we had fully 25 degrees of frost in the night: one day it snowed so thickly that the foremost camels in the train were seen only as faint shadows. For several days mist lay so dense over the desert that we had to trust chiefly to the compass. Sometimes we travelled for four or five days without

finding a drop of water, but we had all we needed in our leathern bags.

At the edge of the sandy desert, where high dunes are piled up by the wind, tamarisks and saxauls were often growing. Both are steppe bushes which grow to a height of several feet; their stems are hard and provided us with excellent fuel. My servants gathered large faggots, and the camp fires flamed up brightly and grandly, throwing a yellow light over the silent waste.

From a village called Jandak I set out with only two men and four camels, but we had to wait for four days on the edge of the salt desert because of rain. When rain falls in the Kevir the whole desert soon becomes a sea of slippery mud, and camels cannot walk without slipping and falling. Whole caravans have perished in this cruel desert by being overtaken by rain, and in many other cases the men only have managed to escape with the loss of their camels and their merchandise. It was therefore fortunate for us that we were overtaken by rain before we were out on the slippery clay. We waited till the desert had dried up again, and then we joined forces with a caravan which came from the south.

It was pitch dark when we began to move. A fire was set going, and the camels were laden by its light. Then we started, the fire disappeared, and night and the desert lay before us. Only the ring of bells disturbed the silence. We could not see where we were going, but had to trust our riding camels. The Persians marched all the morning and most of the day without a halt; the strength of both men and camels is strained to the uttermost in order to get through the desert before the next rain comes—and

it may come at any moment.

After a short rest we hasten northwards again, for there is no question of halting for the night. The darkness seems interminable, but at length it begins to grow light again. Still the Persians do not stop, so there is nothing for me to do but to struggle to keep up with them. "Keep awake, sir!" shouts Gulam Hussein; "you can sleep when we get to the other side." Another day passes, and again we rest awhile to give the camels some straw and to drink a cup of tea ourselves. Scarcely have we begun to enjoy the rest, however, when the chimes of the bells ring out again. The caravan is already on the move, so we pack up and follow in its trail.

The sky seems very unpromising, and is clouded all over. The desert is as level as a floor; not a mound as high as a kneeling camel. The sun sinks in the west. Like a red-hot cannon-ball it shines through a rift between dark clouds, and a shaft of dazzling red rays streams over the desert, the surface of which shines like a purple sea. To the north the sky is of a dark violet colour, and against this background the camels stand out brick-red.

The sun sets, the colours grow pale, and the long shadows which the camels lately cast far away over the ground fade away. Another night rises up from the east. It grows darker and darker, the caravan is lost to view, but the bells ring out with a clear resonance. On we go without stop or rest. This night is more trying, for we had not a wink of sleep the night before.

The clouds break in the zenith, and the moon looks down on our progress. The camels are seen again and shadows fall again over the desert. Here it is as bare

and desolate as on the face of the moon.

At midnight the sky becomes dark once more. The Persians have clambered up on to their camels, and the swaying motion soon carries them into the land of dreams. Soon no one is awake but the leader, who guides the first camel, and myself, who am riding on the last. Suddenly heavy drops begin to fall, and in a minute the rain pelts down on camels, loads, and sleepers.

In a second the pace of the caravan is changed. Hear how hurriedly and anxiously the bells swing and beat! They peal as if to awaken soldiers and citizens in a burning town. Now the rain patters down on the level desert and the camels begin to slip. We must hasten if our lives are dear to us, or the desert will suck us in at the eleventh hour. The men shout to urge on the camels. Now the bells clang as though to wake up the dead to judgment.

There goes a camel down in the mire. Poor animals, they are lost on such ground, for they have not hoofs like horses, but soft callous pads. When they slip they do so thoroughly and suddenly. All four legs fly up in one direction, and the heavy body with the loads thumps down in the other. It is bad enough for the camel, but still worse for his rider. A moment before he sat so well packed up, longing for the edge of the desert sea, and now he lies sprawling in the slush.

One after another the camels fall and have to be helped up again. All this causes delay, and meanwhile the clay is gradually becoming softer. At every step the camels sink in deeper, the rain still pelts down, and the bells ring jerkily. If they cease to ring, it will be because the desert has conquered; at

this very moment they stop.

"What is the matter?" I call out.

"We are at the Devil's ditch," answers a voice in the darkness.

The bells ring slowly again as the camels wade one after the other through a trench full of salt water. I tighten my knees when my turn comes. I cannot see the water, but I hear it spurting and splashing round the legs of the camels in front of me. Now my camel slides down a nasty mud bank. He slithers and wriggles about to keep himself up, and then he, too, tramps through the water and scrambles up the other side.

"Tamarisks," I hear some one shout. Welcome sound! It means that we are safe, for nothing grows in the salt desert. When we come to the first tamarisks we are again on sandy ground. Then all danger is past, and what does it matter if we are dead tired? Two more hours and we reach a village. There Gulam Hussein makes ready a chicken and some eggs, and then I lie down in a hut and sleep as I have never slept before.

The Oasis of Tebbes

Any one who has not travelled himself for weeks together through the desert can scarcely conceive what it is to come at length to an oasis. An oasis is to the desert wanderer what a peaceful island with its sheltered anchorage is to mariners. Oases are like stars in the dark vault of heaven, like moments of happiness and prosperity in a man's life. If you had roamed for two months in the wilderness, like myself

and my Persians, you would be able to understand our feelings when we at last saw the date-palms of Tebbes beckoning to us in the distance (see map, p. 73).



PLATE VI. TEBBES.
The tree in the foreground is a huge tamarisk.

A lofty minaret rises above the little town, which is surrounded by a wall (Plate VI.). Within are old buildings, mosques, and a fort with towers. Outside the town are tilled fields and palm groves.

Spring had come when we pitched our tents on a meadow in the shade of thick dark-green palms. There was a rustle and pleasant whisper among the hard fronds when the spring storms swept over the country. We were tired of the everlasting dull yellow tint of the desert and were delighted with the fresh verdure. Outside my tent purled a brook of fine cool water, all the more agreeable after the intense drought of the desert. A nightingale sang in the crown of the palm above my tent. He plays an

important part in Persian poetry under the name of *bulbul*.

If you were in some mysterious manner transferred to Tebbes, you would on the very first evening wonder what was the curious serenade which you heard from the desert. If you sat at the fall of day reading at the door of your tent, you would look up from your book and listen. You would have an uneasy feeling and be uncomfortable at being alone in the tent. But after the same serenade had been repeated every evening as regular as the sunset, you would become accustomed to it, and at length trouble yourself no more about it.

It is only the jackals singing their evening song. The word "jackal" is Persian, and the jackal is allied to the dog, the wolf, and the fox. He is a beast of prey and seeks his food at night. He is not large, is yellowish-grey in colour, has pointed ears and small, keen eyes, and holds his tail erect, not hanging down like the wolf's. Nothing edible comes amiss to him, but he prefers chickens and grapes to fallen caravan animals. If he can find nothing else, he steals dates in the palm gardens, especially when ripe fruits have fallen after heavy storms. The jackal is, indeed, a shameless, impudent little rascal. One night a pack of jackals sneaked into our garden and carried off our only cock under the very noses of the dogs. We were awakened by the noise of a terrible struggle between the two forces, but the jackals got the better of it and we heard the despairing cackle of the cock dying away in the desert.

Heaven knows where the jackals remain as long as the sun is up! In zoological text-books it is stated that they dwell in holes, but I could see no holes round

Tebbes, and yet jackals come in troops to the oasis every night. They are as mysterious as the desert; they are found everywhere and nowhere.

As soon as the sun sinks below the horizon and the darkness spreads its veil over the silent desert, and the palms doze off, waiting for the return of the sun, then begins the jackals' serenade. It sounds like a short, sharp laugh rising and falling, a plaintive whine increasing in strength and dying away again, answered by another pack in another direction; a united cry of anguish from children in trouble and calling for help. They say to one another, "Comrades, we are hungry, let us seek about for food," and gather together from their unknown lairs. Then they steal cautiously to the skirts of the oasis, hop over walls and bars and thieve on forbidden ground.

These insignificant noisy footpads live on the refuse and offal of the desert from Cape Verde in the uttermost west of the Old World to the interior of India; but their home is not in the silent desert alone. When the military bands strike up at the clubs in Simla, you have only to put your head out of the window to hear the mournful, piteous, and distressed howl of the jackals.

They are not always to be treated lightly, for in 1882 jackals killed 359 men in Bengal alone. Especially are they a terrible danger when hydrophobia rages among them, as the experiences of the last Boundary Commission in Seistan showed. A mad jackal sneaked into the camp one night and bit a sleeping man in the face. Within six weeks the man was dead. Others stole into the natives' huts and lay in ambush, waiting for an opportunity to bite. Perhaps the worst incident occurred on a dark winter's night, when a

north wind was raging and sweeping the dust along the ground. A mad jackal came into the Englishmen's camp and crept into a tent where several men were sleeping. Fortunately he only set his teeth in a felt rug. This wakened the sleepers, however, and they at once started up and looked for weapons. The camp consisted of three sections, and more than a hundred tethered camels. In the pitchy darkness it was impossible to see where the jackal went, but the camels could be heard shrieking with fear, and thus it was only too clear where the brute was. When day broke seventy-eight bitten dromedaries were counted. They were isolated from the others, and killed as soon as they showed signs of sickness, while the dogs and goats which had been bitten by the jackal were shot at once.

Twenty years ago I myself had a little adventure with jackals. I was riding with a couple of servants and some horses to the Caspian shore from the interior of Persia, and encamped one evening at a village in the Elburz Mountains. The caravanserai was notorious for its vermin, so I preferred to make myself comfortable in a garden with fruit trees and poplars, protected by a wall five feet high and without any gates. We had to climb over the wall in order to get in. I had a saddle for a pillow and lay wrapped in a felt rug and a cloak. The remains of my supper, bread, honey, and apples, stood on my two small leather trunks. When it grew dark my men went off to the village and I rolled myself up and went to sleep.

Two hours later I was awakened by a scratching noise at the trunks and sat up to listen, but could hear nothing but the murmur of a small brook close at hand. The darkness was intense, only a little

starlight passing faintly through the foliage. So I went to sleep again. A little later I was roused once more by the same noise, and heard a tearing and tugging at the straps. Then I jumped up and distinguished half a dozen jackals disappearing like shadows among the poplars. There was no more sleep for me that night. It was all I could do to keep the importunate beasts at a distance. If I kept quiet for a minute they were up again, tearing the leathern straps, and would not make off until I struck a box with my riding whip. They soon became accustomed even to this and drew back only a few steps. Then I remembered the apples, and as soon as the jackals crept up again, I threw one of them with all my strength into the ruck, and used them as missiles till the last apple had disappeared into the darkness. Most of my shots were misses, for I only once heard a howl from one of the impudent animals.

The night seemed endless, but at length the day dawned between the poplars, and the jackals jumped quietly over the wall. Then I should have liked some breakfast, but there was not a bit of the supper left; the jackals had taken it all. However, I had a sound sleep instead. I heard afterwards that the jackals in that country are so vicious that two or three of them will attack a man, so in future I always had my servants sleeping near me.

While speaking of jackals we must not forget the hyæna, for this animal is one of the denizens of the desert, though it is of another genus. The hyæna is a singular animal, neither dog nor cat, but a mixture of both and larger than either. It is of a dirty greyish-brown colour with black stripes or patches, has a rounded head with black muzzle and eyes, and short hind legs, so that the bristly back slopes downwards.

It prowls about for food at night, and in western Persia comes down from its hiding-places in the mountains to the caravan roads in quest of fallen asses, horses and camels. If corpses are not buried deep enough it scratches them up from beneath the tombstones, for it lives almost exclusively on dead and corrupted flesh.

Thus the four-footed inhabitants of the desert prowl around the outskirts of Tebbes and share the country with panthers, wild asses and graceful elegant gazelles. Tebbes itself lies lonely and forgotten like an island in the ocean.

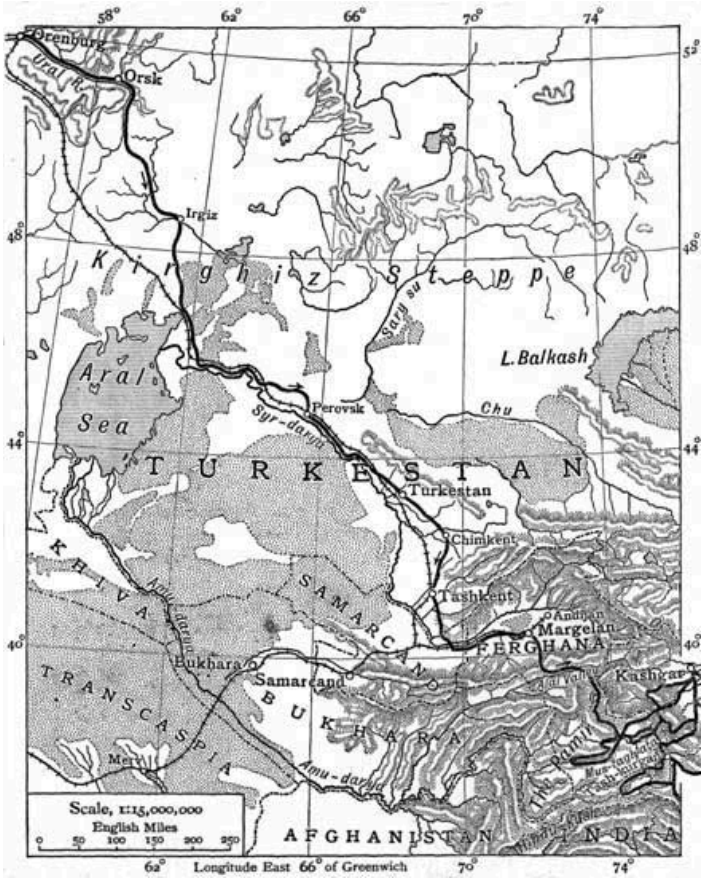
The principal caravan road connecting the oasis with the outer world runs north-eastwards to the holy town of Meshed, whither many pilgrims flock. From Meshed it is only a few days' journey through a mountainous tract to the frontier between Persia and Russian Asia. There lie Transcaspia, Samarcand, Bukhara, Turkestan, and the Kirghiz Steppe. This road would take us out of our way to India, but while we halt at Tebbes I can tell you something about the country it passes through.

V

ON THE KIRGHIZ STEPPE (1893-5)

Into Asia from Orenburg

I started my journey across the Kirghiz Steppe in November, 1893, from Orenburg on the Ural River, which for some distance forms the boundary between Asia and Europe. I travelled in a stout *tarantass*, the common means of conveyance on Russian country roads; it consists of a sort of a box on two bars between the wheel axles, with a hood but no seat. The bottom is filled with hay, on which are spread a mat, cushions and pillows, furs and felt rugs, for the cold is intense. There are ninety-nine stages and changes of horses between Orenburg and Tashkent, the capital of Russian Turkestan. At the post-houses nothing can be got but tea, so provisions for nineteen days had to be taken with us, as well as sawn wood, rope and tools in case anything should break, and a large pot of cart-grease to keep the wheels cool. My boxes and trunks are wrapped in bast-matting and secured with strong ropes to the driver's box and behind the *tarantass*. It takes time to get everything ready, and it is late in the afternoon before the first team of three post-horses is led out and harnessed to the vehicle. I take my largest fur coat and pack myself in among the cushions and felt rugs. The carriage is open in front and the whirling snow which sweeps round the corners flies straight into my face. The driver takes his seat on the box, shouts shrilly and cracks his whip, and we dash along the streets of Orenburg in the snow and twilight to the lively jingle of the bells.



MAP SHOWING JOURNEY FROM ORENBURG TO THE PAMIR (pp. 55-71).

The lights come to an end and the night is intensely dark when we come out to the high-road leading into Asia. The bells worn by the middle horse on a necklace round his neck ring in frequent beats. This horse always goes at a trot, being harnessed between the shafts with a high wooden arch above his neck, but the two outside horses go at a canter. The horses

are accustomed to this pace and action, and a rapidly moving team is a fine sight. After three hours a yellow light is seen through the swirling snow, and the team dashes into a yard and comes to a halt at the steps of a house. As I have been already tossed about a good deal, I am glad to jump out and get a glass of tea. The horses are taken into the stable, and a fresh team is led out to take their place in the still warm harness.

The *samovar*, or Russian tea-urn, is boiling in the great room. While I am drinking my first glass of tea the stamping and rattle is heard of two other teams which roll into the yard. It is the post; and the courier enters covered with snow and with icicles on his beard. He is a good fellow, and we become acquainted at once and travel together to Orsk. He has travelled for twenty years with the mails between the two towns and must have covered altogether a distance as far as from the earth to the moon and six thousand miles besides.

My new driver now appears and calls out "The *troika*[8] is ready." Then I pack myself in again among the cushions and rugs and off we speed once more through the darkness and snow.

After forty-eight hours we are in Orsk, which also stands on the Ural River; and when we leave this town with fresh horses and steer southwards we are on Asiatic ground, in the vast Kirghiz Steppe, which extends from Irkutsk to the Caspian Sea, from the Ural River to the Syr-darya.[9] It is extremely flat and looks like a frozen sea. Day after day we drive southwards, the horses ready to run away; there is nothing to drive over, no ditches to fall into, no stones to carry away a wheel. The hoofs hammer on

the hard ground, the wheels creak, I and my things are shaken and thrown about in the carriage, the coachman plants his feet firmly against the foot-board lest he should tumble off, and on we go over the flat dreary steppe. As we drive on day and night the *tarantass* seems always to be in the centre of the same unbroken landscape, always at the same distance from the horizon.

Here live the Kirghizes, a fine race of graziers and horsemen. They support themselves by their large flocks of sheep, and also own numerous horses and camels, as well as cattle. Therefore they are dependent on the grass of the steppe, and wander like other nomads from pasture to pasture. When their flocks have eaten up the grass at one place, they roll up their black tents, pack all their belongings on camels and migrate to another spot. They are a freeborn, manly people and love the boundless steppe. Life in the open air and on the level country, which affords grazing to their flocks, has sharpened their intellect to a wonderful degree. They never forget a place they have once seen. If the steppe plants grow closer or thinner, if the ground shows the slightest inequality, if there is grey or black gravel of different coarseness—all these details serve as marks of recognition. When we rest a minute halfway between two post-houses to let the horses breathe, the Kirghiz driver turns round and says, "Yonder rides a Kirghiz on a dappled mare." Yet on directing my field-glass towards the indicated spot, I can only see a small dot, and cannot distinguish what it is.

The stations on our road are usually small solid wooden houses with two lamp-posts at the door and a white board, on which are written the distances to

the next stations in each direction. In some places there is no house at all but only a black Kirghiz tent, and instead of a stable fences of sticks and reeds afford the horses shelter. At one such station three camels are harnessed to the *tarantass*, and the clumsy animals waddle along so that their humps bob and roll on their backs. The reason for this change is that we are now on the shore of the Sea of Aral, where the soft yielding drifts make it impossible for horses to draw the *tarantass*. The two rivers, the Syr-darya (or Jaxartes) and the Amu-darya (or Oxus), which rise in the Pamir, flow into the Sea of Aral. The Cossacks carry on a profitable sturgeon fishery in this lake, which in area is not very much smaller than Scotland, and contains a great number of small islands—whence its name, for the word *aral* means "island."

With fresh horses we speed along the bank of the Syr-darya. Here grow small woods and thickets where tigers stalk their prey, and in the dense reed beds wild boars dig up roots. The shy gazelles like the open country, hares spring over the shrubs, ducks and geese quack on the banks, and flocks of pheasants lure the traveller to sport. The setting sun sheds a gleam of fiery red over the steppe, and as it grows dim the stars begin to twinkle. The monotonous ring of the bells and the shouts of the driver never cease, whether we are near the river or far off in the dreary steppe. The ground becomes soft and swampy. The wheels cut like knives into the mud. We move more and more slowly and heavily, and at last stick fast in the mire. The driver shouts and scolds, and cracks his whip over the team. The middle horse rears, one of the outside horses jibs and the other gathers himself together for a spring which makes the traces break with a loud report. Then the

driver jumps down and says, "You must wait here, sir, while I ride back for two more horses." And he trots off in the darkness. After waiting about two hours I hear the tramp of horses in the distance. Now the team is made ready, the two extra horses are attached in front, the coachman takes his place on the box, and with united strength our animals drag the heavy vehicle up out of the slough. We roll and jolt on again with lumps of wet clay dropping and splashing round the wheels.

Samarcand and Bukhara

Russian Central Asia has ten million inhabitants and an area twelve times as large as the British Isles. The part which is called Turkestan extends between Eastern Turkestan and the Caspian Sea, the Kirghiz Steppe, Afghanistan, and Persia. The greater part is occupied by blown sand, the "Red Sand" and the "Black Sand." Right through the desert flow the two rivers, the Syr-darya and Amu-darya. Two railway lines cross Turkestan, one from the Kirghiz Steppe to Tashkent, the other from the Caspian Sea to Tashkent and Ferghana. Ferghana is the most fruitful part of Turkestan and lies between mountains in its eastern portion.

Tashkent, the capital of Turkestan, has 200,000 inhabitants, and is the headquarters of the governor-general. South-west of Tashkent is the district of Samarcand, with a capital of the same name. South-west of Samarcand again, on the north of the Amu-darya, stretches a country called Bukhara, ruled by an Emir, a prince under the supremacy of Russia.

Close to the Caspian Sea, on the east, there is a large area of country called Transcaspia. Central Asia was

conquered by Russia forty-five years ago, Transcaspia thirty years ago. Transcaspia is inhabited by Turkomans, a powerful and warlike people, who in former times used to make raids into northern Persia, carrying off men and women, whom they sold as slaves in the markets of Bukhara and Samarcand. General Skobeleff put a check to their domination when he invaded the country in 1880. In order to convey troops and war material into the country a railway was laid down through the desert. It runs from one oasis to another, and hardy desert shrubs were planted or upright palings erected to protect the line from the drifting sand.

When the Turkomans were attacked by the Russians, they withdrew within the walls of the large fortress which is called "The Green Hill." They numbered about 45,000 in all—men, women and children—and they believed that the fortress was impregnable. The Russian general, Skobeleff, had a mine carried under the wall. Inside the fortress the Turkomans heard the soldiers working underground with picks and crowbars, but did not understand what was intended. They supposed that the soldiers would crawl up out of a hole one after another and therefore they assembled with shining weapons above the place of danger. Consequently when the mine exploded a large number of unfortunates were killed, and the enemy stormed in over the ruins of the wall.

A fearful massacre followed of all those who did not seek safety in flight. The Persian slaves and some thousands of women were spared. Twenty thousand bodies lay in heaps within and without the fortress. The Turkomans will never forget that day. The cavalry band played at the head of the columns during the fight. Old Turkomans still remember the

strains. They cannot hear regimental bands without weeping for some relative who fell at "The Green Hill." Here was the death-bed of their freedom and they were swallowed up by mighty Russia.

I have crossed Turkestan many times by rail, in *tarantass*, and on horseback. I have strolled for weeks through the narrow picturesque streets and the gloomy bazaars of the old town called Bukhara, the "Blessed." There silk is produced and carpets are woven; great caravans pass by laden with cotton; disfigured by sores, lepers sit begging in front of the mosques; mulberry trees raise their crowns above artificial ponds. From the summit of a tall minaret criminals used to be thrown down to be dashed to pieces on the street.

Sixty years ago there ruled in Bukhara a cruel Emir who took a delight in torturing human beings. A mechanician from Italy fell into his clutches and was sentenced to death. The Italian promised that if his life were spared he would construct a machine wherewith the Emir could measure the flight of time. His prayer was granted and he made an ordinary clock. This called forth the Emir's astonishment and admiration, and the Italian lived in high favour for a time. Later on, however, the tyrant wished to force him to embrace Islamism, but he steadfastly refused. At that time there was in Bukhara a cave called "the bugs' hole," and into this the unfortunate man was thrown to be eaten up by vermin. Seventy years ago two Englishmen languished in this abominable place.

There are towns in Asia with names which impress us as soon as we hear them, like Jerusalem, Mecca, Benares, Lhasa. Samarcand is one of these. It is not a place of pilgrimage, but it is an ancient town and

famous among the Mohammedans of Asia. It was already in existence when Alexander the Great conquered Central Asia. Since then vast swarms of men and migrations of peoples have swept over this region. The Arabs have subdued it, countless hordes of Mongols have passed through it pillaging and devastating, and now at last it lies under the sceptre of the Tsar. Samarcand attained the height of its splendour during the rule of the powerful Timur. When he died in the year 1405 he had conquered all Central Asia, Persia, Mesopotamia, South Russia, Turkey, India and many other countries. This Timur the Lame was not only a great general but a man of culture, for he loved art and science, and listened willingly to the songs of the poets. He built his own mausoleum, which still rears its melon-shaped dome above Samarcand, and had carved in raised letters on a marble tablet the words: "If I still lived, mankind would tremble."

Timur had a wife, Bibi, whom he dearly loved. She expressed a wish that her coffin should not be buried but should remain above ground, and therefore Timur caused to be erected the handsome mosque-tomb which still bears her name. When it was finished the Queen went, attended by her slaves, to inspect her last resting-place. A poisonous snake crept from under an arch. Those present wished to kill it, but the Queen forbade them and caressed the snake, which offered her no harm. When at length she died she was decked with all her jewels—costly pearls, necklaces, and gold bangles—and her coffin was placed in the vault. One night thieves broke into the tomb, opened the coffin and took all the Queen's ornaments; but when they were sneaking off with their booty the snake crept out and bit them so that they died immediately.

The great market-place of Samarcand is one of the finest squares I have seen in Asia. There carts and caravans swarm, there fruit sellers and pitcher-makers take their stand, there dancing dervishes beg for alms. On all four sides stand stately buildings erected by Timur and his successors. Their façades, cupolas and minarets are covered with blue faïence, burned and glazed tiles in varied patterns and texts from the holy book of Islam, the Koran. It is worth while to ascend one of the lofty minarets to take a look over Samarcand. Hence we see innumerable gray mud houses with courts in the centre, pools, canals and gardens, and in the maze of streets, squares and lanes moves a stream of people of Turkish and Persian race. The dark-blue cupolas stand out against the light-blue sky, and are surrounded by luxuriant dark-green vegetation. In autumn the gardens assume a bright yellow tint. In winter the whole country is often buried in snow, and only the bright blue cupolas rise above the whiteness. Samarcand is the "blue" town, just as Jaipur in India is the "pink" town.

The Pamir

To the south-east of Samarcand stand the huge highlands of the Pamir, called by its inhabitants the "Roof of the World," for it seems to them to rise like a roof above all the rest of the earth. From this great centre run the lofty mountain ranges of the earth, the Himalayas, the Trans-himalaya, Karakorum, Kuen-lun, and the Tien-shan on the east, the Hindu-Kush on the west. If you examine the map you will see that most of the ranges of Asia and Europe, and the most important, are connected with it. The Tibetan ranges extend far into China and beyond the Indian

peninsula. The Tien-shan is only the first link in a series of mountains which stretch north-eastwards throughout Asia. The continuation of the Hindu-Kush is found in the mountains of northern Persia, in the Caucasus and the chains of Asia Minor, the Balkan Peninsula, the Alps and Pyrenees. The Pamir is like the body of a cuttlefish, which throws out arms in all directions. The Pamir and all the huge mountain ranges which have their roots in this ganglion are the skeleton of Asia, the framework round which the lowlands cling like masses of muscle. Rivers, streams, brooks, and rivulets, are the arteries and capillaries of the Asiatic body. The deserts of the interior are the sickly consumptive parts of the body where vitality is low, while the peninsulas are the limbs which facilitate communication between different peoples across the intervening seas.

In the month of February, 1894, I was at Margelan, which is the capital of Ferghana, the granary of Central Asia, a rich and fruitful valley begirt on all sides by mountains. I had got together a small reliable caravan of eleven horses and three men, one of them being Islam Bay, who was afterwards to serve me faithfully for many years. We did not need to take tents with us, for the Governor gave orders to the Kirghizes, to set up two of their black felt tents wherever I wished to pass the night. We had a good supply of provisions in our boxes, straw and barley in sacks, and steel spades, axes, and alpenstocks, for we had to travel through deep snow, and over smooth, slippery ice. We forgot to procure a dog, but one came to us on the way, begging to be allowed to follow us.

We march southwards up on to the Pamir, following a narrow valley where a foaming stream tumbles

over ice-draped boulders. We cross it by narrow, shaking bridges of timber which look like matches when we gaze down on them in the valley bottom from the slopes above. It thaws in the sun, but freezes at night, and our path is like a channel of ice running along the edge of a vertical precipice. We have several Kirghizes with us to give assistance. One of them leads the first horse, which carries two large sacks of straw with my tent bed between them. The horse is shod and can keep his feet on ice, but at one place the path slopes to the edge. The horse stumbles, tries in vain to recover his foothold, rolls over the edge, falls into the chasm, and breaks his back on the bank of the river. The straw is scattered among the stones, my bed dances along the stream, and all the men rush down to save what they can.

Now steps are cut in the ice and the path is strewn with sand. The higher we go the worse the travelling. A Kirghiz leads each horse by the bridle, while another holds on to his tail to help him if he stumbles. To ride is impossible; we crawl along on hands and feet. Darkness follows twilight; the rushing water of the stream gives forth a sound of metallic clearness. We have been travelling more than twelve hours when at last the valley opens, and we see blazing camp fires in front of Kirghiz tents.

We mount higher day after day. We cross a pass, and at this giddy height I experience the unpleasant feelings of mountain sickness—splitting headache, nausea, and singing in the ears. On the further side one of the affluents of the Amu-darya flows westwards. This valley, the Alai, is broad and open, but full of snow in winter. We make our entry into the Alai valley in a howling snowstorm and wade and plunge through drifts. Two Kirghizes go in front

with sticks to mark out the way, in order that the horses may not sink in the snow. Our little caravan moves slowly and painfully. One day the snow is so deep that we have to hire four camels, which are led in front of the caravan to tramp out a narrow path for the horses. Everything is white, sky and earth run into one another, and there is nothing black to be seen but the men, camels, and horses.

At every camp we find excellent felt tents set up in readiness for us. Once we had only a short distance to go before reaching camp when we were stopped by a trench filled with snow ten feet deep. The first horse disappeared in a moment as though he had fallen through a trap-door. His load was taken off, and he was pulled up with ropes. Then the Kirghizes thought of a grand way of getting over the treacherous snow. They took the felt covers of the tent and spread them over the snow and led the horses one by one over this yielding bridge.

All this journey we waded and plunged through snowdrifts. One day I sent a horseman on in front to examine the road, and only the horse's head and the rider could be seen above the snow. Another time there was no Kirghiz tent as usual, and we bivouacked round a fire behind a wall of snow in a temperature of 29° below freezing-point. The Kirghizes who should have furnished us with a tent had been delayed on a pass by an avalanche of snow which overwhelmed forty sheep. Six men had struggled on to meet us, but two had stuck fast and were abandoned in the snow. Of the four who arrived in a sorry condition, one had his foot frozen and another had become snow-blind. The Kirghizes usually protect their eyes by a long lock of horse-hair hanging down over the forehead from beneath the

cap, or blacken the eye cavities and nose with charcoal.

Wolves swarm in these mountains, and we often saw the spoor of these blood-thirsty robbers. Hunger makes them very daring, and they do great damage to the flocks of the Kirghizes, as they will kill even when they do not wish to eat. A single wolf had recently worried 180 sheep belonging to a Kirghiz. A travelling Kirghiz was attacked in this neighbourhood by a pack of wolves, and when the body was found a couple of days later only the skull and skeleton were left. Another Kirghiz, who was mounted, was attacked and killed, horse and all. Two of my guides had fallen in with twelve wolves the winter before, but fortunately they were armed and killed two of them, which were at once devoured by their comrades.

It is not difficult to imagine the terrible plight of an unarmed Kirghiz attacked by wolves. They track him by scent and pursue him. Their wicked eyes glow with fury and blood-thirstiness. They wrinkle up their upper lips to leave their fangs exposed. Their dripping tongues hang out of their jaws. The traveller hears their sneaking steps behind him, and turning round can distinguish in the dusk their grey coats against the white snow. He grows cold with fright, and putting up a prayer to Allah, springs and dashes through the drifts in the hope of reaching the nearest village of tents.

Every now and again the wolves halt and utter their awful prolonged howl, but in an instant they are after the man again. Every minute they become bolder. The man flies for his life. They know that he cannot hold out long. Now they catch hold of a

corner of his fur coat, but let go when he throws his cap at them. They pounce upon it and tear it in pieces. This only whets their appetites. The poor man staggers on until he can hardly put one foot before another, and is almost at his last gasp. This is the moment, and the wolves throw themselves upon him from all sides. He screams, and fights with his hands; he draws out his knife and stabs into the pack in front of him, but a large wolf springs upon him from behind and brings him to the ground. There he has at any rate his back protected, but the eyes and teeth of the wolves gleam above him in the darkness, and he stabs at them with his knife. They know that he will tire of this game soon. Two wolves tear open his boots to get at his feet. He cannot reach them with his knife, so he sits up, and at the same moment the leader seizes him by the neck so that the blood spurts out over the white snow. The wolves have now tasted blood and nothing can restrain them. The man is beside himself and throws himself about thrusting desperately with his knife. The wolves attack him from behind and he falls again on his back. Now his knife moves more slowly. The wolves yelp, bark and pant, and the froth hangs round their teeth. The unfortunate man's eyes grow dim and he closes them, consciousness leaves him and he drops the knife from his hand, and the largest wolf is about to plunge his fangs into his throat. But suddenly the leader stops and utters a short bark, which in wolf's language is equivalent to an oath, for at the foot of an adjacent hill are seen two mounted Kirghizes, who have come out to seek their comrade. The wolves disappear like magic. The poor man lies quite motionless in his tattered furs, and the snow around is stained red with blood. He is unconscious, but is still breathing and his heart beats. His friends bind

up his wounds with their girdles and carry him on the back of a horse to the tent, where he soon comes back to life beside the flames of the evening fire.

Of course the Kirghiz must hate wolves. But the animals are cunning and seldom expose themselves to gunshot. Woe to the wolf that is wounded or caught! He is not killed, but the most cruel tortures are devised for him.

When heavy winter snow falls in the Alai valley, the wolves return to the higher wilds of the Pamir where the snow lies less deep, and here they chase the wild sheep, *Ovis Poli*, as it is named after its discoverer, Marco Polo. It has large, round, elegantly curved horns and is somewhat larger than the wild sheep of Tibet. The wolves chase Marco Polo's sheep by a cunningly devised method. They hunt up a herd and single out some less cautious or less quick-footed member. This animal is forced by a watch posted ready beforehand to take refuge on a projecting rock which is surrounded by wolves. If they can get up to the sheep they take him easily, but if not, they wait till his legs give way with weariness and he falls into the jaws of his pursuers.

Many a time I have met wolves in various parts of Asia, and many sheep, mules, and horses of mine have they destroyed. How often has their dismal howl sounded outside my tent, as though they were calling for my flesh and blood!

We had ridden 300 miles when we came to a small Russian frontier fort which rears its simple walls on the middle of the "Roof of the World," beside one of the headwaters of the Amu-darya. On the other side of the frontier lies the Eastern Pamir, in the dominion of the Emperor of China.

"The Father of Ice-Mountains"

Wherever one may be in the Eastern Pamir one sees the Mus-tagh-ata, the "Father of Ice-Mountains," rear its rounded summit above all the other peaks (see map, p. 56). Its height is 25,800 feet, and accordingly it is one of the loftiest mountains in the world. On its arched crest snow collects, and its under layers are converted by pressure into ice. The mountain is therefore crowned by a snow-covered ice-cap. Where there are flat hollows round the summit, in these also snow is piled up as in bowls. It glides slowly down with its own weight, and by pressure from above is here also converted into ice. Thus are produced great tongues of ice, which move downwards exceedingly slowly, perhaps only a few yards in the year. They are enclosed between huge steep ridges, from which time after time gravel and blocks of stone fall down on to the ice and are carried down to lower levels. The further the ice descends the warmer becomes the air, and then the ice melts in the sun. As it melts below, the stream of ice is forced down from above, so that its lowest margin is always to be found in the same place. The gravel and boulders are brought down thither and piled up together so as to form great mounds and ridges, which are called moraines. The ice-stream itself is called a glacier. Many such tongues of ice fringe Mus-tagh-ata on all sides. They are several miles long and half a mile to a mile broad. The surface is very uneven and consists of innumerable knobs and pyramids of clear ice.

I made several excursions on the glaciers of Mus-tagh-ata on foot or on yaks. One must be well shod so as not to slip, and one must look out for crevasses.

Once we were stopped by a crevasse several yards broad and forty-five feet deep. When we stooped over the brim and looked down, it had the appearance of a dark-blue grotto with walls of polished glass, and long icicles hung down from the edges. Streamlets of melted ice run over the surface of the glacier, sometimes flowing quietly and gently as oil in the greenish-blue ice channels, sometimes murmuring in lively leaps. The water can be heard trickling and bubbling at the bottom of the crevasses, and the surface brooks often form fine waterfalls which disappear into chasms of ice. On warm days when the sun shines, thawing proceeds everywhere, and the water trickles, bubbles, and runs all about the ice. But if the weather is dull, cold, and raw, the glaciers are quieter, and when winter comes with its severe cold they are quite hard and still, and the brooks freeze into ice.

The yaks of the Kirghizes are wonderfully sure-footed, and one can ride on them over slippery hillocky ice where a man could not possibly walk. The yak thrusts down his hoofs so that the white powdered ice spurts up around him, and if the slope is so steep that he cannot get foothold, he stretches out all four legs and holds them stiff and rigid as iron and thus slides down without tumbling. Sometimes I rode over moraine heaps of huge granite blocks piled one upon another. Then I had to take a firm grip with my knees, for the yak springs and jumps about like a lunatic.

Accompanied by specially selected Kirghizes, I tried four times to climb to the top of the "Father of Ice-Mountains," but always without success. Our camp was pitched high up among the moraines. Islam Bay, six Kirghizes, and ten yaks were in readiness before

sunrise, and we took with us ample provisions, fur coats, spades and alpenstocks, food and a tent. At first we climbed up over gravel, and then over snow which became deeper the higher we went. As the air became rarer, respiration was more difficult, and even the yaks halted frequently to recover their breath. The Kirghizes walked on foot and urged the animals up towards the giddy heights. It took us the whole day to reach a point 20,700 feet above sea-level. At this point we halted for the night, intending to push on higher in the morning, but two of the Kirghizes were so overcome with weariness and headaches that they asked to be allowed to go down again. The others shovelled away the snow and pitched the little tent within a wall of snow. A fire was kindled and the tea-kettle put on, but our appetites were poor, as we were suffering from mountain sickness. The ten yaks stood tethered in the snow outside, and the Kirghizes curled themselves up in their skin coats like hedgehogs. The full moon soared like a silvery white balloon just above the top of the mountain, and I left the tent to enjoy this never-to-be-forgotten spectacle. The glacier below us lay in shadow in its deep bed, but the snow-fields were dazzling white. The yaks stood out jet black against the snow, their nostrils steaming, and the snow crunching under them. Light white clouds floated rapidly from the mountain under the moon. At last I returned to the tent. The fire had died down, and the recently melted snow had frozen into ice. There was a smell of damp and smoke inside, and the men groaned and complained of headache and singing in the ears. I crawled under my furs, but could not sleep. The night was quiet, but at times a dull report was heard when a crevasse was formed in the ice or a boulder fell from the

mountain-side.

When I crawled out from under my furs in the morning, a violent snowstorm was sweeping along the flanks of the mountain. Through the dense cloud of whirling snow we could not see our way, and it would have been death to mount to still higher regions. We might be glad if we could struggle down again alive in such weather, so down we started through the drifts, down headlong. We all needed a thorough rest after this experience.

On another occasion we had a perilous adventure on the rounded ice-cap of Mus-tagh-ata. We were marching upwards as usual, suspecting no danger, when the foremost yak, which carried two large bundles of fuel, suddenly sank through the snow and disappeared. Fortunately he was held fast by his horns, a hind leg, and the faggots, and there he hung suspended over a dark yawning chasm. The snow had formed a treacherous bridge over a large crevasse in the ice, and this bridge gave way under the weight of the yak. We had all the trouble in the world to haul him up again with ropes.

A Kirghiz Gymkhana

At the foot of Mus-tagh-ata there is a level and extensive valley, where grass thrives luxuriantly. The black tents of the Kirghizes stand scattered about like spots on a panther's skin. I hired one of these tents for the summer of 1904, and spent several very interesting months in studying the habits and mode of life of the people. If the weather was fine, I made long excursions on horseback or on a yak, and compiled a map of the surrounding country. If rain poured down, I kept inside my own tent, or visited

my Kirghiz neighbours and talked with them, for by that time I had learned to speak their language.

Round the large hive-shaped tents fierce dogs keep watch, and small naked sunburnt children tumble about in play. They are charmingly sweet, and it is hard to believe that they will grow up into tall rough half-wild Kirghizes. But all children are attractive and lovable before life and mankind have hardened them. In the tent sit the young women, spinning thread or weaving cloth; the older women are busy with the sour milk and butter behind a partition in the tent, or perhaps they are sitting round a pot, cooking meat. A fire is always burning in the middle of the tent, and the smoke finds its way out through a round opening in the top. The young men are out with the sheep or are looking after the yaks grazing in the mountains. The older men repair saddles and boots, make harness for horses or household utensils. Sometimes they go hunting after wild sheep and goats. When the sun sets the sheep are driven into folds near the tent; the women milk the ewes and yak-cows. During the night a watch is kept on account of the wolves. The Kirghizes are Mohammedans, and are often heard intoning Arabic prayers outside the tents.

Not many days had passed before I was on friendly terms with all the Kirghizes. They perceived that I wished them well, and was glad to live among them. They came from far and near and gave me presents—sheep and milk, wild sheep they had shot, and mountain partridges. All my servants except Islam Bay were Kirghizes, and they followed me willingly wherever I chose to travel.

One day the chiefs of the Kirghizes decided to hold a

grand festival in my honour. It was to be a *baiga*, or gymkhana, and early in the morning small parties of horsemen were seen gathering to the great plain where the wild sport was to take place.

When the sun was at its height I was escorted to the arena by forty-two Kirghizes, who rode beside and behind me. In their best clothes, coloured mantles with girdles and embroidered caps, and with their daggers and knives, fire steel, pipe and tobacco box rattling at their sides, they presented a stately and festal appearance. Among them might be noticed the chief of the Kirghizes who lived on the eastern side of Mus-tagh-ata. His long mantle was dark blue, his girdle light blue; on his head he had a violet cap with a gold border, and at his side dangled a scimitar in a black scabbard. The chief himself was tall, with a thin black beard, scanty moustaches, small oblique eyes and high cheek bones, like most Kirghizes.

The plain in front of us was black with horsemen and horses; there was bustle, neighing, and stamping on all sides. Here the high chief, Khoat Bek, a hundred and eleven years old, sits firmly and surely in his saddle, though bent by the weight of years. His large aquiline nose points down to his short white beard, and on his head he wears a brown turban. He is surrounded by five sons, also grey-bearded old men, mounted on tall horses.

Now the performance began. The spectators rode to one side, leaving an open space in front of us. A horseman dashed forward with a goat in his arms, dismounted, and let the poor animal loose near to us. Another Kirghiz seized the goat by the horn with his left hand, cut off its head with a single blow of his sharp knife, allowed the blood to flow, and then took

the goat by the hind legs and rode at full speed round the plain. A troop of riders appeared in the distance and drew near at a furious pace. The hoofs of eighty horses beat the ground and the deafening noise was mingled with wild cries and the rattle of stirrup irons. They rushed swiftly past us in a cloud of dust, making a current of air like a storm of wind. The first rider threw the dead goat, which was still warm, in front of me, and then they whirled off like thunder over the plain.

"Ride back a little, sir," called out some chiefs, "there will be wild work now." We had hardly time to draw back far enough before the excited troop came rushing along, with their horses in a lather, like an avalanche from the mountains. Round the goat there was an inextricable confusion of men and horses, only partially visible in the dust. They were struggling for the goat, and the one who gets it is the winner. They crush together and tear and push; horses shy, rear, or fall down, while other horses leap over them. Holding on to their saddles the horsemen bend down towards the ground and feel for the hide. Some have fallen off and are in danger of being tramped upon, while others are hanging half under their horses.

Still worse becomes the tumult when a couple of men on yaks push themselves into the scrimmage. The yaks prod the horses' loins with their horns. The horses are irritated and kick, and the yaks defend themselves; then there is a perfect bullfight in full swing.

A strong fellow has now succeeded in getting a firm hold of the goat. His horse knows what to do, and backs with his rider out of the scrimmage and flies

swiftly as the wind in a wide course round the plain. The others pursue him, and as they turn back they look as if they mean to ride over us with irresistible force. At the last moment, however, the horses stop as if turned to stone; and then the struggle begins again. Many have their faces covered with blood, others have their clothes torn, caps and whips lie scattered over the arena, and one or two horses are lamed.

"It is very well for us who are old that we are not in the crush," I said to Khoat Bek.

"Ah, it is nearly a hundred years ago since I was as old as you are now," the old man answered with a smile.

FOOTNOTES:

[8] A team of three horses abreast.

[9] The word "darya" means "river."

VI

FROM PERSIA TO INDIA (1906)

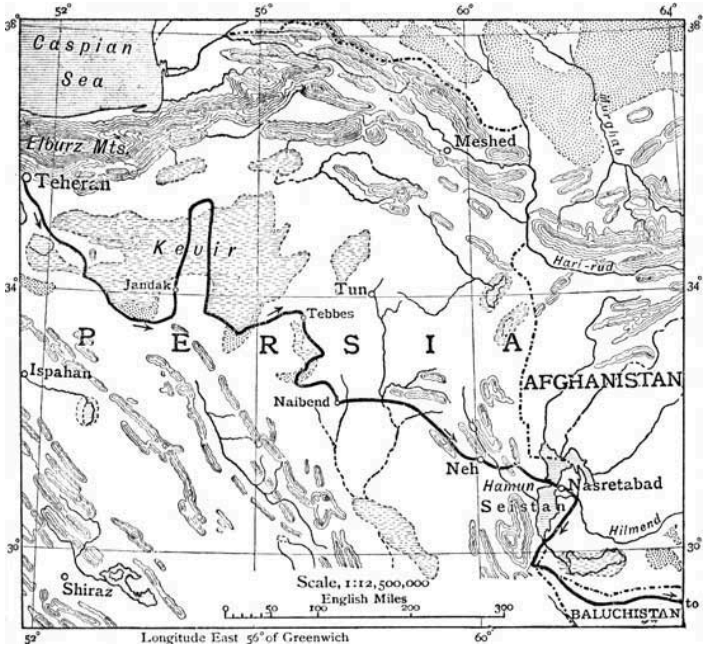
Tebbes to Seistan

Now we can return to Tebbes and continue our journey to India.

The camels are laden, we mount, the bells ring again, and our caravan travels through the desert for days and weeks towards the south-east. At length we come to the shore of a large lake called the Hamun, which lies on the frontier between Persia and Afghanistan. The Amu-darya forms the boundary between Bukhara and Afghanistan, the northern half of which is occupied by the Hindu-kush mountains. The name means "slaughterer of Hindus," because Hindus who venture up among the mountains after the heat of India have every prospect of being frozen to death in the eternal snow. Large quantities of winter snow are melted in spring, and then rivers and streams pour through the valleys to collect on the plains of southern Afghanistan into a large river called the Hilmend, which flows into the Hamun. As there are no proper boats or ferries on the lake, we had here to take farewell of the camels who had served us so faithfully and had carried us and our belongings through such long stretches of desert. We were sorry to part with them, but there was nothing for it but to sell them to the only dealer who would take them off our hands.

Reeds and rushes grow in abundance along the flat shores of the Hamun, but no trees. The natives build their huts of reeds, and also a curious kind of boat. Handfuls of dry, yellow reeds of last year's growth are tied together into cigar-shaped bundles, and then a number of such bundles are bound together into a torpedo-like vessel several yards long. When laden this reed boat floats barely four inches above the water, but it can never be filled and made to sink by the waves. It is true that the bundles of reeds might be loosened and torn apart by a high sea, but the natives take good care not to go out in bad weather.

It took fourteen of these reed boats to accommodate our party and its belongings. A half-naked Persian stood at the stern of each boat and pushed the vessel along by means of a long pole, for the lake though twelve miles broad is only five or six feet deep. A fresh breeze skimmed the surface when we came out of the reeds into the open lake, and it was very refreshing after weeks of the dry oppressive heat of the desert.



MAP SHOWING JOURNEY FROM TEHERAN TO BALUCHISTAN
(pp. 46-54 and 72-81).

After crossing the Hamun we had not more than a couple of hours' ride to the capital of Seistan, Nasretabad. Five months before us another guest had

arrived, the plague; and just at the time the black angel of death was going about in search of victims. He took the peasant from the plough and the shepherd from his flock; and the fisherman, who in the morning had gone cheerily to set his nets in the waters of the Hamun, in the evening lay groaning in his hut with a burning fever.

Asia is the birth-place of the ruling peoples, the Aryans, and of the yellow race; it is the cradle of the great religions, Buddhism, Christianity, and Mohammedanism; and it is also the breeding-place of fearful epidemic diseases which from time to time sweep over mankind like devastating waves. Among these is the "Black Death," the plague which in the year 1350 carried off twenty-five millions of the people of Europe. Men thought that it was a divine punishment. Some repented and did penance; others gave themselves up to drunkenness and other excesses. They had then no notion of the deadly bacteria, and of the serum which renders the blood immune from their attacks.

In 1894 a similar wave swept from China through Hong Kong to India, where three millions of human beings died in a few years. I remember a small house in the poor quarter of Bombay which I visited in 1902. The authorities had given orders that when any one died of the plague a red cross should be painted beside the doorpost of the house. And this small house alone had forty crosses.

And now in 1906 the plague had reached Seistan. From the roof of the house where I lived with some English officers, we could see the unfortunate people carrying out their dear ones to the grave. We could see them wash the bodies in a pool outside the walls,

and then resume their sad procession. The population of the small town seemed in danger of extermination, and at length the people fled in hundreds. An English doctor and his assistant wished to help them by means of serum injections, but the Mohammedan clergy, out of hatred of the Europeans, made the people believe that it was the Christians who had let loose the disease over the country. Deluded and excited, the natives gathered together and made an attack on the British Consulate, but were repulsed. Then they went back to their huts to die helplessly.

They tried as far as possible to keep the cases of death secret and carried out the corpses at night. Soon the deaths were so frequent that it was impossible to dig proper graves. Those, therefore, who thought of the hyænas and jackals, digged their own graves beforehand. Processions round the mosque of the town were instituted, with black flags and a sacrificial goat at the head, and the mercy of Allah was implored. But Allah did not hear, and infection was spread among the people who flocked together to the processions.

Under the microscope the deadly microbes appear only as quite small elongated dots, though they are magnified twelve hundred times. They live in the blood of rats, whose parasites communicate the infection to human beings. It is therefore most important to exterminate all rats when an outbreak of plague occurs. The disease is terribly infectious. In a house where the angel of death descends and carries off a victim, all the inmates die one after another. Stupidly blind, the natives did not understand what was good for them, and could not be induced to burn infected clothes and the whole

contents of a plague-stricken house. They would not part with their worldly goods and preferred to perish with them.

In one house dwelt a poor carpenter with his wife, two half-grown sons and a daughter. For two days the father had been oppressed by a feeling of weakness, and then, his body burning with fever, he lay raving in a corner on the floor of stamped earth. He was indifferent to everything and wished only to be left in peace. If his wife threw a rug over him he groaned, for the lymph glands, which swell up in large tumours, are exceedingly painful. In a couple of days the microbes penetrate from the tumour into the blood and the unfortunate man dies of blood poisoning. The vermin under the man's clothes leave the body as soon as the blood ceases to flow. Then is the danger greatest for the survivors who stand mourning round the deathbed, for the vermin seek circulating blood and carry infection from the corpse with them. It is useless to warn the natives of the danger, for they do not believe a word of it—and so die in their turn.

A Baluchi Raid

We were glad to leave a country where the plague had taken up its abode and to hasten away to the desert tracts of Baluchistan, which still separated us from India. My old servants had taken their departure, and a new retinue, all Baluchis, accompanied me.

We rode *jambas*, or swift-footed dromedaries, which for generations have been trained for speed. Their legs are long and thin, but strong, with large foot pads which strike the hard ground with a heavy

tapping sound as they run. They carry their heads high and move more quickly than the majestic caravan camels; but when they run they lower their heads below the level of the hump and keep it always horizontal.

Two men ride on each *jambas*, and therefore the saddle has two hollows and two pairs of stirrups. A peg is thrust through the cartilage of the nose and to its ends a thin cord is attached. By pulling this to one side or the other the dromedary may be turned in any direction. My courser had a swinging gait but did not jolt; and I sat comfortably and firmly in the saddle as we left mile after mile behind.

It is not more than thirty or forty years ago since the Baluchis used to make raids into Persian territory, and although much better order is maintained now that the country is under British administration, an escort is still necessary—I had six men mounted on dromedaries and armed with modern rifles. This is how a raid is conducted.

One evening Shah Sevar, or the "Riding King," the warlike chieftain of a tribe in western Baluchistan, sits smoking a pipe by the camp fire in front of his black tent, which is supported by tamarisk boughs (Plate VII.). The tale-teller has just finished a story, when two white-clad men with white turbans on their heads emerge from the darkness of the night. They tie up their dromedaries, humbly salute Shah Sevar, who invites them to sit down and help themselves to tea from an iron pot. Other men come up to the fire. All carry long guns, spears, swords, and daggers. Some lead two or three dromedaries each.

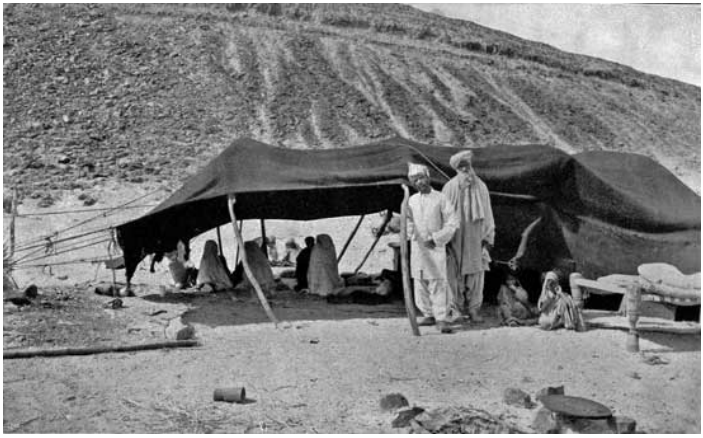


PLATE VII. A BALUCHI NOMAD TENT.

Fourteen men are now gathered round the fire. There is a marked silence in the assembly, and Shah Sevar looks serious. At length he asks, "Is everything ready?"

"Yes," is the reply from all sides.

"Are the powder and shot horns filled?"

"Yes."

"And the provisions packed in their bags?"

"Yes—dates, sour cheese, and bread for eight days."

"I told you the day before yesterday that this time we shall strike at Bam. Bam is a populous town. If we are discovered too early the fight may be hot. We must steal through the desert like jackals. The distance is three hundred miles, four days' journey."

Again Shah Sevar stares into the fire for a while and then asks, "Are the *jambas* in good condition?"

"Yes."

"And ten spare dromedaries for the booty?"

"Yes."

Then he rises and all the others follow his example. Their wild, bold faces glow coppery-red in the light of the fire. They consider petty thieving a base occupation, but raiding and pillaging an honourable sport, and boast of the number of slaves they have captured in their day.

"Mount," commands the chieftain in a subdued voice. Muskets are thrown over the shoulder and rattle against the hanging powder-horn and the leather bag for bullets, flint, steel, and tinder. Daggers are thrust into belts, and the men mount without examining the saddle-girths and bridles, for all has been carefully made ready beforehand. The spear is secured in front of the saddle. "In the name of Allah," calls out Shah Sevar, and the party rides off through the night at a steady pace.

The path they follow is well known and the stars serve as guides. Day breaks, the sun rises, and the shadows of the dromedaries point towards Bam over the hard yellow sand where not a shrub grows. Not a word has been spoken during the night, but when the first seventy miles have been traversed the chief says, "We will rest a while at the Spring of White Water." On arriving at the spring they refill their water-skins and let the dromedaries drink. Then they go up into the neighbouring hills and wait till the hot hours of the day are over. They never encamp at the springs, for there they are likely to meet with other people.

At dusk they are in the saddle again. They ride harder than during the first night and travel till they come to a salt spring. The third night the dromedaries begin to breathe more heavily, and when the sun rises flecks of white froth hang from their trembling lips. They are not tired but only a little winded, and they press on through clouds of dust without their riders having to urge them.

Now the party leaves behind it the last desert path, which is only once in a while used by a caravan, and beyond it is a perfect wilderness of hardened salt-impregnated mud. Nothing living can be seen, not even a stray raven or vulture which might warn the people in Bam of their danger. Without rest the robber band pushes on all day, as silent as the desert, the only sounds being the long-drawn breathing of the dromedaries and the rasping sound of their foot-pads on the ground. When the reflection of the evening sky lies in purple shades over the desert, they have only ten or twelve miles more to go.

Shah Sevar pulls up his dromedary and orders a halt in muffled tones, as though he feared that his voice might be heard in Bam. With a hissing noise the riders make their animals kneel and lie down, and then they spring out of the saddle, and tie the end of the cord round the dromedaries' forelegs to prevent the animals from getting up and making a noise and thus spoiling the plan. All are tired out and stretch themselves on the ground. Some sleep, others are kept awake by excitement, while four riders go scouting in different directions. Bam itself cannot be seen, but the hill is visible at the foot of which the town stands. The men long for night and the cover of darkness.

The day has been calm and hot, but now the evening is cool and the shadows dense. A faint breeze comes from the north, and Shah Sevar smiles. If the wind were from the east, he would be obliged to make a detour in order not to rouse the dogs of the town. It is now nine o'clock and in an hour the people of Bam will be asleep. The men have finished their meal, and have wrapped up the remainder of the dates, cheese, and bread in their bundles and tied them upon the dromedaries.

"Shall we empty the waterskins so as to make the loads lighter for the attack?" asks a Baluchi.

"No," answers Shah Sevar; "keep all the water that is left, for we may not be able to fill the skins in the town before our retreat."

"It is time," he says; "have your weapons ready." They mount again and ride slowly towards the town.

"As soon as anything suspicious occurs I shall quicken my pace and you must follow. You three with the baggage camels keep in the rear."

The robbers gaze in front like eagles on their prey, and the outlines of the hill gradually rise higher above the western horizon. Now only three miles remain, and their sight, sharpened by an outdoor life, distinguishes the gardens of Bam. They draw near. The bark of a dog is heard, another joins in—all the dogs of the town are barking; they have winded the dromedaries.

"Come on," shouts the chief. With encouraging cries the dromedaries are urged forward; their heads almost touch the ground; they race along while froth and dust fly about them. The dogs bark furiously and

some of them have already come out to meet the dromedaries. Now the wild chase reaches the entrance to the town. Cries of despair are heard as the inhabitants are wakened; and women and wailing children escape towards the hill. The time is too short for any organised defence. There is no one to take the command. The unfortunate inhabitants run over one another like scared chickens and the riders are upon them. Shah Sevar sits erect on his dromedary and leads the assault. Some jump down and seize three men, twelve women, and six children, who are hastily bound and put in charge of two Baluchis, while others quickly search some houses close at hand. They come out again with two youths who have made a useless resistance, a couple of sacks of grain, some household goods, and all the silver they could find.

"How many slaves?" roars Shah Sevar.

"Twenty-three," is answered from several directions.

"That is enough; pack up." The slaves and the stolen goods are bound fast on dromedaries. "Quick, quick," shouts the chief. "Back the way we came." In the hurry and confusion some of the animals get entangled in one another's ropes. "Back! Back!" The chieftain's practised eye has detected a party of armed men coming up. Three shots are heard in the darkness, and Shah Sevar falls backwards out of the saddle, while his dromedary starts and flies off into the desert. The rider's left foot is caught fast in the stirrup and his head drags in the dust. A bullet has entered his forehead, but the blood is staunched by the dust of the road. His foot slips out of the stirrup, and the "Riding King" lies dead as a stone outside Bam.

Another robber is severely wounded and is cut to pieces by the townsmen. Bam has waked up. The entangled dromedaries with their burdens of slaves and goods are captured, but the rest of the party, twelve riders with ten baggage camels, have vanished in the darkness, pursued by some infuriated dogs. Sixteen of the inhabitants of the town are missing. The whole thing has taken place in half an hour. Bam sleeps no more this night.

Now the dromedaries are urged on to the uttermost; they have double loads to carry, but they travel as quickly as they came. The kidnapped children cease to cry, and fall asleep with weariness and the violent swaying motion. The party rides all night and all the next day without stopping, and the robbers often look round to see if they are pursued. They rest for the first time at the salt spring, posting a look-out on an adjacent mound. They eat and drink without losing a minute, and get ready for the rest of the ride. The captives are paralysed with fright; the young women are half choked with weeping, and a little lad in a tattered shirt goes about crying vainly for his mother. The eyes of the captives are blindfolded with white bandages that they may not notice the way they are travelling and try later to escape back to Bam. Then the headlong ride is resumed, and after eight days the troop of riders is back at home with their booty, but without their chief.

Innumerable raids of this kind have scourged eastern Persia, and in the same way Turkomans have devastated Khorasan in the north-east. On the eastern frontier it is the Kurds who are the robbers. In this disturbed frontier region there is not a town without its small primitive mud fort or outlook

tower.

Scorpions

On running dromedaries we now ride on eastwards through northern Baluchistan. Dry, burnt-up desert tracts, scantily clothed with thistles and shrubs, moving dunes of fine yellow sand, low hill ridges disintegrated by alternate heat and cold—such is the country where a few nomads wander about with their flocks, and the stranger often wonders how the animals find a living. In certain valleys, however, there is pasture and also water, and sometimes belts of thriving tamarisks are passed, and bushes of saxaul with green leafy branches, hard wood, and roots which penetrate down to the moisture beneath the surface.

The great caravan road we are following is, however, exceedingly desolate. Only at the stations is water to be found, and even that is brackish; but the worst trial is the heat, which now, at the end of April, becomes more oppressive every day. The temperature rises nearly up to 105-1/2° in the shade, and to ride full in the face of the sun is like thrusting one's head into a blazing furnace. When there is a wind we are all right, and the sand whirls like yellow ghosts over the heated ground. But when the air is calm the outlines of the hills seem to quiver in the heat, and the barrel of a gun which has been out in the sun blisters the hands on being touched. In the height of the summer the Baluchis wrap strips of felt round their stirrup-irons to protect the dromedaries from burns on the flanks.

This region is one of the hottest in the world. The sun stands so high at mid-day that the shadows of

the dromedaries disappear beneath them. You long for sunset, when the shadows lengthen out and the worst of the heat is over. It is not really cool even at night, when, moreover, you are plagued with whole swarms of gnats.

Baluchistan and Persia abound with scorpions, which are indeed to be found in all the hot regions of the five continents. About two hundred species have been distinguished. Some are quite small, others six inches long. Some are dark-brown, others reddish, and others again straw-yellow, as in Baluchistan. The body consists of a head and thorax without joints, and a hinder part of seven articulated rings, besides six tail rings. The last ring, the thirteenth, contains two poison glands and is furnished with a sting as fine as a needle. The poison is a fluid clear as water.

Scorpions live in rotten tree-trunks, under stones, on walls, and as they like warmth they often enter houses and huts, and creep into clothes and beds.

The scorpion leaves his dark den at night and sets out on the hunt. He holds his tail turned up over his back, in order to keep his sting from injury and to be ready at once for attack or defence. When he meets with a desirable victim, such as a large spider, he darts quickly forward, seizes it with his claws, which are like those of crabs, raises it above his head in order to examine it with his eyes, which are turned upwards, and gives it the death-stroke with his sting. Then he sucks up the softer parts and grinds the harder between his jaws.

The young ones, which are active as soon as they are born, are like the old ones from the first day, but are light-coloured and soft. They crawl about their mother's back and legs and do not leave her body for

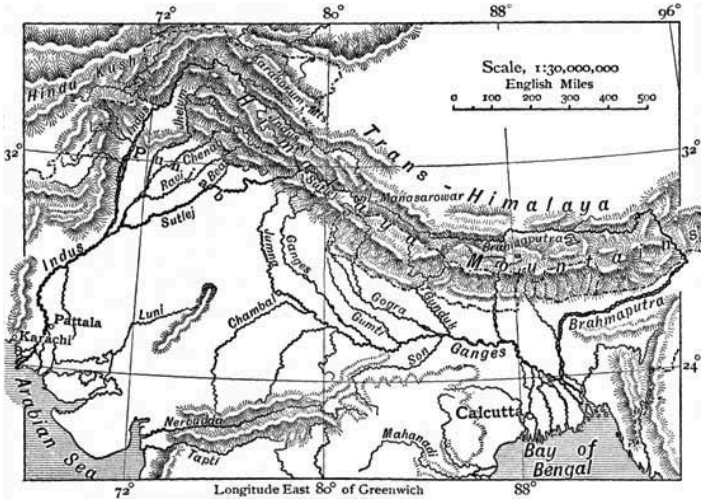
some time. When that happens the mother dies, having meanwhile wasted away.

The sting of large scorpions is dangerous even to human beings. Cases have been known of a man dying in great agony twelve hours after being stung. Others get cramp, fever, and pains before they begin to recover. A man who has often been stung becomes at last insensible to the poison.

Many a time I have found scorpions in Asiatic huts, in my tent, on my bed, and under my boxes, but I have never been stung by one. On the other hand, it has been the fate of many of my servants, and they told me that it was difficult to find out where the scorpion had stung them, for their bodies sweated and burned equally intensely all over. In Eastern Turkestan it is the practice to catch the scorpion which has stung a man and crush him into a paste, which is laid over the puncture made by the sting. But whether this is a real cure I do not know.

The Indus

After travelling 1500 miles on camels and dromedaries, the whistle of an engine sounds like the sweetest music to the ear. At Nushki (see map, p. 132), the furthermost station of the Indian railway, I took leave of my Baluchi servants, stepped into a train, and was carried past the garrison town of Quetta south-eastwards to the Indus. Here we find that one branch of the railway follows the river closely on its western bank to Karachi, one of the principal seaports of British India. Our train, however, carries us northwards along the eastern bank to Rawalpindi, an important military station near the borders of Kashmir.



MAP OF NORTHERN INDIA, SHOWING RIVERS AND MOUNTAIN RANGES.

In the large roomy compartment it is as warm as it was lately in Baluchistan, or nearly 107°. To shade the railway carriages from the burning sun overhead, they are provided with a kind of wooden cover with flaps falling down half over the windows. The glass is not white, as in European carriage windows, but dark blue or green, otherwise the reflexion of the sunlight from the ground would be too dazzling. On either side two windows have, instead of glass, a lattice of root fibres which are kept wet automatically night and day. Outside the window is a ventilator, which, set in action by the motion of the train, forces a rapid current of air through the wet network of fibres. Thereby the air is cooled some eighteen or twenty degrees, and it is pleasant to sit partly undressed in the draught.

Look a moment at the map. South of the Himalayas

the Indian peninsula forms an inverted triangle, the apex of which juts out into the Indian Ocean like a tooth, but the northern part, at the base, is broad. Here flow the three large rivers of India, the Indus, the Ganges, and the Bramaputra. The last mentioned waters the plains of Assam at the eastern angle of the triangle. On the banks of the Ganges stands a swarm of famous large towns, some of which we shall visit when we return from Tibet. The Ganges and Bramaputra have a delta in common, through which their waters pass by innumerable arms out into the Bay of Bengal.

At the western angle of the triangle the Indus streams down to the Arabian Sea. The sources of the Indus and Bramaputra lie close to each other, up in Tibet, and the Himalayas are set like an immense jewel between the glistening silver threads of the two rivers. On the west the Indus cuts through a valley as much as 10,000 feet deep, and on the east the Bramaputra makes its way down to the lowlands through a deep-cut cleft not less wild and awesome.

The Indus has several tributaries. In foaming waterfalls and roaring rapids they rush down from the mountains to meet their lord. The largest of them is called the Sutlej, and the lowlands through which it flows are called the Punjab, a Persian word signifying "five waters." The Indus has thirteen mouths scattered along 150 miles of coast, and the whole river is 2000 miles long, or somewhat longer than the Danube.

In the month of July, 325 years before the birth of Christ, Aristotle's pupil, Alexander, King of Macedonia, floated down the Indus with a fleet of newly built ships and reached Pattala, where the

arms of the delta diverge. He found the town deserted, for the inhabitants had fled inland, so he sent light troops after them to tell them that they might return in peace to their homes. A fortress was erected at the town, and several wharves on the river bank.

He turned over great schemes in his mind. Had he not at twenty years of age taken over the government of the little country of Macedonia, and subdued the people of Thrace, Illyria, and Greece? Had he not led his troops over the Hellespont, defeated the Persians, and conquered the countries of Asia Minor, Lycia, Cappadocia, and Phrygia, where with a blow of his sword he had severed the Gordian knot, a token of supremacy over Asia? At Issus, on the rectangular bay facing Cyprus, he had inflicted a crushing defeat on the great King of Persia, Darius Codomannus, who with the united forces of his kingdom had come to meet him. At Damascus he captured all the Persian war funds, and afterwards took the famous commercial towns of the Phoenicians, Tyre and Sidon. Palestine fell, and Jerusalem with the holy places. On the coast of Egypt he founded Alexandria, which now, after a lapse of 2240 years, is still a flourishing city. He marched through the Libyan desert to the oasis of Zeus Ammon, where the priests, after the old Pharaonic custom, consecrated him "Son of Ammon."

He passed eastwards into Asia, crossed the Euphrates, defeated Darius again at the Tigris, and reduced proud Babylon and Shushan, where 150 years previously King Ahasuerus, who reigned "from India even unto Ethiopia over an hundred and seven and twenty provinces," made a feast for his lords and "shewed the riches of his glorious kingdom and the

honour of his excellent majesty." Then he advanced to Persepolis and set on fire the palace of the Great King to show that the old empire had passed away. Pursuing Darius through Ispahan and Hamadan, he afterwards turned aside into Bactria, the present Russian Central Asia, and marched northwards to the Syr-darya and the land of the Scythians. Thence, with an army of more than a hundred thousand men, he proceeded southwards and conquered the Punjab and subdued all the people living west of the Indus.

Now he had come to Pattala, and he thought of the victories he had gained and the countries he had annexed. He had appointed everywhere Greeks and Macedonians to rule in conjunction with the native princes and satraps.[10] The great empire must be knit together into a solid unity, and Babylon was to be its capital. Only in the west there was still an enormous gap to be conquered, the desert through which we have lately wandered on the way from Teheran through Tebbes and Seistan and Baluchistan.

In order to reduce the people living here he despatched a part of his host by a northerly route through Seistan to north Persia. He himself led forty thousand men along the coast. Twelve thousand men were to sail and row the newly-built ships along the coast of the Arabian Sea, through the Straits of Hormuz, and along the northern coast of the Persian Gulf to the mouth of the Euphrates. No Greek had ever navigated this sea before, and with the vessels of the period the enterprise was a most dangerous one, as absolutely nothing was known about the coast to be followed. But it was necessary, for Alexander wished to secure for himself the command of the sea route between the mouths of the Euphrates

and Indus, so as to connect the western and eastern parts of his kingdom. It was to supply the fleet with provisions and water that he chose for himself the dangerous desert route along the coast. Of the 40,000 men who accompanied him on this march, no less than 30,000 died of thirst! The high admiral, Nearchus of Crete, performed his task with brilliant success. His voyage was one of the most remarkable ever achieved on the oceans of the globe. The chart he compiled is so exact that it may be used at the present day, though the coast has since then undergone changes in some places and has been further silted up with sand and made shallower.

Alexander would not let his fleet start on its adventurous voyage before he was himself convinced of the navigability of the Indus and had acquainted himself with the aspect of the great ocean. Accordingly he sailed down the western arm of the Indus with the swiftest vessels of the fleet—thirty-oared boats, and small triremes, or vessels whereon the 150 naked oarsmen sat on three tiers of benches above one another with oars of different lengths projecting through port-holes in the hull. The vessels were protected by troops which followed them on the bank.

In the midst of summer, when the river is at its highest level and overflows the banks for miles, it is no pleasure excursion to steer ungainly boats between banks of sand and silt without pilots. On the second day a strong southerly storm arose, and the dangerous waves in the whirlpools of the current capsized many vessels and damaged others. Alexander made for the bank to look for fishermen who might act as pilots, and under their guidance he continued his voyage. The river became wider and

wider, and the fresh salt breeze from the ocean became ever more perceptible; but the wind increased, for the south-west monsoon was at its height. The grey turbid water rose in higher billows and made rowing difficult, for the oars either did not touch the water or dipped too deeply into it. It was the flood tide running up from the sea which impeded their progress, but the ebb and flow of the sea was new to them. Eventually Alexander sought the shelter of a creek, and the vessels were dragged ashore. Then came the ebb, and the water fell as though it were sucked out into the sea. The boats were left high and dry, and many of them sank deep in the mud. Astonished and bewildered, Alexander and his men could get neither forward nor backward. They had just made preparations to get the ships afloat, when the tide returned and lifted them.

Now they went farther down-stream and came in contact with the raging surf of the monsoon, which advances in light-green foam-crowned waves far into the mouth and changes the colour of the river water. The collision of the Indus current with the rising tide fills the fairway with whirlpools and eddies, which are exceedingly dangerous even for the best of vessels of the present day. Several ships were lost, some being thrown up on the banks, while others dashed together and went to pieces.

After they had taken note of the regular rise and fall of the tide, they could avoid danger, and the fleet arrived safely at an island where shelter could be obtained by the shore and where fresh water was abundant. From here the foaming, roaring surf at the very mouth of the Indus could be seen, and above the rolling breakers appeared the level horizon of the ocean.

With the best of the vessels Alexander went out to ascertain whether the surf could be passed through without danger and the open sea be reached. The trial proved successful, and another island was found, begirt on all sides by open sea. The ships then returned in the dusk to the larger island, where a solemn sacrifice was made to Ammon to celebrate the first sight of the sea and of the margin of the inhabited world towards the south.

Next day Alexander rowed right out to sea to convince himself that no more land existed, and when he had advanced so far that nothing but sky and rolling billows could be seen from the uppermost benches of the triremes, he offered sacrifices to Poseidon, the god of the sea, to the Nereids, and to the silver-footed sea-goddess Thetis, the mother of Achilles, father of his race. And he besought the favour of all the gods in the great enterprise which had brought him to the mouth of the Indus, and their protection for his fleet on its dangerous voyage to the Euphrates; and when his prayer was ended he cast a golden goblet into the sea.

Alexander died at Babylon at the age of thirty-three. His world-embracing campaign spread Greek enlightenment over all western Asia, and his eventful life did not pass like a meteor into the night of time without leaving a trace behind.

Kashmir and Ladak

When I arrived at Rawalpindi the first thing I did was to order a *tonga* for the drive of 180 miles to Srinagar, the capital of Kashmir. A *tonga* is a two-wheeled tilted cart drawn by two horses, which are changed every half hour, for as long as the pair are

on the way they go at full speed. The road was excellent, and we left the hot suffocating steam of India below us as we ascended along the bank of the Jhelum River. Sometimes we dashed at headlong speed over stretches of open road bathed in sunlight; sometimes through dark cool tunnels where the driver blew a sonorous signal with his brass horn; and then again through rustling woods of pine-trees.



PLATE VIII. SRINAGAR AND THE JHELUM RIVER.

Srinagar is a beautiful city, intersected as it is by the rippling Jhelum River and winding canals (Plate VIII.). The houses on their banks rise up directly from the water, and long, narrow, graceful boats pass to and fro, propelled at a swift pace by broad-bladed oars in the hands of active and muscular white-clad Kashmiris.

Kashmir is one of the native states of our Indian Empire, and its inhabitants number about three millions. Many of them are artistic and dexterous craftsmen, who make fine boxes and caskets inlaid with ivory, mother-of-pearl, and ebony; beautifully

chased weapons; tankards, bowls, and vases of beaten silver with panthers and elephants on the sides, chasing one another through the jungle. The saddlery and leather work of all kinds cannot be surpassed, but most famous of all the manufactures are the soft, dainty Kashmir shawls, so fine that they can be drawn through a finger ring.

Round about the Kashmir valley stand the ridges and snow-clad heights of the Himalayas, and among them lie innumerable valleys. Up one of these valleys toiled our caravan of thirty-six mules and a hundred horses, and after a journey of some 250 miles to the eastward we arrived again at the banks of the Indus and crossed it by a swaying bridge of wood. Two days later the poplars of Leh stood in front of us.

This little town is nearly 11,500 feet above sea-level. It contains an open bazaar street, and a mound above the town is crowned by the old royal castle. Leh, as well as the whole of the district of Ladak, is subject to the Maharaja of Kashmir, but the people are mostly of Tibetan race and their religion is Lamaism.

FOOTNOTES:

[10] A "satrap" was originally a governor of a province in ancient Persia.

VII

EASTERN TURKESTAN (1895)

The Takla-makan Desert

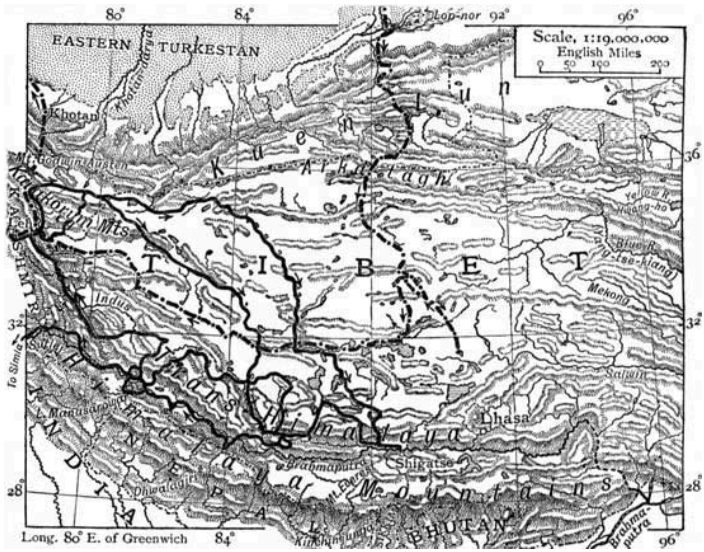
We are now on the high road between India and Eastern Turkestan, the most elevated caravan route in the world. Innumerable skeletons of transport animals lie there, marking where the road passes through snow. After a month's journey over the cold, lofty mountains we come to the town of Yarkand, in the spacious, flat, bowl-shaped hollow, surrounded on all sides except the east by mountains, which is called Eastern Turkestan.

To the south stand the immense highlands of Tibet, where the great rivers of India and China take their rise. On the west is the Pamir, the "Roof of the World," where the two great rivers of the Sea of Aral begin their course. On the north lie the Tien-shan, or Mountains of Heaven, which are continued farther north-eastwards by the Altai and several other mountain systems, among which the gigantic rivers of Siberia have their origin. Within this ring of mountains, at the very heart of the great continent of Asia, lies this lowland of Eastern Turkestan, like a Tibetan sheepfold enclosed by enormous walls of rock.

In its northern part a river called the Tarim flows from west to east. It is formed by the Yarkand-darya and the Khotan-darya on the south, and receives other affluents along its course, for water streams down from the snowfields and glaciers of the wreath of mountains enclosing Eastern Turkestan. The head-waters of the Tarim leap merrily down through narrow valleys among the mountains, but the great

river is doomed never to reach the sea. It terminates and is lost in a desert lake named Lop-nor.

Trees grow along this river, mostly small, stunted poplars, but the wooded belts along the banks are very narrow; soon the trees thin out and come to an end, steppe shrubs and tamarisks take their place, and only a mile or two from the river there is nothing but deep sand without a sign of vegetation. The greater part of Eastern Turkestan is occupied by the desert called Takla-makan, the most terrible and dangerous in the world.



MAP OF EASTERN TURKESTAN, SHOWING JOURNEYS DESCRIBED ON pp. 89-110.

A belt of desert runs through the whole of Asia and Africa, like a dried-up river bed. This belt includes the Gobi, which extends over most of Mongolia, the Takla-makan, the "Red Sand" and the "Black Sand" in

Russian Turkestan, the Kevir and other deserts in Persia, the deserts of Arabia, and lastly the Sahara. In this succession of deserts extending over the Old World from the Pacific Ocean to the Atlantic the Takla-makan is, then, a link.

Across a Sea of Sand

In the beginning of April, 1895, I had reached the Yarkand-darya and had encamped at a village, Merket, on its eastern bank. My plan was to cross the Takla-makan desert, which stretches away to the eastward, and to reach the river Khotan-darya, which flows northwards, the distance being 180 miles. My caravan consisted of four servants and eight camels; and we took provisions for two months—for we intended afterwards to travel on to Tibet—and water for twenty-five days in four iron cisterns.

We started on April 10. A white camel was led in front by a man we called the guide, because every one said that he had often been in the desert seeking for treasure. My riding camel was led by a white-bearded man named Muhamed Shah. Kasim came at the end of the file, and the faithful Islam Bay, who superintended the whole, was my confidential servant. We had also two dogs, Yolldash and Hamra, three sheep, ten hens, and a cock. The last did not like riding on a camel. He was always working his way out through the bars of his cage, and fluttering down to the ground with a loud crow.

For the first few days all went on quietly and satisfactorily. At night we could always obtain water for the camels and other animals by digging, and thus we saved the fresh river-water in our tanks. But the sand became gradually higher and forced us to

diverge to the north-east. On April 18 we came to a morass surrounded by wood so thick that we had to clear a way with the axe. Next day we encamped on the shore of a lake of beautiful blue water where ducks and geese were swimming about, and my tent was set up under a couple of poplars.

Another day's march led us along the shore of a long lake with bare banks. We encamped at its southern extremity and rested a day, for here nothing could be seen towards the south and west but yellow sand. The guide asserted that it was four days' journey eastwards to the river Khotan-darya, and this statement agreed approximately with existing maps, but I took the precaution of ordering the men to take water for ten days.

On April 23 we left the last bay of the last lake to plunge into the high sand. All vegetation came to an end, and only in some hollow a solitary tamarisk was still to be seen. The sandhills became ever higher, rising to as much as 100 feet.

The next day we marched on in a violent storm. The sand swept down in clouds from the crests of the dunes, penetrating into our mouths, noses, and eyes. Islam Bay led our train and looked for the easiest way for the camels. We noticed, however, that they were already beginning to get tired. Sometimes they fell in the sand, and their loads had to be taken off before they could get up again. When the tent was set up we had made only eight miles. Now there was not a sign of life, not a moth fluttered round my candle, not a wind-borne leaf was seen in the boundless yellow sand.

On the morning of the 25th I made a terrible discovery: two cisterns were empty and the other

two contained only enough water for two days. Henceforth Islam Bay was put in charge of the cisterns. The water was treasured like gold and served out in driblets.

I travelled on foot to spare my riding camel and encourage the men. The caravan moved more slowly through the murderous sands. One camel, called Old Man, lagged behind. We waited an hour, and gave him a mouthful of water and a handful of hay from his own pack-saddle. When we went on, he was led slowly after us by Muhamed Shah.

With Islam I measured out the last drops of water on the night of the 26th. There were about two small cups daily for each of us for three days. The next day we plunged again into terrible sand, the dunes being 200 feet high. In the evening we saw dense rain-clouds in the west, and hoped that Heaven would have compassion on us. The clouds spread out and came still nearer. All our vessels were made ready, and the tent was stretched on the ground to collect the sweet water which was to save us. We waited in vain, for the clouds dispersed and yielded us not a drop.

The two tired-out camels had been abandoned at the beginning of the day, and we had thrown away a stove, a carpet, my tent-bed, and two empty water cisterns.

On April 28 we were awakened by a north-easterly storm, one of those "black storms" which stir up the drift-sand in dense clouds and turn day into night. All the camp was buried in sand. Only the nearest camels could be seen, and their track was immediately obliterated. We had to keep all together lest we should lose one another. It was quite possible

to lose the caravan at a distance of a few paces, and that meant death. We were almost suffocated by the volumes of sand which whirled about us, and had to rest frequently to get our breath. The camels lay down with their heads to leeward, and we thrust our faces under them that we might not be choked with sand.

Then we went on with faltering steps. A camel fell and I sent two men after him. They came back directly, saying that the track was smoothed out by the wind and that they dared not lose sight of us. That was the third victim. At the evening camp everything not absolutely indispensable was sorted out to be left behind, and a stick was set up on the nearest dune with a newspaper wrapped round it so that we might find the place again if we obtained water soon. There was still a little water left in the two cans, but next morning Islam came and told me that one of them was empty. There can be little doubt that the guide was the thief who had robbed us all. With failing steps we struggled on all day among the high sand dunes.

On the morning of the 30th there was less than two-thirds of a pint of water left in the last can. While the others were engaged in loading the camels, Islam surprised the guide as he stood with the can to his mouth. Islam fell upon him furiously, threw him to the ground, and would have killed him if I had not come up in time. Only one-third of a pint was now left. At mid-day I moistened the men's lips with the corner of a handkerchief dipped in water. In the evening the last drops were to be distributed, but when the time came the can was found to be absolutely empty. Kasim and Muhamed, who led the camels, had drunk it all.

The End of the Caravan

The night was cold, but the sun had not long risen on May 1 before the heat spread over the dunes. The men drank the last of some rancid vegetable oil which had been intended for the camels. I was tortured with thirst, as I had not drunk a drop of water the day before, and before that only a few mouthfuls. Thirst is a fearful thing, driving one to despair, and almost depriving one of reason. As the body dries up, the desire for water leaves one no peace. We had a flask of Chinese spirits which were intended for a cooking stove. I now drank about a tumblerful of it to give my body a little moisture, and then I threw the flask away and let its dangerous contents run out into the sand.

The insidious liquor undermined my strength. When the caravan toiled on through the dunes I could not follow it. I crept and staggered in its track. The bells rang out clearly in the quiet air, but the sound became fainter, and at length died away in the distance. The silent desert lay around me—sand, sand, sand in all directions.

Following slowly in the footsteps of the others, I came at last to the crest of a dune, where I saw that the camels of the caravan had laid themselves down. Muhamed Shah was on his knees imploring help from Allah. Kasim was sitting with his face in his hands, weeping and laughing alternately. Islam, who had been exploring in front, came back and proposed that we should look for a place where we could dig for water (Plate IX.). I therefore mounted the white camel, after his load—ammunition boxes, two European saddles, and a number of other articles—had been thrown away, but the animal would not get

up. We then decided to stay where we were and wait for the cool of evening, and the tent was set up to afford us shade. Even Yolldash and the sheep came in.

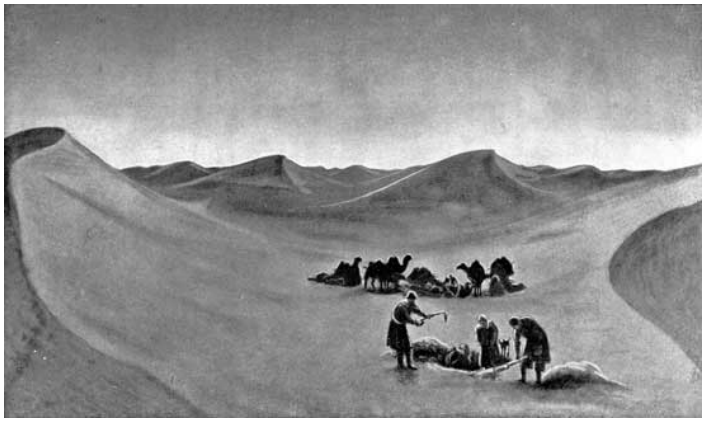


PLATE IX. DIGGING FOR WATER IN THE TAKLA-MAKAN.

At mid-day a gentle breeze sprang up, and the air felt pleasant and refreshing. We killed the cock and drank its blood. Then Islam turned the head of the sheep towards Mecca, cut off its head, and collected the blood in a pail, but it was thick and smelt offensively, and not even the dog Yolldash would touch it.

We now sorted out all our belongings, taking with us only what was absolutely necessary at the moment, and leaving everything else behind in the tent. The guide had lost his reason and filled his mouth with sand, thinking it was water. He and old Muhamed Shah, who was also dying, had to be left behind.

At seven o'clock I mounted the white camel. Islam

led the train and Kasim urged the animals on. The funeral bells, now rang for the last time. From a high sandy crest I turned a farewell glance at the death camp. The tent marked out a dark triangle against the lighter background, and then vanished behind the sand.

The night descended sadly and silently over the earth. We tramped through loose sand, up and down, without seeing where we were going. I jumped down from my camel, lighted the lantern, and walked on in front to see where it was easiest for the camels to follow.

Then Islam reeled up to me and whispered that he could go no farther. I bade him farewell, cheered him up, told him to rest and then follow in my track, abandoning everything. The camels were lying half-dead with necks stretched out. Kasim alone was fit to accompany me farther. He took a spade and a pail and the paunch of the sheep. I had only my watch, compass, a penknife, a pen, and a scrap of paper, two small tins of lobster and chocolate, a small box, matches and ten cigarettes. But the food gave us little satisfaction, for when the mouth, palate, and throat are as dry as the outer skin it is impossible to swallow.

It was exactly twelve o'clock. We had been shipwrecked in the midst of the desert sea, and were now trying to reach a coast. The lantern stood burning beside Islam Bay, but the light was soon hidden by the dunes.

We were clad as lightly as possible. Kasim had a thin jacket, wide trousers, and boots, but he had forgotten his cap, so I lent him my pocket handkerchief to wind round his head. I wore a white Russian cap,

stiff Swedish shoes, woollen underclothing, and a white suit of thin cotton cloth. I had changed my clothes at the death camp that I might have a neat clean shroud if I died.

We pushed on with the energy of despair, but after two hours we were so sleepy that we had to rest a while. The coolness of the night woke us up at four o'clock, and we kept on the march till nine. Then we rested again and walked on farther till twelve o'clock, when we were again overcome by weariness and the burning heat of the day. In a sandy slope facing northwards Kasim digged out cool sand in which we burrowed stark naked with only our heads out. To protect ourselves from sunstroke we made a screen by hanging up clothes on the spade. At six o'clock we got up again and walked for seven hours. Our strength was giving way, and we had to rest more frequently. At one o'clock we were slumbering on a dune.

There we lay quite three hours, and then went on eastwards. I always held the compass in my hand. The next day had dawned, May 3, when Kasim stopped, caught hold of my shoulder, and pointed eastwards without saying a word. A small dark speck was seen in the distance; it was a green tamarisk! Its roots must go down to the water below the surface, or it could not live in the desert sea. We thanked God when we came up to it. We had now some hope of safety, and we chewed the soft needles of the tamarisks like beasts. We tarried a while under its slight shadow, and then walked till half-past nine, when we fell down with faintness at another bush.

We again undressed and buried ourselves in sand, lying without speaking a word for quite nine hours.

At dusk we dragged ourselves on again with halting steps. After three hours of march Kasim again stopped suddenly. Something dark peeped out from among the dunes—three fine poplars with sappy foliage. The leaves were too bitter to eat, but we rubbed them on the skin until it became moist.

Here we tried to dig a well, but the spade fell out of our powerless hands. We then lay down and scraped with our hands, but could not do much. Instead we collected all the dry branches we could find and made a blazing fire as a beacon for Islam, and to attract attention from the east, for we knew that a caravan road ran along the Khotan river.

At four o'clock on May 4 we moved on again, but after five hours we were utterly exhausted. We threw ourselves heedlessly on the sand, for Kasim was unable to dig the usual burrow. I wriggled naked into the cool dune and lay there ten hours without closing an eye.

When at last the shadows spread over the earth and I was ready to set out, Kasim murmured that he could go no farther. I did not even remember to bid him farewell when I went on my way alone through the darkness and sand. Just after midnight I sank down by a tamarisk. The stars twinkled as usual, and not a sound was audible. Only the beat of my heart and the ticking of my watch broke the awful silence. Then I heard a rustling sound in the sand. "Is that you, Kasim?" I asked. "Yes, sir," he whispered back. "Let us go a little farther," I said, and he followed me with trembling legs.

We were not troubled now so much by thirst, for our bodies had become as dry as parchment and seemed to have lost all feeling; but our strength was at an

end. We crawled for a long distance on our hands and feet, dazed and indifferent, as if we were walking in our sleep.

But soon we waked up into full consciousness. Dumb with astonishment we stopped before the trail of men. Shepherds from the river must have seen our fire the day before and have come to look for us. We followed the trail up a high dune where the sand was closely packed and the marks were more distinct. "It is our own trail," said Kasim in a despairing voice. We had gone round in a circle, and now we could do no more for a while. Sad and worn out, we fell down in the track.

It was May 5. We had slept half an hour. It was four o'clock, and a vague light heralding the ruddy dawn rose up above the eastern horizon. Kasim looked dreadfully ill; his tongue was swollen, white and dry, his lips bluish. He complained of a spasmodic hiccough that shook his whole body, a sign of the approach of death. The thick blood flowed sluggishly in his veins. Even the eyes and joints were dry. We had struggled bravely, but now the end was near.

But when the sun rose we saw a dark line on the eastern horizon. The sight filled us with thankfulness, for we knew that it must be the wood on the bank of the Khotan river. Now we exerted ourselves to the uttermost, for we must reach it before we sank with thirst and exhaustion. A number of poplars grew in a hollow. "Let us dig here; it is a long distance to the woods"; but the spade again slipped out of our hands, and we could only stumble and crawl on eastwards.

At last we were there. I seemed to be roused from a fearful dream, a terrible nightmare. Green and

luxuriant stood the trees in front of us, and between them grew grass and weeds where numerous spoors of wild animals were visible—tigers, wolves, foxes, stags, antelopes, gazelles, and hares. The birds were singing their morning song and insects buzzed in the air. Life and joyousness reigned everywhere.

It could not now be far to the river. We tried to pass through the wood, but were stopped by impenetrable brushwood and fallen trunks. Then we came to a path with plain traces of men and horses. We decided to follow it, for surely it would lead to the bank, but not even the hope of a speedy deliverance could enable us to keep on our feet. At nine o'clock, when the day was already burning hot, we tumbled down in the shade of a couple of poplars. Kasim could not last much longer. His senses were clouded. He gasped for breath and stared with vacant eyes at the sky. He made no answer even when I shook him. I took off my clothes and crept down into a hole between the tree roots. Scorpions inhabited the dry trees and their marks were visible everywhere, but the poisonous reptiles left me in peace.

Water at Last

I lay for ten hours wide awake. At seven o'clock I took the wooden haft of the spade and went alone through the wood, for Kasim could not move. I dropped down again and again on fallen trunks to rest; a few more staggering steps and again a rest on a stump. When I could not hold myself up, I crawled inch by inch through the brushwood, tearing my hands and clothes. It grew dusk and then dark in the wood. I felt sleep gradually creeping over me to rob me of life. For if I had fallen asleep now, I should

never have awakened again. My last struggle was, then, against drowsiness.

Then the wood suddenly came to an end and the bed of the Khotan river lay before me. But the bottom was dry, as dry as the sand in the desert! I was at the summer margin of the river, where water only flows when the snow melts on the mountains to the south. But I was not going to die on the bank; I would cross the whole bed before I gave myself up for lost. The bed was a mile and a quarter broad, a terrible distance for my strength. I walked slowly with the spade-handle for a stick, crawling for long distances and often resting and exerting all the force of my will to resist sleep. Hitherto we had been always making eastwards, but this night I walked involuntarily south-east. It was as though I were guided by an unseen hand.

The crescent moon threw a pale light over the dry riverbed. I went towards the middle and expected to see a silvery streak glisten on a sheet of water. After an interval, which seemed endless, I descried the line of wood on the eastern bank. It became more distinct. A fallen poplar lay projecting over a hollow in the river-bed and on the bank were close thickets of bushes and reeds. I rested once more. Was it possible that the whole bed was dry? I felt that all my remaining strength would be needed to reach the bank. Was I to die of thirst in the middle of a river-bed? I rose painfully to walk the last bit, but I had not taken many steps before I stopped short. A duck rose on whirring wings, I heard the plashing sound of water, and the next moment I stood at the edge of a fresh, cool, beautiful pool.

I fell on my knees and thanked God for my

marvellous escape. Then I took out my watch and felt my feeble pulse, which beat forty-nine. Then I drank, slowly at first and then more freely. A deal of water was needed to slake such a thirst; I drank and drank until at length I was satisfied. Then I sat down to rest and felt that I was reviving quickly. After a few minutes my pulse had risen to fifty-six. My hands, which had just been withered and hard as wood, softened, the blood flowed more easily through my veins and my forehead became moist. Life seemed more desirable and delightful than ever. Then I drank again, and thought of my wonderful deliverance. If I had passed fifty steps to the right or left of the pool, I should probably never have found it, or if I had crawled on in the wrong direction, I should have had to walk six miles to the next pool, which I could not have done before sleep with the death trance in its train came and carried me off.

Now my thoughts flew to the dying Kasim. He needed help at once, if his life was to be saved. Dipping my waterproof boots in the pool I filled them to the top, passed the straps over the ends of the spade shaft, and with this over my shoulder retraced my steps. It was pitch-dark in the wood and it was impossible to see the track. I called out "Kasim" with all the force of my lungs, but heard no answer. Then I sought out a dense clump of dried branches and brushwood and set it on fire. The flame shot up immediately, the pile of dry twigs crackled, burst and frizzled, the dried herbage was scorched by the draught from below, tongues of flame licked the poplar trunks, and it became as light as in the middle of the day, a yellowish red gleam illuminating the dark recesses of the wood. Kasim could not be far off, and must see the fire. Again I looked for the trail, but as I only got confused in the wood I stayed by the

fire, propped the boots against a root, laid myself down where the flames could not reach me, but where I was safe from tigers and other wild beasts, and slept soundly.

When day broke I found the trail. Kasim was lying where I left him. "I am dying," he whispered in a scarcely audible voice; but when I raised one of the boots to his lips, he roused himself up and drank, and emptied the other one also. Then we agreed to go together to the pool. It was impossible to turn back into the desert, for we had not eaten for a week, and now that our thirst was quenched we were attacked by hunger. Besides, we felt quite sure that the other men were dead some days ago.

Kasim was so exhausted that he could not go with me. As he was at any rate on the right track, and it was now most important to find something to eat, I went alone to the pool, drank, bathed, and rested, and then walked southwards. At nine o'clock a violent westerly storm arose, driving clouds of sand along the ground. After wandering three hours it occurred to me that it was not wise to leave the beneficent pool. I therefore turned back, but after half an hour only found instead a very small pool with indifferent water. It was no use wandering about in such a storm, for I could not see where I was going; the wind roared and whistled through the wood, and I was half dead with fatigue and hunger.

I therefore crept into a small thicket close to this pool, where I was out of reach of the storm, and making a pillow of my boots and cap, slept soundly and heavily. Since May 1 I had had no proper sleep. When I woke it was already dark, and the storm still howled through the wood. I was now so tortured by

hunger that I began to eat grass, flowers, and reed shoots. There were numbers of young frogs in the pool. They were bitter, but I pinched their necks and swallowed them whole. After eating my supper I collected a store of branches to keep up a fire during the night, and then I crept into my lair in the thicket and gazed into the fire for a couple of hours while the storm raged outside. Then I went to sleep again.

At dawn on May 7 I crept out of the thicket and decided to march southwards until I met with human beings. This time I took water with me in my boots, but after a few hours my feet were so sore and blistered that I had to bind them up in long strips of my shirt. At length to my delight I found a sheepfold on the bank; it had evidently not been used for a long time, but it showed that shepherds must live in the woods somewhere.

At noon heat and fatigue drove me into the wood again, where I ate a breakfast of grass and reeds. After a rest I wandered on again hour after hour towards the south, but at eight o'clock I could go no farther, and before it became quite dark I tried to make myself comfortable on a small space sheltered by poplars and bushes, and there as usual I lighted my camp fire. I had nothing else to do but lie and stare into the flames and listen to the curious mournful sounds in the wood. Sometimes I heard tapping steps and dry twigs cracking. It might be tigers, but I trusted that they would not venture to attack me just when I had been saved in such a remarkable manner.

I rose on May 8 while it was still dark, and sought for a path in the wood, but I had not gone far before the trees became scattered and came to an end, and

the dismal yellow desert lay before me. I knew it only too well, and made haste back to the river-bed. I rested during the hot hours of the day in the shadow of a poplar and then set off again. I now followed the right bank of the river, and shortly before sunset stopped dead before a remarkable sight —the fresh track of two barefooted men who had driven four asses northwards.

It was hopeless to try and overtake these wayfarers, and therefore I followed their track in the opposite direction. I travelled more quickly than usual, the evening was calm and still, twilight fell over the wood. At a jutting point of the bank I seemed to hear an unusual sound, and held my breath to listen. But the wood was still sad and dreary. "Perhaps it was a warbler or a thrush," I thought, and walked on. A little later I pulled up again. This time I heard quite plainly a man's voice and the low of a cow. I quickly pulled on my wet boots and rushed into the wood. A flock of sheep watched by its shepherd was feeding on an open glade among the trees. The man seemed petrified at first when he saw me, and then he turned on his heels and vanished among the brushwood.

After a while he came back with an older shepherd, and I gave them an account of my adventures and begged for bread. They did not know what to believe, but they took me to their hut and gave me maize bread and ewe's milk.

The best thing of all, however, was that three traders rode up next day, and I learned from them that some days previously they had discovered a dying man beside a white camel on the bank of the river. It was Islam Bay! They had given him water and food, and the following day both he and Kasim appeared in my

hut. Our delight was great, though we mourned for our comrades who had died of thirst in the desert.

VIII

THE DESERT WATERWAY (1899)

Down the Yarkand River

No doubt you remember the village of Merket, where we set out on pur fatal march through the Takla-makan desert in 1895. In September, 1899, I was again at this village with a large caravan and many servants, my plan on this occasion being to travel through the whole of Eastern Turkestan by water. The waterway I intended to use was the river which in its upper course is called the Yarkand, and in its lower the Tarim.

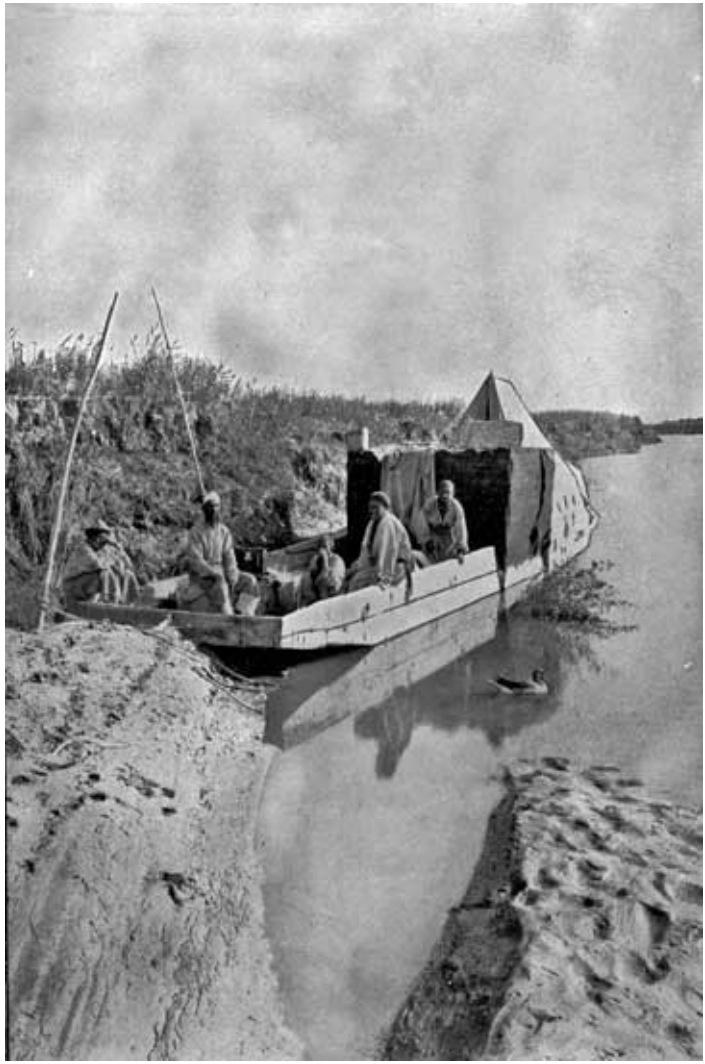


PLATE X. THE AUTHOR'S BOAT ON THE YARKAND RIVER.
The man with the white turban at the stern is Islam Bay.

At the village a great caravan route crosses the river, and flat ferry-boats convey travellers with their animals and goods from one bank to the other. I bought one of the ferry-boats, and had it converted into a floating home for our journey of more than a thousand miles (Plate X.). It was 36 feet long by 8-1/2 broad, and was like a huge trough built of rough planks. A floor of boards was laid in the bow sufficiently large to serve as a support for my tent. Behind this was built a cubical cabin of thin boards covered with sheets of black felt. Within it was furnished with a table and shelves, and window-frames with glass panes were let into the felt walls. Here I had all my photographic accessories, and here I intended to develop my plates.

When all was ready the ferry-boat was rolled down on logs into the river again. The tent was set up and its folds were spiked fast to the edges of the flooring. My bed and my boxes were arranged in the tent, a carpet was spread on the floor, and at the front opening was placed my writing-table, consisting of two boxes, whereon paper, pens, compass, and watch, field-glass and other things always lay ready. For a stool I had a smaller hide trunk.

Amidships our heavy baggage was piled up: sacks of flour and rice, boxes of sugar, tea, and groceries, saddles, weapons, and tools. The kitchen was at the stern, in charge of my faithful Islam Bay—for he was with me again.

When the ferry-boat was fully fitted up and ready to sail, it drew nine inches of water. We had also a small auxiliary boat to pilot the larger and inform us where treacherous sand-banks were hidden below the surface. Fruit, vegetables, sheep, and fowls were

carried on the smaller boat, which looked rather like a small farmyard. The heavy baggage that we did not need on the journey was packed on our camels, and their leader was ordered to meet me in three months' time near the termination of the river.

Our voyage began on September 17, 1899, the crew numbering seven, including Islam Bay and myself. Kader was a youth who helped Islam Bay by peeling potatoes, laying table, and fetching water from clear pools on the banks cut off from the river. In the bow stood Palta with a long pole, watching to thrust off if the boat went too near the bank. At the stern stood two other polemen, who helped to handle the boat. The small boat was managed by one man, Kasim, and as I sat at my writing-table I could see him pushing his vessel with his pole to right or left in search of the channel where the water was deepest and the current most rapid. Then we had two four-legged passengers on the larger boat, Dovlet and Yolldash. Dovlet means the "lucky one" and Yolldash "travelling companion." The latter had succeeded to the name of the dog which died in the Takla-makan desert.

The boat floats down with the current, following obediently the windings of the river, and the polemen are on the watch. On the banks grow small hawthorn bushes and tamarisks, interrupted by patches of reeds and small clumps of young trees, among which poplars always predominate. They are not the tall, slender poplars which tower proud as kings above other trees, but quite a dwarf kind with a round, irregular crown. When the day draws near to a close I give the order to stop. Palta thrusts his pole into the river bottom, and, throwing all his strength and weight on to it, forces the stern of the

boat to swing round to the land, where another of the crew jumps out on to the bank with a rope. He makes it fast round a stump, and our day's voyage is ended.

The gangway is pushed out and a fire is lighted in an open space among the trees, and soon the teapot and rice-pan are bubbling pleasantly. I remain sitting at my writing-table and see the moonlight playing in a streak on the surface of the river. All is quiet and silent around us, and even the midges have gone to rest. I hear only the brands crackling in the camp fire and the sand slipping down the neighbouring bank as the water laps against it. A dog barking in the distance is answered by Dovlet and Yolldash.

Now steps are heard on board, and Islam Bay brings my supper. The writing-table is converted into a dining-table, and he serves me up rice pudding with onions, carrots, and minced mutton, fresh bread, eggs, cucumbers, melons, and grapes. What more could a man want? It was very different when we were wandering on the endless sands. If I want to drink I have only to let down a cup into the river which gently ripples past the boat. The dogs keep me company, sitting with cocked ears waiting for a titbit. Then Islam comes and clears the table, I close the tent, creep into my berth, and enjoy life afloat on my own vessel, where it is only necessary to loosen a rope to be on the way again.

After a few days we come to a place where the river contracts and forces its way with great velocity between small islands and great heaps of stranded driftwood. Here Palta has plenty of work, for he has constantly to keep the boat off from some obstacle or other with the pole. Frequently we bump up against

poplar trunks which do not show above the water, and then the boat swings round in a moment. Then all the crew jump into the river and shove the boat off again.

A distant noise is heard, and soon becomes louder. In a moment we are in the midst of rapids, and it is too late to heave to. It is to be hoped that we shall not turn broadside on or we shall capsize. "Let her go down as she likes," I call out. All the poles are drawn up, and the boat flies along, gliding easily and smoothly over the boiling water.

Below the rapids the river widened out, and became so shallow that we stuck fast in blue clay. We pushed and pulled, but all to no purpose. Then all the baggage was carried ashore, and with our united strength we swung the boat round until the clay was loosened, and then the things were brought on board again.

Farther down, the river draws together again. The banks are lined with dense masses of fine old trees just beginning to turn yellow in the latter days of September. The boat seems as though it were gliding along a canal in a park. The woods are silent, not a leaf is moving, and the water flows noiselessly. The polemen have nothing to do. They sit cross-legged with one hand on the pole, which trails through the water; and only now and then have they to make a thrust to keep the boat in the middle of the stream.

Weeks passed, and the ferry-boat drifted still farther and farther down the river. Autumn had come, and the woods turned yellow and russet, and the leaves fell. We had no time to spare if we did not want to be caught fast in the ice before reaching the place where we had arranged to meet the caravan.

Therefore we started earlier in the morning and did not land until long after sunset each day. The solemn silence of a temple reigned around, only the quacking of a duck being heard occasionally or the noise of a fox stealing through the reeds. A herd of wild boars lay wallowing in the mud on the bank. When the boat glided noiselessly by they got up, looked at us a moment with the greatest astonishment, and dashed like a roaring whirlwind through the beds of cracking reeds. Deer grazed on the bank. They scented danger and turned round to make for their hiding-places in the wood. A roebuck swam across the stream a little in front of the boat. Islam lay with his gun in the bow ready to shoot, but the roebuck swam splendidly and, with a spring, was up on the bank and vanished like the wind. Sometimes we saw also fresh spoor of tigers at our camping-grounds, but we never succeeded in surprising one of them.

One morning, when we had not seen any natives for a long time, the smoke of a fire was seen on the bank. Some shepherds were watching their flocks, and their dogs began to bark. The men gazed at the ferry-boat with wonder and alarm as it floated nearer, and no doubt thought that it was something ghostly, for they faced about and ran with the dust flying about their sheepskin sandals. I sent two men ashore, but it was quite impossible to catch up with the runaways.

Farther down we passed through a district where several villages stood near the banks. They had learned of our coming through scouts, and when we arrived we were met by whole troops of horsemen. The village headmen were also present, and were invited on board, where they were regaled with tea

on the after-deck.

The Tarim

The farther we went the smaller became the river. The Yarkand-darya would never reach the lake, Lop-nor, where it discharges its water, if it did not receive a considerable tributary on the way. This tributary is called the Ak-su, or "White Water," and it comes foaming down from the Tien-shan, the high mountains to the north. After the rivers have mingled their waters, the united main stream is called the Tarim.

The weather gradually became colder. One morning a dense mist lay like a veil between the wooded banks, and all the trees, bushes, and plants, and the whole boat, were white with hoar frost. After this it was not long before the frost began to spread thin sheets of ice over the pools on the banks and the small cut-off creeks of stagnant water, and we had to press on as fast as we could to escape being frozen in. Breakfast was no longer laid on land, but on the after-deck of the ferry-boat, where we built a fireplace of clay, and round this the men sat in turn to warm themselves. At night we travelled long distances in the dark. We had persuaded two natives to go with us in their long, narrow canoes, and they rowed in front of us in the darkness with large Chinese paper lanterns on poles to show us where the deep channel ran.

The woods on the bank gradually thin out, and finally come to an end altogether, being replaced by huge sand-hills often as much as 200 feet high. This is the margin of the great sandy desert which occupies all the interior of Eastern Turkestan. The

people in the country round about are called Lopliks, and live to a great extent on fish.

During the last few days of November the temperature fell to 28.8° below freezing-point. The drift ice which floated down the river became thicker, and one morning the ferry-boat lay frozen in so fast we could walk on the ice around it. Out in the current, however, the water was open, and we broke asunder our fetters with axes and crowbars. A constant roar of grinding and scraping ice accompanied us all day long, and during the nights we had to anchor the ferry-boat out in the swiftest part of the current to prevent it being frozen in.

On December 7 broad fringes of ice lay along both banks, and all day we danced among drifting ice as in a bath of broken crockery. At night we had a whole flotilla of canoes with lanterns and torches to clear the way, when suddenly the boat swung round with a bump, and we found that the river was frozen over right across. This did not disturb us, for on the bank we saw the flames of a wood fire, and found that it was burning at the camp of our camel caravan.

The Wandering Lake

The place where the ferry-boat was frozen in for the winter is called New Lake (see map, p. 90). Just at this spot the Tarim bends southwards, falling farther down into a very shallow lake called Lop-nor. The whole country here is so flat that with the naked eye no inequalities can be detected. Therefore the river often changes its bed, sometimes for short and sometimes for long distances. Formerly the river did not bend southwards, but proceeded straight on

eastwards, terminating in another lake also called Lop-nor, which lay in the northern part of the desert, and which is mentioned in old Chinese geographies.

The peculiarity of Lop-nor is, then, that the lake moves about, and, in conjunction with the lower course of the Tarim, swings like a pendulum between north and south. I made many excursions in that part of the desert where the Lop-nor formerly lay, and mapped out the old river-bed and the old lake. There I discovered ruins of villages and farms, ancient canoes and household utensils, tree trunks dry as tinder and roots of reeds and rushes. In a mud house I found also a whole collection of Chinese manuscripts, which threw much light on the state of the country at the time when men could exist there. These writings were more than 1600 years old.

The explanation of the lake's wanderings is this. At the time of high water the Tarim is always full of silt, and the old lake was very shallow. The lake, therefore, was silted up with mud and decaying vegetation, and by the same process the bed of the river was raised. At last came the time when the Tarim sought for an outlet to the south, where the country was somewhat lower. The old bed was dried up by degrees and the water in the lake evaporated. The sheet of water remained, indeed, for a long time, but it shrank up from year to year. At last there was not a drop of water left, and the whole country dried up. The poplar woods perished, and the reeds withered and were blown away by the wind. The men left their huts and moved down the new water channel to settle at the new lake, where they erected new huts. The Tarim and Lop-nor had swung like a pendulum to the south, and men, animals, and plants were obliged to follow. The same thing then

occurred in the south. The new river and lake were silted up and the water returned northwards. Thus the water swung repeatedly from north to south, but of course many hundreds of years elapsed between the vibrations.

At the present day the lake lies in the southern part of the desert; it is almost entirely overgrown with reeds, and the poplar woods grow only by the river. The few natives are partly herdsmen, partly fishermen; they are of Turkish race and profess the religion of Islam; they are kind-hearted and peaceable, and show great hospitality to strangers. Their huts are constructed of bundles of reeds bound together; the ground within is covered with reed mats, and the roof consists of boughs covered with reeds. The men spend a large part of their time in canoes, which are hollowed poplar trunks, and are therefore long, narrow, and round at the bottom. The oars have broad blades and drive the canoes at a rapid pace. Narrow passages are kept open through the reeds, and along these the canoes wind like eels. The men are very skilful in catching fish, and in spring they live also on eggs, which they collect from the nests of the wild geese among the reeds. The reeds grow so thickly that when they have been broken here and there by a storm one can walk on them with six feet of water beneath.

Tigers were formerly common on the banks of Lop-nor, and the natives used to hunt them in a singular manner. When a tiger had done mischief among the cattle, the men would all assemble from the huts in the neighbourhood at the thickets on the bank of the river where they knew that the tiger was in hiding. They close up round him from the land side, leaving the river-bank open. Their only weapons are poles

and sticks, so they set fire to the copse in order to make the beast leave his lair. When the tiger finds that there is no way out on the land side, he takes to the water to swim to some islet or to the other shore of the lake, but before he is far out half a dozen canoes cut through the water and surround him. The men are armed only with their oars. The canoes can move much faster than the tiger, and one shoots quickly past him, and the men in the bow push his head under water with their oar-blades. Before the tiger has risen again the canoe is out of reach. The tiger snorts and growls and puffs madly, but in a moment another canoe is upon him and another oar thrusts him down deeper than before. This time he has barely reached the surface before a third canoe glides up, and his head is again shoved under water. Soon the tiger begins to tire and to gasp for breath. He has no opportunity of using his fangs and claws, and can only struggle for his life by swimming. Now the first canoe has circled round again, and the man in the bow pushes the tiger down with all his strength and holds him under water as long as he can. This goes on until the tiger can struggle no longer and is drowned. Then a rope is tied round his neck, and with much jubilation he is towed to the shore.

The climate at Lop-nor is very different in winter and summer. In winter the temperature falls to 22° below zero, and rises in summer to 104°. Large variations like this always occur in the interior of the great continents of the world, except in the heart of Africa, close to the equator, where it is always warm. On the coasts the variation is smaller, for the sea cools the air in summer and warms it in winter. In the Lop-nor country the rivers and lakes are frozen hard in winter, but in summer suffocating heat prevails. Men

are tortured by great swarms of gnats, and cattle are devoured by gadflies. It has even happened that animals have been so seriously attacked by gadflies that they have died from loss of blood. Fortunately, the flies come out only as long as the sun is up, and therefore the animals are left in peace at night. During the day horses and camels must be kept among the reeds, where the flies do not come.

Incredible numbers of wild geese and ducks, swans and other swimming birds breed at Lop-nor, and the open water is studded all over with chattering birds. In late autumn they fly southwards through Tibet, and in winter the lakes are quiet, with yellow reeds sticking up through the ice.

Wild Camels

The level region over which the Lop-nor has wandered for thousands of years from north to south is called the Lop desert. Its stillness is broken only from time to time by easterly storms which roll like thunder over the yellow clay ground. In the course of ages these strong spring storms have ploughed out channels and furrows in the clay, but otherwise the desert is as level as a frozen sea, the places where Lop-nor formerly spread out its water being marked only by pink mollusc shells.

On the north the Lop desert is bounded by the easternmost chains of the Tien-shan, which the Chinese also call the "Dry Mountains." They deserve the name, for their sides are hardly ever washed by rain; but at their southern foot a few salt springs are to be found. Round them grow reeds and tamarisks, and even in other places near the mountains some vegetation struggles for existence.

This is the country of wild camels. Wild camels live in herds of half a dozen head. The leader is a dark-brown stallion; the mares are lighter in colour. Their wool is so soft and fine that it is a pleasure to pass one's hand over it. Several herds or families are often seen grazing on the same spot. They look well-fed, and the two humps are firm and full of fat. In spring and summer they can go without water for eight days, in winter for two weeks. For innumerable generations they have known where to find the springs: the mothers take their young ones to them, and when the youngsters grow up they in their turn show the springs to their foals. They drink the water, however salt it may be, for they have no choice, but they do not stay long at the meadows by the springs, for their instinct tells them that where water is to be found there the danger is great that their enemies may also come to drink.

Against danger they have no other protection than their sharply developed senses. They can scent men at a distance of twelve miles. They know the odour of a camping-ground long after the ashes have been swept away by the wind, and they avoid the spot. Tame camels passing through their country excite their suspicion; they do not smell like wild ones. They are shy and restless and do not remain long at one pasture, even if no danger threatens.

In some districts they are so numerous that the traveller cannot march for two minutes without crossing a spoor. Where the tracks all converge towards a valley between two hills, they probably lead to a spring. On one occasion when our tame camels had not had water for eleven days, they were saved by following the tracks of their wild relations.

IX

IN THE FORBIDDEN LAND (1901-2, 1906-8)

The Plateau of Tibet

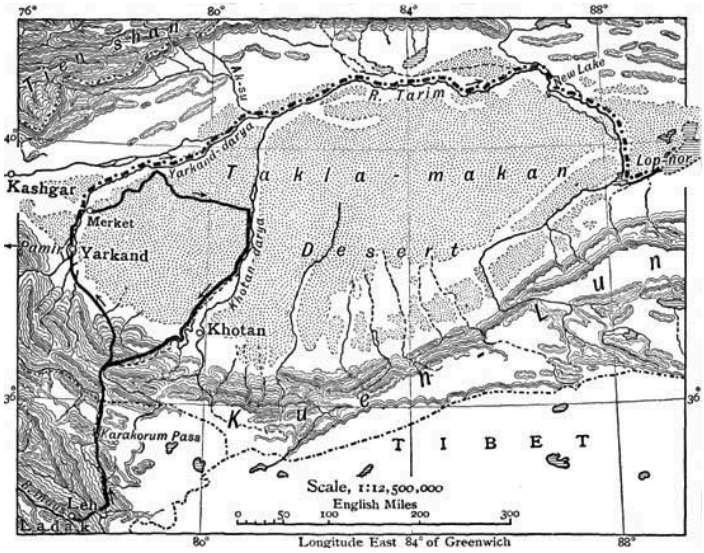
South of Eastern Turkestan lies the huge upheaval of the earth's crust which is called Tibet. Its other boundaries are: on the east, China proper; on the south, Burma, Bhutan, Sikkim, Nepal, and British India; on the west, Kashmir and Ladak. Political boundaries, however, are of little and only temporary importance. They seldom remain unchanged from century to century, for from the earliest times a nation as it increased in strength has always extended its domain at the expense of its neighbours.

The earth's crust, on the other hand, remains unchanged—if we disregard the continual work performed by rain and streams, weather and wind, which tends to fill up the hollows with mud and sand, to cut the valleys ever deeper, and to diminish the mountain masses by weathering. However powerfully these forces may have acted, Tibet still remains the highest mountain land of the world.

If you lay your left hand on a map of Tibet so that the part nearest the wrist touches the Pamir, the flat of the hand covers the region of central Tibet, where

there is no drainage to the ocean, but where the country falls instead into a number of isolated lake basins. Your thumb will represent the Himalayas, the forefinger the Trans-Himalaya, the middle finger the Karakorum, the third finger the Arka-tagh, and the little finger the Kuen-lun. The highest mountain ranges of the world are under your fingers; and also, as the longest finger is the middle of the five, so the Karakorum is the central range of Tibetan mountains.

Now let a little stream of water fall on the back of your hand as you hold it on a table with the fingers spread out. You will see that a tiny quantity remains on the back of the hand, but that the greater part runs away between the fingers. Thus it is in Tibet. The water poured on your hand represents the rain of the south-west monsoon, which falls more abundantly on the eastern part of the country than on the western. The water which stays on the back of the hand represents the small scattered salt lakes on the plateau country which has no drainage to the sea, while the large quantity which runs off between your fingers represents the large rivers which flow between the ranges.



TIBET.

Of these rivers two stream eastwards: the Yellow River (the Hwang-ho), which falls into the Yellow Sea, and the Blue River (the Yang-tse-kiang), which empties its waters into the Eastern Sea. The others run southwards, the Mekong into the China Sea, the Salwin, Irawaddy, and Brahmaputra into the great inlet of the Indian Ocean which is called the Bay of Bengal. A large quantity of water runs off along the outer side of your thumb; this is the Ganges, which comes down from the upper valleys of the Himalayas. And, far to the west, nearest to the wrist, you find two rivers with which you are already acquainted: the Indus, which flows southwards into the Arabian Sea, and the Tarim, which runs north and east and falls into Lop-nor.

The Himalayas are the loftiest range on earth, and among their crests rise the highest peaks in the

world. Three of them should be remembered, for they are so well known: Mount Everest, which, with its 29,000 feet, is the very highest summit in the world; Kinchinjunga (28,200 feet), and Dhwalagiri (26,800 feet). Mount Godwin-Austen in the Karakorum is only about 650 feet lower than Mount Everest.

The Himalayas present a grand spectacle when seen from the south. No other mountain region in the world can vie with it in awe-inspiring beauty. If we travel by rail from Calcutta up to Sikkim we see the snow-clad crest of the Himalayas in front and above us, and Kinchinjunga like a dazzling white pinnacle surmounting the whole. We see the sharply defined snow limit, and the steep, wooded slopes below. If it is early in the morning and the weather is fine, the jagged, snowy crest shines brightly in the sun, while the flanks and valleys are still hidden in dense shadow. And during the journey to the great heights we shall notice that the flora changes much in the same way as it does from South Italy to the North Cape. The last forms of vegetation to contend against the cold are mosses and lichens. Then we come to the snow limit, where the mountains and rocks are bare.

North and Central Tibet have a mean elevation of 16,000 feet; that is to say, one is almost always at a greater height than the summit of Mont Blanc. Where the plateau country is so exceedingly high the mountain ranges seem quite insignificant. We have spoken of five great ranges, but between these He many smaller, all running east and west.

What a fortunate thing it is for the people of Asia that the interior of the continent rises into the

tremendous boss called Tibet! Against its heights the water vapour of the monsoon is cooled and condensed, so that it falls in the form of rain and feeds the great rivers. Were the country flat like northern India or Eastern Turkestan, immense tracts of the interior of Asia would be complete desert, as in the interior of Arabia; but as it is, the water is collected in the mountains and runs off in all directions. Along the rivers the population is densest; around them spring up cities and states, and from them canals branch off to water fields and gardens.

You know, of course, that Asia is the largest division of land in the world, and that Europe is little more than a peninsula jutting out westwards from the trunk of Asia. Indeed, Asia is not much smaller than Europe, Africa, and Australia put together. Of the 1550 millions of men who inhabit the world, 830 millions, or more than half, live in Asia. If, now, you take out your atlas and compare southern Europe and southern Asia, you will find some very curious similarities. From both these continents three large peninsulas point southwards. The Iberian Peninsula, consisting of Spain and Portugal, corresponds to the Arabian Peninsula, both being quadrangular and massive. Italy corresponds to the Indian Peninsula, both having large islands near their extremities, Sicily and Ceylon. The Balkan Peninsula corresponds to Further India (the Malay Peninsula), both having irregular, deeply indented coasts with a world of islands to the south-east, the Archipelago and the Sunda Islands.

Tibet may be likened to a fortress surrounded by mighty ramparts. To the south the ramparts are double, the Himalayas and the Trans-Himalaya, and between the two is a moat partly filled with water—

the Upper Indus and the Upper Brahmaputra. And Tibet is really a fortress and a defence in the rear of China. It is easily conceivable that a country surrounded by such huge mountain ranges must be very difficult of access, and the number of Europeans who have crossed Tibet is very small.

The inaccessible position of the country has also had an influence on the people. Isolated and without communication with their neighbours, the people have taken their own course and have developed in a peculiar manner within their own boundaries. The northern third of the country is uninhabited. I once travelled for three months, and on another occasion for eighty-one days, without seeing a single human being. The middle part is thinly peopled by herdsmen, who roam about with their flocks of sheep and yaks, and live in black tents. Many of them also are skilful hunters of yaks and antelopes. Others gather salt on the dried-up beds of lakes, pack it in double-ended bags, and carry it on sheep to barter it for barley in the southern districts, which are the home of the great majority of Tibet's two or three million inhabitants. There are to be found not only nomads, but also settled people, dwelling in small villages of stone huts in the deeper river valleys, especially that of the Brahmaputra, and cultivating barley. A few towns also exist here; they are all small, the largest being Lhasa and Shigatse.

When our journey takes us to India again we shall have an opportunity of learning about the religion of Buddha, which is called Buddhism. In a different form this religious creed found its way into Tibet a thousand years ago. Before this time a sort of natural religion prevailed, which peopled the mountains, rivers, lakes, and air with demons and spirits. Much

of the old superstition was absorbed into the new teaching, and the combination is known by the name of Lamaism. There are 620 millions of Christians in the world and 400 million Buddhists; and of the Buddhists all the Tibetans and Mongolians, the Buriats in eastern Siberia, the Kalmukhs on the Volga, the peoples of Ladak, northern Nepal, Sikkim, and Bhutan are Lamaists.

They have a great number of monks and priests, each of whom is called a Lama. The principal one is the Dalai Lama, in Lhasa, but almost on a par with him is the Tashi Lama, the head of Tashi-lunpo, the large monastery at Shigatse. The third in rank is the High Lama at Urga in northern Mongolia. These three and some others are incarnated deities. The Dalai Lama never dies; the god that dwells in him merely changes his earthly body, just as a snake when it casts its skin. When a Dalai Lama dies it means that the divinity, his soul, sets out on its wanderings and passes into the body of a boy. When the boy is found he becomes the Dalai Lama of Lhasa. Lamaists believe, then, in the transmigration of souls, and the end, the fullest perfection, is peace in Nirvana.

There are many monasteries and nunneries in the upper Brahmaputra valley. The temple halls are adorned with images of the gods in metal or gilded clay, and butter lamps burn day and night in front of them. Monks and nuns cannot marry, but among the ordinary people the singular custom prevails that a wife can have two or several husbands. Among Mohammedans the case is just the reverse: men can have several wives.

Attempt to reach Lhasa

It was from Lop-nor in the year 1901 that I penetrated into this lofty mountain land for the third time. The summer had just set in with its suffocating dust storms, and we longed to get up into the fresh, pure air. The caravan was large, for I had sixteen Mohammedan servants from Eastern Turkestan, two Russian and two Buriat Cossacks, and a Mongolian Lama from Urga. Provisions for seven months, tents, furs, beds, weapons, and boxes were carried by 39 camels, 45 horses and mules, and 60 asses; and we also had 50 sheep for food, several dogs, and a tame stag.

When all was ready we set out towards the lofty mountains and crossed one range after another. When we reached the great heights the caravan lost strength day by day. The atmosphere is so rare that a man cannot breathe without an effort, and the slightest movement produces palpitation of the heart. The grazing becomes more scanty the higher you go, and many of the caravan animals succumbed. At last we seldom travelled more than twelve miles in a day.

After forty-four days' march due southwards we came to a part of the country where footprints of men were seen in several places, and Lhasa was only 300 miles away. Up to this time all Europeans who had tried to reach the holy city had been forced by Tibetan horsemen to turn back. The Tibetans are at bottom a good-tempered, decent people, but they will not allow any European to enter their country. They have heard that India and Central Asia have been conquered by white men, and fear that the same fate may befall Tibet. Two hundred years ago, indeed, Catholic missionaries lived in Lhasa, and the town was visited in 1845 by the famous priests Huc and Gabet from France. Since then two Europeans

who had made the attempt to reach the place had been murdered, and others had to turn back without success.

Now it was my turn to try my luck. My plan was to travel in disguise with only two followers. One was the Mongolian Lama, the other the Buriat Cossack, Shagdur. The Buriats are of Mongol race, speak Mongolian, and are Lamaists. They have narrow, rather oblique eyes, prominent cheek-bones, and thick lips. The dress of both peoples is the same—a skin coat with long sleeves and a waistbelt, a cap, and a pair of boots with turned-up toes. My costume was of exactly the same kind, and everything we took with us—tent, boxes, cooking utensils, and provisions—was of Mongolian style and make. The European articles I required—instruments, writing materials, and a field-glass—were carefully packed in a box. For defence we had two Russian rifles and a Swedish revolver. Of the caravan animals, five mules and four horses, as well as two dogs, Tiger and Lilliput, were to go with us. I rode a handsome white horse, Shagdur a tall yellow horse, and the Lama a small greyish-yellow mule. The baggage animals were led by my men and I rode behind. During the first two days we had a Mohammedan with us, Ördek, but he was to go back to headquarters, where all the rest of the caravan were ordered to await our return.

We were to ride south-eastwards and endeavour to strike the great Mongolian pilgrim route to Lhasa. Many Mongolians betake themselves annually in large armed caravans to the holy city to pay homage to the Dalai Lama, and obtain a blessing from him and the Tashi Lama. Perhaps it was wrong of me to give myself out for a Lamaist pilgrim, but there

seemed no other means of getting to the forbidden city.

We left the main camp on July 27, and those we left behind did not expect ever to see us again. The first day we did not see a living thing, and the second day we rode twenty-five miles farther without hindrance. Our camp that day was situated on open ground beside two lakes, and to the south-east stood some small hills, in the neighbourhood of which our animals grazed. Ördek was to watch them during the night in order that we might have a good sleep, for when he left us we should have to guard them ourselves.

Here my disguise was improved. My head was shaved so that it shone like a billiard ball. Only the eyebrows were left. Then the Lama rubbed fat, soot, and brown colouring-matter into the skin, and when I looked in a small hand-glass I could hardly recognise myself; but I seemed to have a certain resemblance to my two Lamaist retainers.

In the afternoon a storm broke out from the north, and we crept early into our little thin tent and slept quietly. At midnight Ördek crept into the tent and whispered in a trembling voice that robbers were about. We seized our weapons and rushed out. The storm was still raging, and the moon shone fitfully between the riven clouds. We were too late. With some difficulty we made out two horsemen on the top of the hills driving two loose horses before them —we found afterwards that one was my favourite white horse, the other Shagdur's yellow one. Shagdur sent a bullet after the scoundrels, but it only hastened their pace.

It was still dark, but there was no more sleep for us.

We settled ourselves round a small blaze, boiled rice and tea, and lighted our pipes. When the sun rose we were ready to go forward. First we examined the tracks of the thieves and found that they had come down on us with the wind, and had thus eluded the watchfulness of the dogs. One of the men had crept along a rain furrow right among the grazing horses, and, jumping up, had frightened the best two off to leeward. There a mounted Tibetan had taken them in hand and chased them on in front of him. The third had waited with his comrade's horse and his own, and then he also had made off. They had no doubt been watching us all day. Perhaps they already knew that we came from my headquarters, and they might even send a warning to Lhasa.

Ördek was beside himself with fright at having to make the two days' journey back on foot and quite alone. We heard afterwards that he did not dare to go back on our trail, but sneaked like a wild cat along all the furrows, longing for night; but when darkness came he was still more terrified and thought that every stone was a lurking villain. A couple of wild asses nearly frightened him out of his senses, and made him scuttle like a hedgehog into a ravine. When he arrived in the darkness of night at the main camp, the night watchman took him for a stranger and raised his gun. But Ördek shouted and waved his arms, and when he got to his tent he lay down and slept heavily for two whole days.

We three pilgrims rode on south-eastwards, and pitched our tent on open ground by a brook twenty-five miles farther on. Our positions were now reversed; Shagdur was the important man and I was only a mule-driver. With the Cossacks I always spoke Russian, but now no language must be used but

Mongolian, which the Lama had been teaching me for a long time previously. After dinner I slept till eight o'clock in the evening, and when I awoke I found my two comrades in a state of the greatest anxiety, for they had seen three Tibetan horsemen spying upon us from a long distance. We must therefore expect fresh trouble at any moment.

The night was divided into three watches, from nine o'clock to midnight, midnight to three o'clock, and three o'clock to six o'clock, and usually I took the first and the Lama the last. The animals were tethered to a rope fastened to the ground in the lee of the tent, and Tiger was tied up in front of them and Lilliput behind them.

At half-past eight Shagdur and the Lama were asleep in the tent, and my first night watch began. I strolled backwards and forwards between Tiger and Lilliput, who whined with pleasure when I stroked them. The sky was covered with dense black clouds, lighted from within by flashes of lightning, while thunder rolled around us and rain streamed down in a perfect deluge. It beat and rang on the Mongolian stewpans left out at the fireplace. Sometimes I tried to get a little shelter in the tent opening, but as soon as the dogs growled I had to hurry out again.

At last it is midnight and my watch is at an end; but Shagdur is sleeping so soundly that I cannot find it in my heart to waken him. I am just thinking of shortening his watch by half an hour when both dogs begin to bark furiously. The Lama wakes up and rushes out, and we steal off with our weapons in the direction in which we hear the tramp of a horse going away through the mud. In a little while all is quiet again, and the dogs cease to bark. I wake up

Shagdur and creep into my berth in my wet coat.

Next day we travel on under a sky as heavy as lead. No human beings or nomad tents are to be seen, but we find numerous tracks of flocks of sheep and yaks, and old camping-grounds. The danger of meeting people increased hourly, and so did my anxiety as to how the Tibetans would treat us when we were at last discovered.

On July 31 the rain was still pouring down. We were following a clear, well-trodden path, along which a herd of yaks had recently been driven. After a while we came up with a party of Tangut pilgrims, with fifty yaks, two horses, and three dogs. The Tanguts are a nomadic people in northeastern Tibet, and almost every second Tangut is also a robber. We passed them safely, however, and for the first time encamped near a Tibetan nomad tent occupied by a young man and two women.

While the Lama was talking with these people, the owner of the tent came up and was much astonished to find an unexpected visitor. He followed the Lama to our tent and sat down on the wet ground outside the entrance. His name was Sampo Singi, and he was the dirtiest fellow I ever saw in my life. The rain-water dropped from his matted hair on to the ragged cloak he wore; he wore felt boots but no trousers, which indeed almost all Tibetan nomads regard as quite, superfluous.

Sampo Singi blew his nose with his fingers, making a loud noise, and he did it so often that I began to think that it was some form of politeness. To make sure I followed his example. He showed not the slightest suspicion, only looked at our things and gave us the information we wanted. We had a

journey of eight days more to Lhasa, he assured us. Then Shagdur gave him a pinch of snuff which made him sneeze at least fifty times. We laughed at him when he asked whether we put pepper in our snuff, whereupon, in order to keep up our story, Shagdur roared at me, "Do not sit here and stare, boy; go and drive in the cattle." I started up at once, and had a terrible job to get the animals in to the camp.

We had an undisturbed night, thanks to the neighbourhood of the nomads, for they too had fierce dogs and arms. Early in the morning Sampo came with another man and a woman to visit us. We had asked if we might buy some food from them, and they brought several choice things with them—a sheep, a large piece of fat, a bowl of sour milk, a wooden bowl of powdered cheese, a can of milk, and a lump of yellow cream cheese. Then came the question of payment. Our money consisted of Chinese silver pieces, which are valued by weight, and are weighed out with a pair of small scales. Sampo Singi, however, would take only silver coins from Lhasa, of which we had none. Fortunately I had provided myself with two packages of blue Chinese silken material in Turkestan, and a length of that is a substitute for silver of all kinds. The Tibetans became quite excited when they heard the rustle of the silk, and after the usual haggling and bargaining we came to an agreement.

The sheep was then slaughtered, some fat pieces were fried over the fire, and after a solid breakfast, of which a share was bestowed on the dogs, we bade farewell to the Tibetans and rode on through the valley, still in pouring rain. Soon we came to the right bank of a broad river which was composed of about twenty arms, four of which were each as large

as an ordinary stream. Without hesitation our courageous little Lama rode straight out into the rapid turbid current, and Shagdur and I followed. When we had crossed about half the river we rested a while on a small mud flat, from which neither bank could be seen owing to the rain. On all sides we were surrounded by swiftly flowing water, yet it seemed as if the water was standing still while the small sandbank rushed up the river at a terrific pace.

The Lama again started off with his mule into the water, but he had not gone many steps before the water rose to the root of the animal's tail. He was also leading the mule which carried our two hide trunks, which until the water soaked into them acted like corks. In this way the mule lost her footing on the bottom of the river, swung round, and was quickly carried down-stream. We saw her disappear in the rain and thought that it was certainly her last journey, but she extricated herself in a marvellous manner. Near the left bank of the river she managed to get her hoofs on the bottom again, and clambered up; and what was most singular, the two trunks were still on her back.

At length we all got safely across, and rode on. My boots squelched, and water dropped from the corners of the boxes. Our camp that evening was truly wretched—not a dry stitch on us, continuous rain, almost impossible to make a fire. At length, however, we succeeded in keeping alight a small smoking fire of dung. That night I did not keep watch a minute after midnight, but waked up Shagdur mercilessly and crept into bed.

On August 2 we made only fifteen and a half miles. The road was now broad and easy to follow. On the

slope of a hill was encamped a large tea caravan; its twenty-five men were sitting round their fires, while the three hundred yaks were grazing close at hand. The bales of tea were stacked up in huge piles; it was Chinese tea of poor quality compressed into cakes like bricks, and therefore called "brick-tea." Every cake is wrapped in red paper, and about twenty cakes are sewed up together into a hide tightly bound with rope. The caravan was bound for Shigatse. As we rode by, several of the men came up to us and put some impertinent and inconvenient questions. They were well armed and looked like robbers, so we politely refused their proposal that we should travel together southwards. We pitched our camp a little farther on, and next morning we saw this curious and singular caravan pass by. It was a great contrast to the fine camel caravans of Persia and Turkestan, for it marched like a regiment in separate detachments of thirty or forty yaks each. The men walked, whistling and uttering short sharp cries; ten of them carried guns slung on their backs, and all were bareheaded, sunburnt, and dirty.

The whole of the next day we remained where we were in order to dry our things, and the Lama again stained my head down to the neck and in the ears. The critical moment was approaching.

On August 4 we met a caravan of about a hundred yaks, accompanied by armed men in tall yellow hats; but they took us for ordinary pilgrims and did not trouble themselves about us. Then we rode past several tents, and when we reached the top of the next pass we saw that tents lay scattered about on the plain like black spots, fourteen together in one place. We were now on the great highway to Lhasa.

The next day we came to a flat open valley, where there were twelve tents. Three Tibetans came to our tent there at dusk, and had a long conversation with the Lama, who was the only one of us who understood Tibetan. When he came back to us he was quite overcome with fright. One of the three men, who was a chief, had told him that information had come from yak-hunters in the north that a large European caravan was on the way. He had a suspicion that one of us might be a white man, and he ordered us on no account to move from where we were. In fact, we were prisoners, and with great anxiety we awaited the morning, when our fate would be decided. All night a watch was kept round our tent, as we knew by the fires, and next day we were visited by several parties, both influential chiefs and ordinary nomads, who warned us, if we valued our lives, to wait there till the Governor of the Province arrived.

In the meantime they did all they could to frighten us. Troops of horsemen in close order dashed straight towards our tent, as if they meant to stamp us into the earth, and so finish us off at once. On they rushed, the horses' hoofs ringing on the bare ground and the riders brandishing their swords and lances above their heads and uttering the wildest shrieks. When they were so near that the mud was splashed on to the tent, they suddenly opened out to right and left, and returned in the same wild career to the starting-point. This martial manoeuvre was repeated several times.

During the following days, however, they behaved in a more peaceful fashion, and eventually we came to be on quite a friendly footing with most of our neighbours. They visited us constantly, gave us

butter, milk, and fat, and when it rained crept coolly into our tent, which became so crowded that we could hardly find room for ourselves. They informed us that the Dalai Lama had given orders that no harm should be done to us, and we saw that messengers on horseback rode off daily along the roads leading to Lhasa and the Governor's village. We did not know where our seven baggage and riding animals were, but we made it clear to the Tibetans that, as they had stopped us against our will, they must be answerable for the safety of our animals and possessions.

On August 9 things at last began to look lively. A whole village of tents sprang up at some distance from us, and round the new tents swarmed Tibetans on foot and horseback. A Mongolian interpreter escorted by some horsemen came to our tent.

"The Governor, Kamba Bombo, is here, and invites you to-day to a feast in his tent."

"Greet Kamba Bombo," I answered, "but tell him that it is usual first to pay a visit to the guests one invites."

"You must come," went on the interpreter; "a sheep roasted whole is placed in the middle of the tent, surrounded by bowls of roasted meal and tea. He awaits you."

"We do not leave our camp. If Kamba Bombo wishes to see us he can come here."

"If you will not come with me I cannot be responsible for you to the Governor. He has ridden day and night to talk with you. I beg you to come with me."

"If Kamba Bombo has anything to say to us, he is

welcome. We ask nothing from him, only to travel to Lhasa as peaceful pilgrims."

Two hours later the Tibetans came back again in a long dark line of horsemen, the Governor riding on a large white mule in their midst. His retinue consisted of officials, priests, and officers in red and blue cloaks carrying guns, swords, and lances, wearing turbans or light-coloured hats, and riding on silver-studded saddles.

When they came up, carpets and cushions were spread on the ground, and on these Kamba Bombo took his seat. I went out to him and invited him into our poor tent, where he occupied the seat of honour, a maize sack. He might be forty years old, looked merry and jovial, but also pale and tired. When he took off his long red cloak and his *bashlik*, he appeared in a splendid dress of yellow Chinese silk, and his boots were of green velvet.

The interview began at once, and each of us did his best to talk the other down. The end of the matter was a clear declaration on his part that if we tried to move a step in the direction of Lhasa our heads should be cut off, no matter who we were. We did our best, both that day and the next, to get this decision altered, but it was no use and we had to yield to superior force.

So we turned back on the long road through dreary Tibet, and eventually regained our headquarters in safety.

The Tashi Lama

Thus it was that we came back to the little town of Leh, the capital of Ladak, and again saw the winter

caravans which come over the lofty mountains from Eastern Turkestan on their way with goods to Kashmir. Then several years passed, but in August, 1906, I was once more in Leh, having travelled (as has been described) across Europe to Constantinople, over the Black Sea, through Persia and Baluchistan, then by rail to Rawalpindi, in a tonga to Kashmir, and lastly on horseback to Leh. On this occasion the caravan consisted of twenty-seven men and nearly a hundred mules and horses, besides thirty hired horses, which were to turn back when the provisions they carried had been consumed.

Our course lay over the lofty mountains in northern Tibet, and for eighty-one days we did not see a single human being. But when we turned off to the right and came to more southern districts of the country, we met with Tibetan hunters and nomads, from whom we purchased tame yaks and sheep, for the greater part of our animals had perished owing to the rarefied air, the poor and scanty pasture, and the cold and the wind. The temperature had on one occasion fallen as low as 40° below zero.

After wandering for about six months we came to the Upper Brahmaputra, which is the only place where the Tibetans use boats, if indeed they can be called boats at all. They simply take four yak hides, stretch them over a framework of thin curved ribs and sew them together, and then the boat is ready; but it is buoyant and floats lightly on the water. When we were only a day's journey from Shigatse, the second town of Tibet, the caravan was ferried across the river. I myself with two of my servants took my seat in a hide boat, dexterously managed by a Tibetan, and we drifted down the Brahmaputra at a swinging pace.

A number of other boats were following the same fine waterway. They were full of pilgrims flocking to the great Lama temple in Shigatse. Two days later was the New Year of the country, and then the Lamaists celebrate their greatest festival. Pilgrims stream from far and near to the holy town. Round their necks they wear small images of their gods or wonder-working charms written on paper and enclosed in small cases, and many of them turn small praying mills, which are filled inside with prayers written on long strips of paper. When the mills revolve all these prayers ascend up to the ears of the gods—so easy is it to pray in Tibet! All the time a man can continue his conversation with his fellow-travellers.

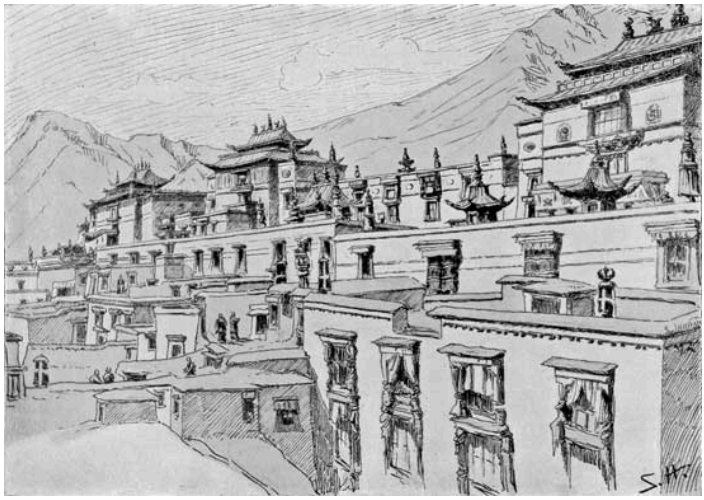


PLATE XI. TASHI-LUNPO.
From a sketch by the Author.

Many of the pilgrims, however, like all Tibetans, murmur the sacred formula *Om mane padme hum*

over and over again. These four words contain the key to all faith and salvation. They signify "O, jewel in the lotus flower, amen." The jewel is Buddha, and in all images he is represented as rising up from the petals of a lotus flower. The more frequently a man repeats these four words, the greater chance has he of a happy existence when he dies and his soul passes into a new body.

We reached Shigatse and pitched our tents in a garden on the outskirts of the town. Outside Shigatse stands the great monastery of Tashi-lunpo (Plate XI.), in which dwell 3800 monks of various grades, from fresh young novices to old, grey high priests. They all go bareheaded and bare-armed, and their dress consists of long red sheets wound round the body. The priest who is head of all is called the Tashi Lama; he is the primate of this part of Tibet and enjoys the same exalted rank and dignity as the Dalai Lama in Lhasa. He has a great reputation for sanctity and learning, and pilgrims stand for hours in a queue only to receive a word of blessing from him.

This Tashi Lama was then a man of twenty-seven years of age, and had held the position since he was a small boy. He invited me to the great festival in the temple on New Year's Day. In the midst of the temple town is a long court surrounded by verandahs, balconies, and platforms. Round about are seen the gilded copper roofs over the sanctuaries and mausoleums where departed high priests repose. Everywhere the people are tightly packed, and the visitors from far and near are dressed in their holiday clothes, many-coloured and fine, and decorated with silver ornaments, coral and turquoise. The Tashi Lama has his seat in a balcony hung with silken draperies and gold tassels, but the holy countenance

can be seen through a small square opening in the silk.

The festival begins with the entry of the temple musicians. They carry copper bassoons ten feet long, so heavy that their bells have to rest on the shoulder of an acolyte. With deep, long-drawn blasts the monks proclaim the New Year, just as long ago the priests of Israel announced with trumpet notes the commencement of the year of jubilee. Then follow cymbals which clash in a slow, ringing measure, and drums which rouse echoes from the temple walls. The noise is deafening, but it sounds cheerful and impressive after the deep stillness in the valleys of Tibet.

After the musicians have taken their places in the court the dancing monks enter. They are clad in costly garments of Chinese silk, and bright dragons embroidered in gold flash in the folds as the sunlight falls on them. The faces of the monks are covered by masks representing wild animals with open jaws and powerful tusks. The monks execute a slow circular dance. They believe, and so do all the people, that evil spirits may be kept at a distance and driven away by this performance.

The next day I was summoned to the Tashi Lama. We passed along narrow paved lanes between the monastery walls, through narrow gloomy passages, up staircases of polished wood, and at last reached the highest floor of the monastery, where the Tashi Lama has his private apartments. I found him in a simple room, sitting cross-legged in a window recess from which he can see the temple roofs and the lofty mountains and the sinful town in the valley. He was beardless, with short-cut brown hair. His expression

was singularly gentle and charming, almost shy. He held out his hands to me and invited me to take a seat beside him, and then for several hours we talked about Tibet, Sweden, and this vast, wonderful world.

Wild Asses and Yaks

If I had counted all the wild asses I saw during my travels in Tibet the number would amount to many, many thousands. Up in the north, in the very heart of the highland country, and down in the south, hardly a day passed without our seeing these proud, handsome animals, sometimes alone, sometimes in couples, and sometimes in herds of several hundred head.

The Latin name for the wild ass, *Equus kiang*, indicates his close relationship to the horse, and "kiang" is what he is called by the people of Tibet. The wild ass is as large as an average mule, with well-developed ears, and a sharp sense of hearing; his tail is tufted at the end, and he is reddish-brown in colour, except on the legs and belly, where he is white. When he scents danger he snorts loudly, throws up his head, cocks his ears, and expands his nostrils; he is more like a fine ass than a horse, but when you see him wild and free on the salt plains of Tibet, the difference between him and an ass seems even greater than between an ass and a horse. My own horses and mules seemed sorry jades by the side of the "kiangs" of the desert.

On one occasion my Cossacks caught two small foals which as yet had no experience of life and the dangers of the desert. They stood tied up between the tents and made no attempt to escape. We gave them meal mixed with water, which they supped up

eagerly, and we hoped that they would thrive and stay with us. When I saw how they pined for freedom, however, I wanted to restore them to the desert and to their mother's care. But it was too late; the mothers would have nothing to do with them after they had been in the hands of men, so we had to kill them to save them from the wolves. Thus strict is the law of the wilderness: a human hand is enough to break the spell of its freedom.

We cannot travel back to India without having become acquainted with the huge ox which runs wild over the loftiest mountains of Tibet. He is called "yak" in Tibetan, and the name has been transferred to most European languages. He is closely akin to the tame yak, but is larger and is always of a deep black colour; only when he is old does his head turn grey. The tame yak, on the other hand, is often white, brown, or mottled. Common to both are the peculiar form and the abundant wool. Seen from the side, the yak seems humpbacked. The back slopes down from the highest point, just over the forelegs, to the root of the tail, while the neck slopes down still more steeply to the scrag. The animal is exceedingly heavy, strong and ungainly, and the points of the thick horns are often worn and cracked in consequence of severe combats between the bulls.

As the yak lives in a temperature which in winter falls below the freezing-point of mercury (-40°), he needs a close warm coat and a protective layer of fat under the hide; and he is, in fact, so well provided with these that no cold on earth can affect him. When his breath hangs in clouds of steam round his nostrils he is in his element. Singular, too, are the fringes of wool a foot long which skirt the lower parts of his flanks and the upper parts of his forelegs.

They may grow so long as to touch the ground as the yak walks. When he lies down on the stone-hard, frozen, and pebbly ground, these thick fringes serve as cushions, and on them he lies soft and warm.

On what do these huge fleshy animals live in a country where, broadly speaking, nothing grows and where a caravan may perish for want of fodder? It often happened that we would march for several days together without seeing a blade of grass. Then we might come to a valley with a little scanty hard yellow grass, but even if we stayed over a day the animals could not get nearly enough to eat. Not until we have descended to about 15,000 feet above sea-level do we find—and then only very seldom—a few small, miserable bushes; and to reach trees we must descend another 3000 feet lower. In the home of the wild yaks the ground is almost everywhere bare and barren, and yet these great beasts roam about and thrive excellently. They live on mosses and lichens, which they lick up with the tongue, and for this purpose their tongues are provided with hard, sharp, horny barbs like a thistle. In the same way they crop the velvety grass, less than half an inch high, which grows on the edges of the high alpine brooks, and which is so short that a horse cannot get hold of it.

On one occasion I made an excursion of several days from the main caravan, accompanied by only two men. One was an Afghan named Aldat. He was an expert yak-hunter, and used to sell the hides to merchants of Eastern Turkestan to be made into saddles and boots. We had encamped about 600 feet higher than the summit of Mont Blanc, and the air was so rarefied that if we took even a few steps we suffered from difficulty in breathing and palpitation of the heart.

When the camp was ready, Aldat came and asked me to look at a large yak bull grazing on a slope above my tent. As we needed flesh and fat, I gave him permission to shoot it and to keep the hide. The bull had not noticed us, for he was to windward, and thought of nothing but the juicy moss. Water melted from the snow trickled among the stones, the wind blew cold, and the sky was overcast—true yak weather. With his gun on his back, Aldat crept up a hollow. At last he pushed himself along on his elbows and toes, crouching on the ground like a cat prowling after prey. At a distance of thirty paces he stopped behind a scarcely perceptible ridge of stones and took careful aim. The yak did not look up, not suspecting any danger. He had roamed about for fifteen years on these peaceful heights near the snow-line and had never seen a man. The shot cracked out and echoed among the mountains. The yak jumped into the air, took a few uncertain steps, stopped, reeled, tried to keep his balance, fell, lifted himself, but fell again heavily and helplessly to the ground, and lay motionless. It was stone dead, and in an hour was skinned and cut up.

This took place on September 9. On the 23rd of the same month the relations of the yak bull might have seen from a distance a strange procession. Some men carried a long object to the edge of a grave which had just been dug, lowered it into the trench, covered it with a skin coat, and filled in the grave with stones and earth. Into this simple mound was thrust a tent pole, with the wild yak's bushy tail fastened to the top; and the man who slumbered under the hillock was Aldat himself, the great yak-hunter.

X

INDIA

From Tibet to Simla

Right up in Tibet lie the sources of the Sutlej, the largest affluent of the Indus. With irresistible force it breaks through the Himalayas in order to get down to the sea, and its valley affords us an excellent road from the highlands of Tibet to the burning lowlands of India. On this journey we pass through a succession of belts of elevation, and find that various animals and plants are peculiar to different heights. The tiger does not go very high up on the southern flanks of the Himalayas, but the snow leopard is not afraid of cold. The tame yak would die if he were brought down to denser strata of air, and Marco Polo's sheep would waste away on the forest-clothed heights; but wolves, foxes and hares occur as frequently in India as in Tibet.

The boundaries of the flora are more sharply defined. Below the limit of eternal snow (13,000 feet) ranunculus and anemones, pedicularis and primulas are found just as they are in our higher latitudes with corresponding conditions of temperature. At 12,000 feet lies the limit of forest, beyond which the birch does not go, but where pine-trees still thrive. Between 10,000 and 6000 feet are woods of the beautiful and charming conifer called the Himalayan cedar, which is allied to the cedar of Lebanon. At 7000 feet the limit of subtropical woods is crossed,

and the oak and the climbing rose are seen. Just below 3500 feet the tropical forest is entered, with acacias, palms, bamboos, and all the floral wealth of the Indian jungle.

The Sutlej grows bigger and bigger the further we descend, and we ride on shaking bridges across innumerable tributaries. The atmosphere becomes denser, and breathing easier. We no longer have a singing in the ears, or palpitations or headache as on the great heights, and the cold has been left behind. Even in the early morning the air is warm, and soon come days when we look back with regret to the cool freshness up in Tibet. One of my dogs, a great shaggy Tibetan, suffered severely from the increasing heat, and one fine day he turned right about and went back to Tibet.

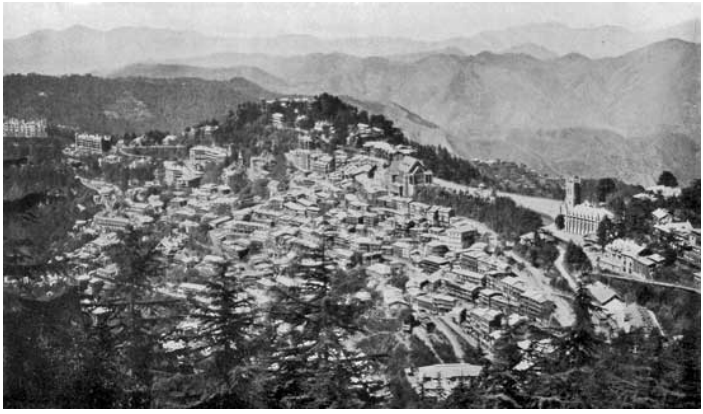


PLATE XII. SIMLA.

The first town that we come to is called Simla (Plate XII.). It is not large, having barely 15,000 inhabitants, but it is one of the most beautiful towns in the world, and one of the most powerful, for in its

cedar groves stands a palace, and in the palace an Imperial throne. The Emperor is the King of England, whose power over India is entrusted to a Viceroy. In summer enervating heat prevails over the lowlands of India, and all Europeans who are not absolutely tied to their posts move up to the hills. The Viceroy and his staff, the government officials, the chief officers of the army, civil servants and military men all fly with their wives up to Simla, where the leaders of society live as gaily as in London. During this season the number of inhabitants rises to 30,000.

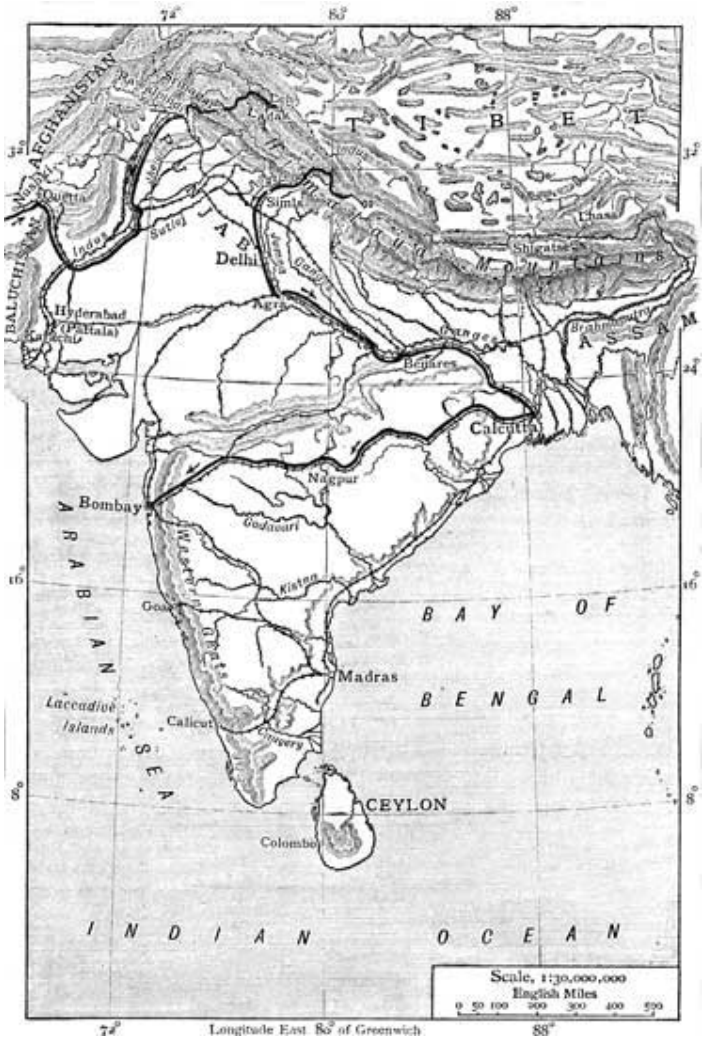
The houses of Simla are built like swallows' nests on steep slopes. The streets, or rather roads, lie terraced one above another. The whole town is built on hills surrounded by dizzy precipices. Round about stand forests dark and dense; but between the cedars are seen far off to the southwest the plains of the Punjab and the winding course of the Sutlej, and to the north the masses of the Himalayas with their eternal snowfields. It is delightful to go up to Simla from the sultriness of India, and perhaps still more delightful to come down to Simla from the piercing cold of Tibet.

Delhi and Agra

From Simla we go down by train through hundreds of tunnels and round the sharpest curves, over countless bridges and along dizzy precipices, to the lowlands of the Punjab. It is exceedingly hot, and we long for a little breeze from Tibet's snowy mountains.

Time flies by till we reach Delhi, situated on the Jumna, one of the affluents of the Ganges. Delhi was the capital of the empire of the Great Moguls,[11] and in the seventeenth century it was the most

magnificent city in the world.



MAP OF INDIA, SHOWING JOURNEY FROM NUSHKI TO LEH (pp. 82-88), AND THE JOURNEY FROM TIBET THROUGH SIMLA, ETC., TO BOMBAY (pp. 130-142).

Many proud monuments of this grandeur still remain, notably the splendid building of pure white marble called the Hall of Private Audience, where in the open space surrounded by a double colonnade the Great Mogul was wont to dispense justice and receive envoys. In the sunshine the marble columns seem to be translucent, and light-blue shadows fall on the marble floor. The walls and pillars are inlaid with costly stones of various shapes: lapis-lazuli and malachite, nephrite and agate. In the throne-room used to stand the famous "Peacock Throne" of the Great Mogul. The whole throne was covered with thick plates of gold and studded all over with diamonds. In the year 1749 the Persian king, Nadir Shah, came to Delhi, defeated the Great Mogul and carried off treasures to the value of fifty-six million pounds. Among other valuables he seized was the famous diamond called the "Koh-i-noor," or "Mountain of Light," now among the British crown jewels. He also carried off the Peacock Throne, which alone was worth eleven million pounds. It is to this day in the possession of the Shahs of Persia, but all the diamonds have been taken out one after another by the successors of Nadir Shah when they happened to be in difficulties. The gold plates are left, however, and on the back still glitter the golden peacocks which give the throne its name.

If we stroll for some hours through the narrow streets and interesting bazaars of Delhi and push our way among bustling Hindus and Mohammedans, we can better appreciate the vaulted arches of the Hall of Private Audience and can also understand the Persian inscription to be read above the entrance: "If there be an Elysium on earth, it is here."

Farther down the Jumna stands Agra, and here we

make another break in our railway journey eastwards. Agra also was for a time the capital of the Great Mogul empire, and in the seventeenth century the emperor who bore the name of Shah Jehan erected here an edifice which is still regarded as one of the most beautiful in the world (Plate XIII.). It is called the "Taj Mahal," or "royal palace," and is a mausoleum in memory of Shah Jehan's favourite wife, Mumtaz, by whose side he himself reposes in the crypt of the mosque. It is constructed entirely of blocks of white marble, and took twenty-seven years to build and cost nearly two million pounds of our money.

The garden which surrounds the sanctuary is entered through a large gate of red sandstone. In a long pool goldfish dart about under floating lotus blossoms, and all around is luxuriant verdure, the dwelling-place of countless singing birds; the air is filled with the odour of jasmine and roses, and tall, slender cypresses point to heaven.

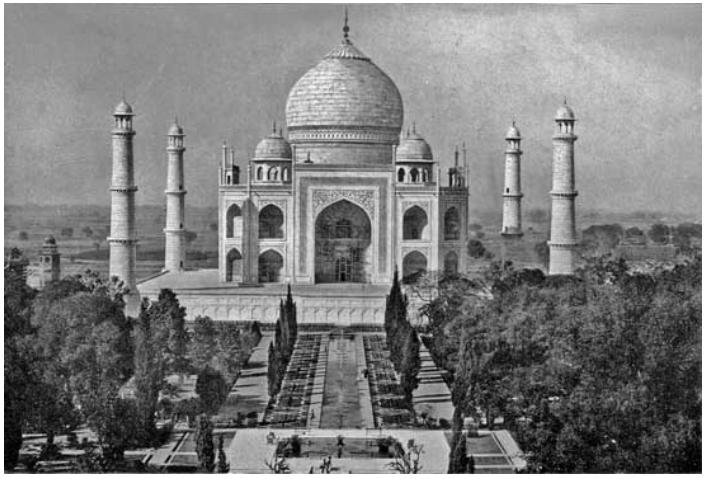


PLATE XIII. THE TAJ MAHAL.

Straight in front the marble Taj Mahal rises from a terrace, dazzling white in the sunshine—a summer dream of white clouds turned to stone, a work of art which only love could conjure out of the rubbish of earth. The airy cupola, the arched portals, and bright white walls are reflected in the pool. At each of the four corners of the terrace stands a tall slender minaret, also of white marble, and in the centre the huge dome rises to a height of 240 feet. In the great octagonal hall below the dome, within an enclosure of marble filigree work, stand the monuments over Shah Jehan and his queen Mumtaz. The actual sarcophagi are preserved in the vault beneath.

The four façades of this wonderful building are all alike, but the background of green vegetation and the changes of light seem always to be producing new effects. Sometimes a faint green reflection from the foliage can be seen in the white marble; in the full sunshine it is like snow; in shadow, light blue. When the sun sinks in the red glow of evening, the whole edifice is bathed in orange light; and later comes the moonlight, which is perhaps the most appropriate of all. Steamy and close, hot and silent, now lies the garden; the illumination is icy cold, the shadows deep black, the dome silvery white. The mysterious sounds of the jungle are heard around, and the Jumna rolls down its turbid waters to meet the sacred Ganges.

Benares and Brahminism

In the drainage basin of the Ganges, through which the train is again carrying us south-eastwards, 100 million human beings, mostly Hindus, have their home. The soil is exceedingly fertile, and supports

many large towns, several of them two or three thousand years old, besides innumerable villages. Here the Hindu peasants have their huts of bamboo-canes and straw-matting, and here they cultivate their wheat, rice, and fruits.

Our next stay is at Benares—the holiest city in the world, if holiness be measured by the reverence shown by the children of men. Long before Jerusalem and Rome, Mecca and Lhasa, Benares was the home and heart of the ancient religion of India, and it still is the centre of Brahminism and Hinduism. There are more than 200 millions of Hindus in the world, and the thoughts of all of them turn to Benares. All Hindus long to make a pilgrimage to their holy city. The sick come to recover health in the waters of the sacred Ganges, the old travel hither to die, and the ashes of those who die in distant places are sent to Benares to be scattered over the waters of salvation. In Benares, moreover, Buddha preached 500 years before Christ, and at the present day he has more than 400 million followers; so to Buddhists also Benares is a holy place.

The Hindus have three principal gods: Brahma, the creator; Vishnu, the preserver; and Siva, the destroyer. From these all the others are derived: thus, for example, Kali represents only one of the attributes of Siva. To this goddess children were formerly sacrificed, and when this was forbidden by the British Government goats were substituted. But we have not yet done with divinities. The worship of the Hindus is not confined to their gods. Nearly all nature is divine, but above all, cows and bulls, apes and crocodiles, snakes and turtles, eagles, peacocks and doves. It is not forbidden to kill, steal and lie,

but if a Hindu eats flesh, nay, if he by chance happens to swallow the hair of a cow, he is doomed to the hell of boiling oil. He becomes an object of horror to all, but above all to himself. For thousands of years this superstitution has been implanted in the race, and it remains as strong as ever.

Ever since India, or, as the country is called in Persia, Hindustan, was conquered by the invading Aryans from the north-west—and this was quite 4000 years ago—the Hindus have been divided into castes. The differences between the different castes are greater than that between the barons and the serfs in Europe during the Middle Ages. The two highest castes were the Brahmins (or priests) and the warriors. Now there are a thousand castes, for every occupation constitutes an especial caste: all goldsmiths, for example, are of the same caste, all sandal-makers of another, and men of different castes cannot eat together, or they become unclean.

Early in the morning, just before the day has begun to dawn in the east, let us hire a boat and have ourselves rowed up and down the Ganges. In this way we obtain an excellent view of this wonderful town as it stretches in front of us along the left bank of the river—a great heap of closely packed buildings, houses, walls and balconies, and an endless succession of pagodas with lofty towers (Plate XIV.). From the top of the bank, which is about 100 feet high, a broad flight of steps runs down to the river, and stone piers jut out like jetties into the water. Between these are wooden stages built over the surface of the river and covered with

straw thatch and large parasols or awnings. This is the gathering place of the faithful. They come from every furthest corner of the city to the sacred river to greet the sun when it rises—brown, half-naked figures, with light clothing, often only a loincloth, of the gaudiest colours. The whole bank of the river teems with men.

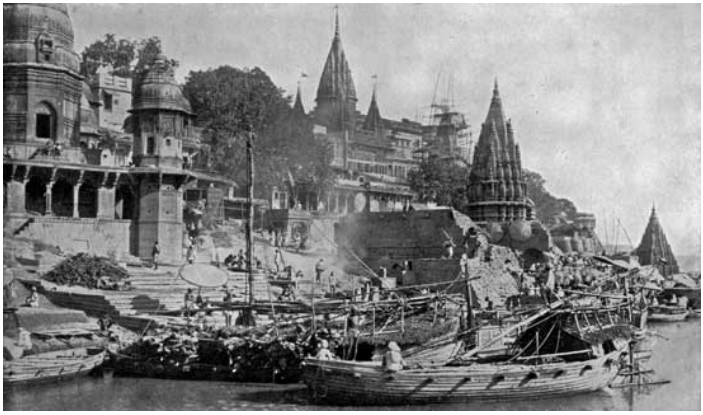


PLATE XIV. BENARES.

An elderly Brahmin comes down to a jetty and squats on his heels. His head is shaved, with the exception of a tuft on the crown. He dips his head in the river, scoops some water up and rinses his mouth with it. He calls on Ganges, daughter of Vishnu, and prays her to take away his sins, the impurity of his birth, and to protect him throughout his life. Then, after repeating the twenty-four names of Vishnu, he stands up and calls out the sacred syllable "Om," which includes Brahma, Vishnu, and Siva. Lastly he invokes the earth, air, sky, sun, moon, and stars, and pours water over his head.

The rim of the rising sun is seen above the jungle on

the right bank of the Ganges. Its appearance is saluted by all the thousands of pious pilgrims, who sprinkle water with their hands in the direction of the sun, wading out into the long shallow margin of the river. The old Brahmin has squatted down again and performs the most incomprehensible movements with his hands and fingers. He holds them in different positions, puts them up to the top of his head, his eyes, forehead, nose, and breast, to indicate the 108 different manifestations of Vishnu. If he forgets a single one of these gestures, all his worship is in vain. The same ceremony has to be repeated in the afternoon and evening, and in the intervals the devout Brahmin has other religious duties to perform in the temples.

Here an old man lies stretched out on a bed of rags. He is so thin that his skin hangs loosely over his ribs, and though his body is brown, his beard is snow-white. He has come to Benares to die beside the holy Ganges, which flows from the foot of Vishnu. There stands a man in the prime of life, but a leper, eaten away with sores. He has come to Benares to seek healing in the waters of life. Here, again, is a young woman, who trips gracefully down the stone steps bearing a water jug on her head. She wades into the river until the water comes up to her waist; then she drinks from her hand, sprinkles water towards the sun, pours water over her hair, fills her pitcher, and goes slowly up again, while the holy Ganges water drips from the red wrap which is wound round her body. And all the other thousands who greet the sun with oblation of water from the sacred river are convinced that he who makes a pilgrimage to Benares and dies within the city walls obtains forgiveness for all his sins.

Like the Buddhists, the Hindus believe in the transmigration of souls. A Hindu's soul must pass through more than eight million animal forms, and for all the sins he has committed in the earlier forms of his existence, he must suffer in the later. Therefore he makes offerings to the gods that he may soon be released from this eternal wandering and attain the heaven of the faithful. In the endless chain of existence this short morning hour of prayer on the banks of the Ganges is but a second compared to eternity.

In the evening, when the hottest hours of the day are past, let us again take a boat and drift down slowly past the stone steps and jetties of Benares. Noiseless, muddy, and grey the sacred river streams along its bed. What quantities of reeking impurities there are in this water of salvation! Whole bundles of crushed and evil-smelling marigolds, refuse, rags and bits, bubbles and scum, float on its surface.

Down a steep lane a funeral procession approaches the bank at a quick pace. The strains of anything but melodious music disturb the quiet of the evening, and the noise of drums is echoed from the walls of the pagodas. The corpse is borne on a bier covered with a white sheet, and men of the caste of body-burners arrange it on the pyre, a pile of wood stacked up by the waterside. Then they set fire to the dry shavings, and the wood pile crackles. Thick clouds of smoke rise up and the smell of burned flesh is borne on the breeze.

The body-burners have been sparing of fuel, however, and when the heap of wood has burned

down to ashes, the half-consumed and blackened corpse still remains among the embers, and is then thrown out into the river.

The Light of Asia

In the sixth century before Christ, an Aryan tribe named Sakya dwelt in Kapilavastu, 120 miles north of Benares. The king of the country had a son, Siddharta, gifted with supernatural powers both of body and mind. When the prince had reached his eighteenth year he was allowed to choose his bride, and his choice fell on the beautiful Yasodara; but in order to obtain her hand he had to vanquish in open contest those of his people who were most proficient in manly exercises. First came the bowmen, who shot at a copper drum. Siddharta had the mark moved to double the distance, but the bow that was given him broke. Another was sent for from the temple—of unpolished steel, so stiff that no one could bend it to get the loop of the string into the groove. To Siddharta, however, this was child's play, and his arrow not only pierced the drum, but afterwards continued its flight over the plain.

The second trial was with the sword. With a single stroke each of the other competitors cut through the trunk of a fine tree, but with lightning rapidity Siddharta's blade cut clean through two trunks standing side by side. As the trees remained unmoved, the other competitors were jubilant and scoffed at the prince's blunt sword, but a light puff of wind rustled through the tops of the trees and both fell to the ground.

The last trial was to subdue a wild horse which no one could ride. Under Siddharta's powerful hand it

became gentle and obedient as a lamb.

Then the prince led his bride to the splendid palace of Kapilavastu. The king feared that the wickedness, poverty, and misfortune which prevailed in the world without might trouble the prince's mind, and he therefore had a high wall built round the palace, and guards posted at the gates. The prince was never to pass out through them.

For some time the prince lived happily in his paradise, but one day he was seized with a desire to see the condition of men out in the world. The king gave him permission to leave the palace grounds, but issued orders that the town should be decorated as for a festival, and that all the poor, crippled, and sick people should be kept out of sight. The prince drove through the streets in his carriage drawn by bulls. There he saw an old man, worn and bent, who held out his withered hand, crying, "Give me an alms, to-morrow or the next day I shall die." The prince asked whether this hideous creature, so unlike all the others he had seen, was really a man, and his attendant replied that all men must grow old, feeble, and miserable like the one in front of them. Troubled and thoughtful Siddharta returned home.

After some time he begged his father to let him see the town in its everyday state. Disguised as a merchant, and accompanied by the same attendant who was with him on the first occasion, he went through the streets on foot. Everywhere he saw prosperity and industry, but suddenly he heard a whining cry beside him: "I am suffering, help me home before I die." Siddharta stopped and found a plague-stricken man, unable to stir, his body covered with blotches. He asked his attendant what was the

matter, and was told that the man was ill.

"Can illness afflict all men?"

"Yes, Sire, it comes sneaking like a tiger through the thicket, we know not when or wherefore, but all may be stricken down by it."

"Can this unfortunate man live long in such misery, and what is the end?"

"Death."

"What is death?"

"Look! here comes a funeral. The man who lies on the bamboo bier has ceased to live. Those who follow him are his mourning relations. See how he is now laid on a pyre, down there on the bank, and how he is burnt; soon all that is left of him will be a little heap of ashes."

"Must all men die?"

"Yes, Sire."

"Myself also?"

"Yes."

More sorrowful than ever he returned home, and in his soul a longing ripened to save mankind from suffering, care, and death. He heard a voice, "Choose between a royal crown and the beggar's staff, between worldly power and the lonely desolate paths which lead to the redemption of mankind."

His resolution was soon taken. In the night he stole gently to Yasodara's couch, and looked his last on his young wife sleeping on a bed of roses, with her new-born son in her arms. Then he left behind all he

loved, bade his groom saddle his horse, and rode to the copper gates, now watched by a treble guard. A magic wind passed over the watchmen, and they fell into a deep sleep, while the massive gates opened noiselessly of themselves.

When he was far away from Kapilavastu, he sent his servant back with the horse and its royal trappings, changed clothes with a tattered beggar, and went on alone. Then he met the odious tempter, the power of evil, who offered him dominion over the four great continents if he would only abandon his purpose. He overcame the tempter, and continued his journey until he came to another kingdom, where he settled in a cave and attempted to convince the Brahmins that Brahma could not be a god, since he had created a wretched world. The Brahmins, however, received him with suspicion, so he retired to a lonely country where, with five disciples, he devoted himself to deep meditation and self-mortification.

In time he came to see that it was no use to torture and enfeeble the body, which is after all the abode of the soul, and accordingly began to take food again. Then his disciples abandoned him, for at that time self-mortification was regarded as the only path to salvation. Siddharta was then alone, and under the sacred fig-tree still shown in India he gained wisdom and enlightenment, and became Buddha.

Then he came to Benares, and won back his first disciples; and his society, the brotherhood of the yellow mendicant monks, spread ever more and more. In the rainy season, from June to October, he taught in Benares, and in the fine weather he wandered from village to village. "To abstain from all evil, to acquire virtue, to purify the heart—that is the

religion of Buddha"; so he preached. At the age of eighty years he died in 480 B.C.

Buddha was a reformer who wished to instil new life into the religious faith of the Hindus. Many of the leading brothers of his order were Brahmins. He rejected the Vedic books, self-mortification, and differences of caste, preached philanthropy, and taught that the way to Nirvana, the paradise of peace and perfection, is open to all. He left no writings behind, but his doctrines were preserved in the memory of his disciples, who long after wrote them down. The five chief precepts are, "Thou shalt not kill, thou shalt not steal, thou shalt not commit adultery, thou shalt not lie, and thou shalt not drink strong drinks."

To-day, 2500 years after his death, the doctrine of Buddha has spread over immense regions of eastern Asia—over Japan, China, Korea, Mongolia, Tibet, Further India, and Ceylon—and the country north of the Caspian Sea. Innumerable are the images of Buddha to be found in the temples of eastern Asia, and he himself has been called the "Light of Asia."

Bombay

After we leave Benares the railway turns south-eastwards to the wide delta country where the Ganges and the Brahmaputra meet, and where Calcutta, the capital of India,[12] stands on one of the arms of the river. The town itself is flat and monotonous, but it is large and wealthy and contains more than a million inhabitants. The climate is very damp and hot, the temperature even in winter being about 95° in the shade. Accordingly in the summer the Viceroy and his government move up to Simla in

the cool of the hills.

From Calcutta we travel by train right across to the western coast of the Indian Peninsula, to a more beautiful and more pleasant city—indeed one of the most beautiful cities of the world. Bombay is the gate to India, for here the traveller ends his voyage from Europe through the Suez Canal and begins his railway journey to his destination. It is a great and wealthy commercial town, having about 800,000 inhabitants, and innumerable vessels lie loading or unloading in the splendid harbour.

Here we find the last remnant of a people formerly great and powerful. About six or seven hundred years before the birth of Christ lived a man named Zoroaster. He founded a religion which spread over all Persia and the neighbouring lands, and under its auspices Xerxes led his immense armies against Greece. When the martial missionaries of Islam overwhelmed Persia in 650 A.D. many thousands of the followers of Zoroaster fled to India, and a remnant of this people still live in Bombay and are called Parsees.

They are clever and prosperous merchants, many of them being multi-millionaires, and they own Bombay and control its trade. Their faith involves a boundless reverence for fire, earth, and water. As the earth would be polluted if corpses were buried in it, and as fire would be dishonoured by burning bodies, they deposit their dead within low round towers, called the Towers of Silence. There are five of these towers in Bombay. They all stand together on a high hill, rising from a peninsula which runs out into the sea. The body is laid naked within the walls of the tower. In the trees around large vultures perch, and in a few

minutes nothing but the skeleton is left of the corpse. Under the cypresses and the fine foliage trees in the park round the Towers of Silence the family of the deceased may abandon themselves to their grief.

The Useful Plants of India

In India we find a flora nearly allied to that which flourishes in tropical Africa, a soil which freely affords nourishment to both wild and cultivated plants, an irrigation either supplied directly by the monsoon rains or artificially conducted from the rivers. It is true that we travel for long distances, especially in north-western India, through true desert tracts, but other districts produce vegetation so dense and luxuriant that the air is filled with reeking, choking vapour as in a huge hothouse.

First there are bananas, the cucumber-shaped fruits which are the food of millions of human beings. From India and the Sunda Islands this beneficent tree has spread to Africa and the Mediterranean coasts, to Mexico and Central America. Its floury-white flesh, juicy and saccharine, fragrant and well-flavoured, is an excellent article of food. The large leaves of the banana are useful for various purposes—sunshades, roof thatch, etc.

When the hot season comes, how pleasant it is to dream in the shadow of the mango-tree! The tree is about sixty feet high, and the shadow beneath its bluish-grey leathery leaves is close and dense. The pulp of the fruit is golden yellow and juicy, rich in sugar and citric acid. It is difficult to describe the taste, for it is very peculiar; but it is certainly delicious.

From their home in China and Cochin China the orange and its smaller brother, the mandarin, have spread over India and far around. Amongst the many other fruits which abound in India are grapes, melons, apples and pears, walnuts and figs. Figs are green before they ripen, and then they turn yellow. The fig-tree is distributed over the whole world wherever the heat is sufficient. It is mentioned both in the Old and the New Testament. Under a kind of fig-tree Buddha acquired wisdom in the paths of religion, and therefore the tree is called *Ficus religiosa*. *Nymphæa stellaris*, the lotus flower, which, like the water-lily, floats on water, is another plant of great renown among Buddhists. The lotus is an emblem of their religion, as the Cross is of Christianity.

In India a large quantity of rice is cultivated. In the north-eastern angle of the Indian triangle, Bengal and Assam, in Burma, on the peninsula of Further India (the Malay Peninsula), as well as in the Deccan, the southern extremity of the triangle, rice cultivation is extensively developed. Wheat is grown in the north-west, and cotton in the inland parts of the country. The cotton bush has large yellow flowers, and when the fruit, which is as large as a walnut, opens, the inside shows a quantity of seeds closely covered with soft woolly hairs. The fruit capsules are plucked off and dried in the sun. The fibre is removed from the seeds by a machine, and is cleaned and packed in bales which are pressed together and confined by iron bands, and then the article is ready for shipping to the manufacturing towns, of which Manchester is the most important. In India and Arabia the cotton bush has been cultivated for more than 2000 years, and Alexander the Great introduced it into Greece. Now there are plantations

all over the world, but nowhere has the cultivation reached such perfection as in the United States of America.

Crops which during recent decades have shown enormous development are those known as india-rubber and gutta-percha, so much being demanded by the bicycle and motor industries. In the year 1830, 230 tons of rubber were imported into Europe; in 1896, 315,500 tons. The demand became so great that a reckless and barbarous exploitation took place of the trees, the inspissated and dried sap of which is rubber, this tough resisting and elastic gum which renders such valuable services to man. In Borneo ten trees were felled for every kilogramme of gutta-percha. Now more prudent and sensible methods have been introduced. In Ceylon, Java, and the Malay Peninsula there are large plantations which make their owners rich men. In India the Brazilian tree (*Hevea*) is the most productive of all the rubber-yielding varieties. A cross cut is made in the trunk of the tree, and the milky juice runs out and is collected into receptacles. Then it is boiled, stirred, compressed, and spread on tinned plates, rolled up and sent in balls into the market. At present Brazil supplies two-thirds of all the rubber used.

Then we have all the various spices—cinnamon, which is the bark on the twigs of the cinnamon-tree; pepper, carried into Europe by Alexander; ginger, and cardamoms. There is sesamum, from the seeds of which a fine edible oil is pressed out, and then tea, coffee, and tobacco. A plant which is at once a blessing and a curse, and which is extensively cultivated in India, is the poppy. When the outer skin of the fruit capsule is slit with a knife, a milky juice oozes out which turns brown and coagulates in the

air, and is called opium. The opium which Europe requires for medicinal purposes comes from Macedonia and Asia Minor. But the opium grown in Persia and India goes mostly to China, into which country it was introduced by the Tatars at the end of the seventeenth century. The Chinese smoke opium in specially-made pipes. A small pea of opium is pressed into the bowl of the pipe and held over the flame of a lamp. The smoke is inhaled in a couple of deep breaths. Another pellet is treated in the same way. Soon the opium-smoker falls into a trance full of dreams and beautiful visions. He forgets himself, his cares and his surroundings, and enjoys perfect bliss. He then sleeps soundly, but when he awakes the reality seems more gloomy and dreary than ever, and he suffers from excruciating headache. All he cares for is the opium pipe. Men who fall a victim to this vice are lost; they can only be cured when confined in homes. In Persia opium is usually smoked in secret dens, for there the habit is considered shameful, but in China both men and women smoke openly.

The sugar-cane is also grown over immense fields in India. The juice contains 20 per cent of sugar. In Sanscrit, the old language of India, it is called *sakhara*. The Arabs, who introduced it to the Mediterranean coasts, called it *sukhar*. And thus it is called, with slight modifications, in all the languages of Europe and many of those of Asia.

We must also not forget the countless palms which wave their crowns in the tepid winds of the monsoons. There are the date palms, the coconut palms, the sago palm, and a multitude of others. The sago palm, from the pith of which sago grains are prepared, is a remarkable plant. It flowers only once

and then dies. This occurs at an age of twenty years at most.

The soil of India supports many kinds of useful trees —sandalwood, which is employed in the construction of the finer kinds of furniture; ebony, with its dark wood; the teak-tree, which grows to a height of 130 feet, and forms immense forests in both the Indian peninsulas and in the Sunda Islands. It is hard and strong, like oak, and nails do not rust in it. It is therefore used in shipbuilding, and also frequently in the inside of modern warships. The sleeping and refreshment carriages of railway trains are usually built of teak.

Lastly, there is the blue vegetable substance called indigo, which is obtained from small bushes or plants by a simple process of fermentation. It is mostly used to dye clothing, and has been known in Europe since the Indian campaign of Alexander.

Wild Elephants

The home of the wild elephant is the forests of India, the Malay Peninsula, Ceylon, Sumatra, and Borneo, while another species is found in Africa. They live in herds of thirty or forty, and every herd forms a separate community. The leader of the herd is a full-grown bull with large, strong tusks, whom all the others obey with the greatest docility. When they wander through the forest, however, or fly before danger, the females go in front and set the pace, for they alone know how fast their young ones can travel. Their senses of smell and hearing are remarkably acute; they are of a good-tempered and peaceable disposition, and do not care to expose themselves to unnecessary risks. They are therefore

not very dangerous to man, unless when attacked; but man is their worst enemy.

In India wild elephants are caught to be tamed and employed in labour. They are captured in various ways, but usually tame elephants are used to decoy the wild ones. Expert elephant-catchers hide themselves as well as they can on the backs of tame animals and drive them into a herd of their wild relations. When a full-grown male has been separated from the herd, he is beset on all sides by his pursuers and prevented from sharing in the flight of his companions. They do him no injury, but only try to tire him out. It may be two whole days before he is so exhausted that, come what may, he must lie down to sleep. Then the men drop down from the tame animals and wind ropes round his hind legs, and if there is a tree at hand they tie him to it.

In Ceylon there are wonderfully smart and expert elephant-catchers who hunt their game in couples without the help of tame decoys. They search through the woods and thickets and follow a spoor when they come across it, being able to judge from the footprints how long ago the trail was tramped out, how many elephants there were, and whether they were going fast or slowly. The smallest mark or indication on the way, which a stranger would not notice, serves as a guide to them. When they have found the troop they follow it silently as shadows; they creep and crawl and sneak along the woodland paths as cautiously as leopards. They never tread on a twig which might crack, they never brush against a leaf which might rustle. The elephants, for all their fine scent and sharp hearing, have no suspicion of their proximity. The men lie in wait in a close thicket where the elephants can only move slowly, throw a

noose of ox hide before the animal's hind leg, and draw it tight at the right moment. Then the elephant finds out his danger, and, trumpeting wildly, advances to attack, but the men scurry like rats through the brushwood and strengthen the snares time after time until the animal is fast.

In India whole herds are also captured at once, and this is the most wonderful sight it is possible to conceive. A place is known in the forest where a herd of perhaps a hundred animals has made its home. Natives who are experienced in elephant-catching are called out, and all the tame elephants procurable are assembled. A chain of sentinels is posted round the herd, making a circle of several miles. The men construct a fence of bamboos as quickly and quietly as possible, and keep to their posts for nearly ten days. The elephants become restless and try to break through, but wherever they turn they are met with cries and shouts, blank gunshots and waving torches. They retire again to the middle of the enclosure. If they make an attempt in another direction, they are met in the same way, and at last, submitting to their fate, they stand in the middle where they are least disturbed.

Meanwhile within the circle a very strong enclosure has been erected of poles, trunks, and sticks 12 feet high, with a diameter of 160 feet at most. The entrance, which is 12 feet broad, can be closed in a moment by a huge falling wicket or gate. Now it stands open, and from the two sideposts run out two long palisades of stakes, forming an open passage to the entrance. The two fences diverge outwards and are nearest to each other at the entrance.

When all is ready the great ring of beaters closes up

round the herd, and scares and chases them with shouts and noise towards the opening between the palings. Fresh parties of beaters rush up, and when the elephants can find no other way free they dash in between the fences and into the pen, whereupon the entrance is closed with the heavy gate. They are caught as in a trap. They may, indeed, gather up their strength and try to break through the fence of poles, but it is too stoutly built and the beaters outside scare them away.



PLATE XV. TAME ELEPHANTS AND THEIR DRIVERS.

The imprisoned animals are left in peace for forty-eight hours, and when they have become quiet the most difficult and dangerous part of the exploit begins. Mounted on well-trained tame elephants, the most expert and experienced elephant-catchers enter the enclosure. They are active as cats, quick in their movements, bold, courageous, and watchful. Ropes are hung round the tame elephants so that their riders may have something to hold on by in case they are attacked and have to lower themselves down the

flanks of their animals. These know by the signs given to them by the riders what they have to do, and the rider holds in his hand a small iron spike which he presses against the elephant's neck to make him move forwards, backwards, to right or left. A rider approaches a selected victim. If he turns to attack, another tame elephant comes up and gives him a thrust with his tusks. Choosing his time, the rider throws a noose round the head of the wild animal. The tame one helps with his trunk to place the noose right. The other end is made fast round the trunk of a tree. When the animal is thus secured the rider slips down to the ground and throws another noose round his hind legs, and the end of this rope is also fastened to a tree. Thus he is rendered harmless, and he struggles and tugs in vain to get loose. Meanwhile the other tame elephants with their riders help to catch and fetter their wild relations.

Then the captives, well and securely bound, are led one after another out of the enclosure and are fastened to trees in the forest. Here they have for a long time to accustom themselves to man and the society of tame elephants, and when they have lost all fear, spitefulness, and wildness they are led into the villages to be regularly broken in and trained to work in the service of their capturers.

It is pleasant to see tame elephants at work, or bathing in the rivers with their drivers (Plate XV.). They carry timber, they carry goods along the high-roads, they are useful in many ways where great strength is needed. The Maharajas of India always keep a well-filled elephant stable, but employ the animals mostly for tiger-hunting and riding. The elephant is to them a show animal which is never absent on occasions of ceremony. Old well-trained

animals which carry themselves with royal dignity fetch, therefore, a very high price.

The Cobra

The cobra, or spectacled snake, is the most poisonous snake in India. It is very general in all parts of India, in Further India, in southern China, in the Sunda Islands, and Ceylon. Its colour is sometimes yellowish, shading into blue, sometimes brown, and dirty white on the under side. It is about five feet long. When it is irritated it raises up the front part of its body like a swan's neck, spreads out the eight foremost pairs of ribs at the sides, so that a hat or shield-shaped hood is formed below the head. The rest of the body is curled round, and gives the creature firm support when it balances the upper part of its body ready to inflict its poisonous bite with lightning speed. On the back of its hood are yellow markings like a pair of spectacles.

The cobra lives in old walls or heaps of stone and timber, under roots, or in dead trunks in the forest, in fact anywhere where he can find a sheltered hole. He does not avoid human dwellings, and he may often be seen, heavy and motionless, rolled up before his hole. But as soon as a man approaches he glides quickly and noiselessly into his hole, and if attacked defends himself with a weapon which is as dangerous as a revolver.

He is a day snake, but avoids sunshine and heat and prefers to seek his food after sunset. He should more properly be described as a snake of the twilight. He glides under the close brushwood of the jungle in pursuit of lizards and frogs, birds, eggs, and rats or other small animals that come in his way. On his

roamings he also climbs up trees and creeping plants, and swims across large streams. It might be thought that a vessel anchored off the coast would be safe from cobras, but cases have been known of these snakes swimming out, crawling up the anchor chains, and creeping on board.

The female lays a score of long eggs as large as a pigeon's, but with a soft shell. The male and female are believed to entertain a great affection for each other, for it has been noticed that when one of them is killed, the other is shortly seen at the same spot.

The Hindus regard the cobra as a god, and are loath to kill him. Many cannot bring themselves to do so. If a cobra comes into a hut, the owner sets out milk for him and protects him in every way, and when the reptile becomes practically tame and finds that he is left undisturbed, he does his host no harm. But if the snake kills any one in the hut, he is caught, carried to a distance, and let loose. If he bites a man and then is killed, the bitten man must also die. If he meets with an unfriendly reception in a hut, he brings ruin to the inmates; but if he is hospitably entertained, he brings good fortune and prosperity. If a serpent-charmer kills a cobra, he loses for ever his power over snakes. It is natural that a creature which is treated with such reverence must multiply excessively. About twenty thousand men are killed annually in India by snakes.

The cobra's poison is secreted in glands, and is forced out through the poison teeth when these pierce through the skin of a man or animal. Its effect is virulent when it enters the blood. If the bite pierces a large artery, death follows surely and rapidly. Otherwise the victim does not die for several hours,

and may be saved by suitable remedies applied immediately. A dog when bitten begins to bark and howl, vomits, and jumps about in the greatest uneasiness and despair. In a short time he becomes weak and helpless and dies. If the same cobra bites several victims one after the other within a couple of hours, the first dies, the second becomes violently ill, while the third is less affected. This is, of course, due to the fact that the contents of the poison glands become gradually exhausted; but they soon collect again.

When a man is bitten, his body becomes deadly cold, and every sign of life disappears. His breathing and pulse cannot be perceived at all. He loses consciousness and feeling and cannot even swallow. With judicious treatment the small spark of life still left may be preserved. For about ten days, however, the invalid remains very feeble, and then a slow improvement sets in. But as a rule the man dies, for in the Indian jungle help is seldom at hand, and the end soon comes. If the victim lies for two whole days as though dead, and yet does not actually die, it may be hoped that his body is throwing off the effect of the poison.

There are many extraordinary men in India. In Benares especially, but also in any other town, the shrivelled self-torturers called "fakirs" may be seen in the streets. They are stark naked save for a small loin-cloth. They are miserable and thin as skeletons, and their whole bodies are smeared with ashes. They sit motionless at the street corners of Benares, always in the same posture. One sits cross-legged with his arms stretched up. Try to hold your arms straight up only for five minutes, and you will feel that they gradually grow numb. But this man always sits thus.

His arms seem to become fixed in this unnatural position. As he never uses them they wither away in time. Compared with his large head they might belong to a child. Another purposely extinguishes the light of his eyes by staring day after day straight at the sun with wide-open eyes.

Among the curiosities of India are also the snake-charmers. There are several varieties of them, and it seems difficult to distinguish exactly between them. Some appear to be themselves afraid of the snakes they exhibit, while others handle them with a remarkable contempt of danger. Some pull out the snake's poison fangs so that they may always be safe, while others leave them in, and then everything depends on the charmer's skill and dexterity and the quickness with which he avoids the bite of the snake. It frequently happens that the charmer is bitten and killed by his own snakes.

It is not true, as was formerly believed, that the snake-charmer can entice snakes out of their holes by the soothing tones of his flute and make them dance to his piping. The dancing is a much simpler affair. When the captured snake rears up and sways the upper part of his body to and fro, the charmer holds out some hard object, perhaps a fragment of brick. The snake bites, but hurts himself, and after a while gives up biting. Then the charmer can put his hand in front of the snake's head without being bitten. But when the snake is irritated he still assumes the same attitude of defence, swaying to and fro, and thus he seems to be dancing to the sound of the flute.

There are, however, some daring charmers who, by the strains of their instrument and the movements of their hands, seem to exercise a certain power over

the cobra. They seem to throw the snake into a short faint or stupor, a kind of hypnotic sleep. The charmer takes his place in a courtyard, and the spectators gather round him at a safe distance. He has his cobra in a round, flat basket. The basket he places on the ground and raises the cover. Then he rouses and provokes the snake to make it lift up the upper part of its body and expand its hood with the spectacles. All the time he plays his flute with one hand. With the other he makes waving, mesmeric passes. The snake gradually becomes quiet and calm, and the charmer can press his lips against the scales of its forehead. Then the charmer throws it on one side with a sudden movement, for the snake may have waked up again and be just on the point of biting.

All depends on the charmer's quickness and his knowledge of the snake's disposition. The slightest movement of its muscles and the expression of its eyes is sufficient to indicate the snake's intentions to the charmer. It is said that an expert charmer can play with a freshly caught snake as easily as with an old one. The art consists in lulling the snake to sleep and perceiving when the dangerous moment is coming. During the whole exhibition the monotonous squeak of the flute never ceases. Courage and presence of mind are necessary for such a dangerous game.

Europeans who have seen these snake-men catch cobras say that their skilfulness and boldness are remarkable. They seize the snake with bare hands as it glides through the grass. This is a trick of legerdemain in which everything depends on the dexterity of the fingers and a quickness greater than that of the snake itself. The snake-catcher seizes the tail with his left hand and passes the right with

lightning rapidity along the body up to the head, which he grips with the thumb and forefinger so that the snake is held as in a vice. Probably the trick consists in depriving the snake of support to its body with the left hand and producing undulations which annul those of the reptile itself.

When charmers go out to catch snakes they are always in parties of two or three. Some of them take with them antidotes to snake bites. If a man is bitten, a bandage is wound tightly above the wound and the poison is sucked out. Then a small black stone, as large as an almond, is laid on the wound. This absorbs blood and some at least of the poison. Adhering fast to the wound, it does not fall off until it has finished its work. That so many men die of snake bites is, of course, because assistance comes too late.

When the charmer begins to play with a cobra he fixes his eyes on it and never removes them for a second. And the same is true of the cobra, which keeps its eyes constantly on the charmer. It is like a duel in which one of the combatants is liable to be killed if he does not parry at the right moment. Still more watchful is a cobra when he fights with a mongoose. The mongoose is a small beast of prey of the Viverridæ family. It is barely as large as a cat, has a long body and short legs, and is the deadly enemy of the cobra. There is a splendid story in Mr. Kipling's *Jungle Book* of how a pet mongoose—"Rikki-tikki-tavi"—killed two large cobras.

FOOTNOTES:

[11] Delhi is again to be the capital of the Empire of British India (see footnote on p.

141).

[12] At the great Durbar held at Delhi on December 12, 1911, King George V. announced that the capital of India would be transferred from Calcutta to Delhi.

XI

FROM INDIA TO CHINA (1908)

The Indian Ocean

On October 14, 1908, we leave Bombay in the steamer *Delhi*,[13] which is bound for Shanghai with passengers and cargo. The *Delhi* is a fine steamer, 495 feet long, and of 8000 tons burden; it is one of the great fleet of the Peninsular and Oriental Steam Navigation Company (usually known as the P. & O.), which receives an annual subsidy from the Government to carry the mails to India and Australia. We cast off from the quay, and in about an hour's time are slowly drawing out between the ends of the harbour breakwaters; then the steamer glides more quickly over the bay between innumerable vessels under different flags, and Bombay lies behind us with its large houses, its churches, towers, and chimneys, and its dense forest of ships' masts.

Soon the city has disappeared and we are out on the Indian Ocean. The weather is fine; there is no sea on,

only the faintest swell; sailing boats lie motionless waiting for a wind, and only a faint breeze renews the air under the awnings of the promenade deck. It is so warm and sultry that starched shirts and collars become damp and limp after a couple of hours. We gradually draw off from the coast, but still the mountain chain known as the Western Ghâts, which extends to the southern extremity of India, is visible.

Next morning we leave Goa behind, and at noon have the Laccadive group of islands to starboard. The coast of India is still in sight—a belt of sand, over which the surf rolls in from the sea, surmounted by a fringe of coco-palms. On the morning of October 17 we pass the southernmost point of India, Cape Comorin. Here our course is changed to southeast, and about midday the coast of Ceylon can be distinguished on the horizon. From a long distance we can see the white band of breakers dashing against the beach, and as we approach closer a forest of steamer funnels, sails, and masts, and beyond them a long row of Asiatic and European buildings. That is Colombo, the capital of Ceylon, and a very important port for all vessels which ply between Europe and the Far East. Gently the *Delhi* enters the passage between the harbour moles, and is at once surrounded by a fleet of rowing boats from the shore. Singalese and Hindus swarm up the gangways, and throw themselves with much jabbering on the traveller's possessions. They are scantily clothed with only a shirt or a white sash round the loins and a cloth or a comb on the head.

We go on shore and find in the principal streets of the town a curious jumble of copper-brown coloured people, carriages, tramways, and small, two-wheeled "rickshas" which are pulled by half-naked men. The

huts of the natives and the dwelling-houses of the Europeans nestle among groves of the slender coco-palm.

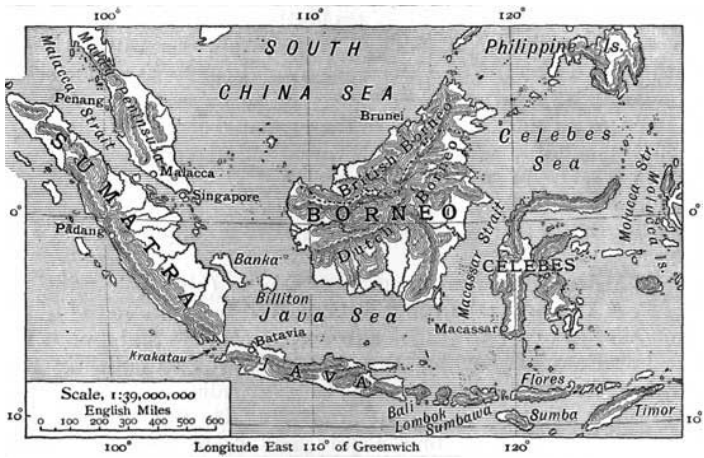
The next day the steamer *Moldavia* (also belonging to the P. & O.) arrived from England, and was moored close to the *Delhi* in order to transfer to her passengers and goods for the Far East, after which the *Moldavia* was to continue her voyage for two weeks more to Australia. When all is ready the *Delhi* swings out to sea again, the band of the *Moldavia* playing a march and her crew and passengers cheering. In the evening we double the southern point of Ceylon, turning due east—a course we shall hold as far as the northern cape of Sumatra, 1000 miles away.

The Sunda Islands

On the morning of October 21 all field-glasses are pointed eastwards. Two small, steep islands stand up out of the sea, a white ring of surf round their shores, and beyond them several other islands come into sight, their woods ever green in the perpetual summer of these hot regions. Now islands crop up on all sides, and we are in the midst of quite an archipelago. To the south-west we can see rain falling over Sumatra.

Asia is the largest continent of the world. It has three other divisions of the world as its neighbours, Europe, Africa, and Australia, and Asia is more or less connected with these, forming with them the land of the eastern hemisphere, while America belongs to the western hemisphere. Europe is so closely and solidly connected with Asia that it may be said to be a peninsula of it. Africa is joined to Asia

by an isthmus 70 miles broad, which since 1869 has been cut through by the Suez Canal. On the other hand, Australia is like an enormous island, and lies quite by itself; the only connection between it and Asia consists of the two series of large islands and innumerable small ones which rise above the surface of the intervening sea. The western chain consists of the Sunda Islands, the eastern of the Philippines and New Guinea. Sumatra is the first island of the immense pontoon bridge which extends south-eastwards from the Malay Peninsula. The next is Java, and then follows a row of medium-sized islands to the east.



THE SUNDA ISLANDS.

The animal and vegetable life of these islands is very abundant. In their woods live elephants, rhinoceroses, and tapirs; in the brushwood lurk tigers and panthers; and in the depths of their primeval forests dwell monkeys of various species. The largest is the orang-utang, which grows to a height of five feet, is very strong, savage and dangerous, and is

almost always seen on trees. On these islands, too, grow many plants and trees which are invaluable to the use of man—sugar-cane, coffee and tea, rice and tobacco, spices, coco-palms, and the tree the bark of which yields the remedy for fever, quinine. This remedy is needed not least on the Sunda Islands themselves, for fever is general in the low-lying districts round the coasts, though the climate 4000 or 5000 feet above sea-level, among the mountains which occupy the interior of the islands, is good and healthy.

The equator passes through the middle of Sumatra and Borneo, and therefore perpetual summer with very moist heat prevails in these islands. The only seasons really distinguishable are the rainy and dry seasons, and the Sunda Islands constitute one of the rainiest regions in the world. The people are Malays and are heathen, but along the coasts Mohammedanism has acquired great influence. The savage tribes of the interior have a blind belief in spirits, which animate all lifeless objects, and the souls of the dead share in the joys and sorrows of the living.

The larger Sunda islands are four: Sumatra, Java, Borneo, and Celebes. Java, one of the most beautiful and most productive countries in the world, has an area nearly equal to that of England without Wales, and its population is also nearly the same—about 30 millions. Sumatra, which the *Delhi* has just left to starboard, is three times the size of Java, but has only one-seventh of its population. The curiously shaped island of Celebes, again, is about half the size of Sumatra, while Borneo is the third largest island on the globe not ranking as a continent, its area being about 300,000 square miles. The Sunda Islands

are subject to Holland, only the north-eastern part of Borneo belonging to England.

In the strait between Sumatra and Java lies a very small volcanic island, Krakatau, which in the summer of 1883 was the scene of one of the most violent eruptions that have taken place in historic times. The island was uninhabited, and was only visited occasionally by fishermen from Sumatra; but if it had been inhabited, not a soul would have survived to relate what took place, for on two other islands which lay a few miles distant the inhabitants were killed to the last man.

The outburst proper began on August 26, and the fire-breathing mountain cast out such quantities of ashes that a layer three feet thick was deposited on the deck of a vessel which happened at the time to be a considerable distance off. It lightened and thundered, the sea was disturbed, and many boats were sunk or hurled up on land. The next day the island fell in and was swallowed up by the sea, only a few fragments of it being left. Thereupon a huge wave, 100 feet high, poured over the neighbouring coasts of Sumatra and Java, washing away towns and villages, woods and railway lines, and when it retreated the country was swept bare, and corpses of men and animals lay all around. This wave was so tremendous that it was propagated as far as the coasts of Africa and America, and it was thus possible to calculate the speed with which it had traversed the oceans. The noise produced by the eruption was so great that it was heard even in Ceylon and Australia, at a distance of 2000 miles. If this outburst had taken place in Vienna, it would have been heard all over Europe and a considerable distance beyond its limits. Loose ashes ejected from

the volcano fell over the earth, covering an area considerably larger than France, and 40,000 persons perished.

Penang and Singapore

The *Delhi* holds her course for Penang, a town on a small island close to the coast of the Malay Peninsula. At length land is sighted straight ahead, and the letter-writers make haste to get their correspondence ready. We glide into a beautiful sound, the anchor rattles out, and we are at once surrounded by a swarm of curious boats which come to establish communication between the vessel and the town.

The main street of Penang—with its large buildings, hotels, banks, clubs, and commercial houses—presents much the same appearance as almost always meets the eye in the port towns on the south coast of Asia. The small single-seated "ricksha" is drawn by a Chinaman in a loose blue blouse, bare-legged, and with a pointed straw hat on his head. We go out to the Botanical Gardens, and find them really wonderful. There are trees and plants from India, the Sunda Islands, and Australia, all labelled with their English and scientific names. Monkeys climb actively among the trees, and sit swinging on the boughs, and a high waterfall tumbles down a cliff surrounded by dense luxuriant vegetation.

Darkness falls suddenly, as always in the tropics, and is accompanied by pelting rain. In a few moments all the roads are under water. The rain pours down, not in drops but in long streams of water, and we are wet through long before we reach the pier where the launch is waiting.

Soon after we get on board, the *Delhi* moves out into the night down the Strait of Malacca. Singapore is only thirty hours' voyage ahead, and the steamer follows closely the coast of the Malay Peninsula. At sunrise on October 24 we arrive. Singapore is the chief town of the Malay Peninsula, which is subject to Great Britain, and contains nearly a quarter of a million inhabitants—Europeans, Malays, Indians, but mostly Chinese. All steamers to and from the Far East call at Singapore, which is also the chief commercial emporium for the Sunda Islands and the whole of the Dutch Archipelago. It lies one degree of latitude north of the equator, and the consequence is that there is a difference of only three degrees of temperature between winter and summer. It is always warm, and rain falls almost every day.

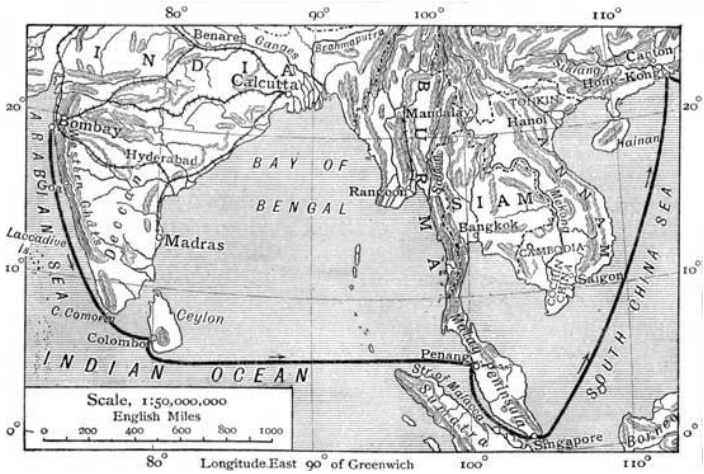
At five o'clock the same afternoon the *Delhi* steams out again, accompanied by a swarm of light canoes rowed by naked copper-brown Malay boys. These boys swim like fishes, and they come out to the steamers to dive for silver coins which the passengers throw into the sea for them. When the *Delhi* increases her pace, they drop behind and paddle back to the harbour with the proceeds of their diving feats. The sound gradually widens out, and as long as twilight lasts the land and islands are in sight. Then we turn off north-eastwards, leaving the equator behind us, and steer out over the Chinese Sea after having doubled the southernmost extremity of the Asiatic mainland.

Up the China Sea

In two days we had left Cochin-China, Saigon, and the great delta of the Mekong behind us, and when

on October 27 we came into contact with the current from the north-east which sweeps along the coast of Annam, the temperature fell several degrees and the weather became fresher and more agreeable. The north-east monsoon had just set in, and the farther we sailed northwards the harder it would blow in our faces. We had then to choose between two routes —either out to sea with heavy surge and boisterous wind; or along the coast, where the current would similarly hinder us. Whichever way was chosen the vessel would lose a couple of knots in her speed. The captain chose the course along the coast.

The eastern part of the peninsula of Further India consists of the French possessions, Cambodia, Cochin-China, Annam, and Tonkin. Hanoi, the capital of Tonkin, is the headquarters of the Governor-General of all French Indo-China. To the south Saigon is the most important town; it is situated in the Mekong delta, which is increasing in size every year by the addition of the vast quantities of silt carried down by the great river. The country abounds in wild animals, elephants, tigers, rhinoceroses, alligators, poisonous snakes, monkeys, parrots, and peacocks. In area the French possessions are about half as large again as France itself, and the population is about 20 millions.



MAP SHOWING VOYAGE FROM BOMBAY TO HONG KONG (pp. 152-160).

A large part of Further India is occupied by the kingdom of Siam, which lies between the lower courses of the Mekong and the Salwin, both of which rise in eastern Tibet. Siam is about two-thirds the size of French Indo-China, but has only 9 million inhabitants of various races—Siamese, Chinese, Malays, and Laos. Bangkok, the capital of the King of Siam, contains half a million inhabitants, and is intersected by numerous canals, on which a large proportion of the people live in floating houses. There are many fine and famous pagodas, or temples, with statues of Buddha. Some of them are of gold. In Siam the Buddhist religion has been preserved pure and uncorrupted. The white elephant is considered sacred, and the flag of Siam exhibits a white elephant on a red field. The Siamese are of Mongolian origin, of medium, sturdy build, with a yellowish-brown complexion, but are not highly gifted. They are addicted to song, music, and games,

and among their curious customs is that of colouring the teeth black.



PLATE XVI. ON THE CANTON RIVER.

On the morning of October 29 we steam past a fringe of islets, the beautiful and charming entrance to Hong Kong. The north-east monsoon is blowing freshly, and the salt foam hisses round the bow of the *Delhi* and falls on the deck in fine spray lighted by the sun. There is little sea, for we are in among the islands which check and subdue the violence of the waves. At noon we glide in between a small holm and the island into the excellent and roomy harbour of Hong Kong, well sheltered on all sides from wind and waves. A flotilla of steam launches comes out to meet us as we glide slowly among innumerable vessels to our anchorage and buoys. Here flutter in the wind the flags of all commercial nations; the English, Chinese, Japanese, American, and German colours fly side by side. The water in the harbour basin is so shallow that the turn of the propeller stirs up the greyish-brown mud from the bottom.

Victoria is the chief town of Hong Kong, and contains nearly the half of the population, which amounts to 440,000 souls, most of them Chinese.

There are five important points on the sea-route to the Far East—Gibraltar, Aden, Colombo, Singapore, and Hong Kong—and all of them are in the hands of England.

Hong Kong has been a British Crown Colony since 1842, and it is now an extraordinarily important port. Vessels with an aggregate tonnage of nearly 20 millions pass through Hong Kong annually, and the little island surpasses in this respect even London, Hamburg, and New York. Regular lines of steamers connect Hong Kong with countless ports in Asia, America, Europe, and Australia, and the trade of the port is immense. It is also a station for the east Asiatic squadron of the Royal Navy—with fine docks and berths, a coal depôt, arsenal, and barracks.

Ninety miles north-west of Hong Kong lies the second city of China, Canton (Plate XVI.). It stands near the mouths of two rivers which give access to the interior of the country, and Canton is therefore an important commercial town, surpassed only by Shanghai. The famous Chinese silk is exported from Canton in larger quantities than from any other town, and the industries of silk-weaving, porcelain, and other manufactures are flourishing. Canton is one of the thirty-seven Chinese "treaty ports"—that is, those which are open to foreign commerce. It has 900,000 inhabitants, and is the capital of the southernmost of the eighteen provinces of China proper and the residence of a viceroy. Its streets are so narrow that no wheeled vehicle can pass through them. A large part of the inhabitants live on boats

moored to posts on the river. A railway 1200 miles long connects Canton with the capital of the empire, Peking.

FOOTNOTES:

[13] This is the vessel which was wrecked on the coast of Morocco, near Cape Spartel, on December 13, 1911, having the Duke and Duchess of Fife (Princess Royal) on board.

XII

CHINA[14]

To Shanghai

From Hong Kong the *Delhi* ploughs her way along the Chinese coast, and next day (October 31) we are right out in the track of the north-east monsoon. The sea is high and dead against us, and the wind is so strong that we can hardly go up on deck. It becomes steadily cooler as we advance northwards.

To the east we have now the large island of Formosa, which was annexed by Japan sixteen years ago. It is about twice the size of Wales, and marks the boundary between the China Sea and the Eastern Sea, which farther north passes into the Yellow Sea. The coast and its hills are sometimes seen close at hand, sometimes far off, and sometimes they

disappear in the distance. With a glass we can distinguish the lighthouses, always erected on small islands off the mainland. The Chinese coast is dangerous, being full of reefs, holms, and shallows.

Hong Kong and the adjoining seas are visited from the middle of July to the middle of September by the destructive whirlwinds called typhoons. The vortices, spinning round with tremendous rapidity, are usually formed far out in the Pacific Ocean, and gradually advance towards the mainland. They move at a rate of nine miles an hour, and therefore the weather stations on the Philippines, and other islands lying in the track of the typhoons, can send warnings by telegraph to the Chinese coast. Then the black triangle is hoisted on a tall mast in the harbour of Hong Kong, for instance, and is visible for a long distance. Every one knows what it means: a typhoon is on the way. The Chinese junks make in towards land, where they find shelter under the high coast, and all other vessels strengthen their moorings.

On November 2 we know by the yellowish-brown colour of the water that we are off the mouth of the Blue River, as the Yang-tse-kiang is called by Europeans. A pilot comes on board to take us through the dangerous, uncertain fairway, and a little later we have flat land on both sides of us, and are in the estuary of the river.

Shanghai is situated on a small affluent which runs into the Yang-tse-kiang close to its mouth, and large ocean steamers cannot go up to the town. After the *Delhi* has dropped its anchor we proceed up the river in a steam tender. The low banks soon become more animated, the houses stand closer together, factories appear amongst them, and Chinese vessels lie

moored on both sides, including two sorry warships of wood, relics of a time gone by. They are high in the bow and stern, and from the mast floats the blue dragon on its yellow field.[15] At length the stately "bund" of Shanghai comes into sight with a row of fine, tall houses. This is not China, but a bit of Europe, the white town in the yellow land, the great and wealthy Shanghai with its 12,000 Europeans, beside the Chinese town inhabited by 650,000 natives.

Next day, November 3, occurred two noted birthdays, those of the Dowager Empress of China and of the Emperor of Japan. They were both remarkable for their powerful minds and wisdom, and have made their names immortal in the extreme East. The Consul-General of Japan held a reception, and the Governor of Shanghai a brilliant dinner.

We saw much that was curious and interesting, and our time was fully occupied during our short stay in the largest shipping and commercial port of China. From the European streets with electric light and tramways, churches, clubs, merchants' offices, and public buildings, tidal docks and wharves, we reach in a few minutes the Chinese town, pure, unadulterated Asia. It swarms with yellow men in blue coats and black vests with small brass buttons, white stockings, black shoes with thick, flat soles, a small black skull-cap with a red button on the head, and a long pigtail behind. There dealers sit in their open shops, smoking long, small pipes while waiting for customers. The tea-houses are full. A noise and tumult beyond description, a constant going and coming, a continual exchange of coin and goods.

The religion of the Chinese is a mixture of different

doctrines and rules of wisdom. China has had more wise men than any other old country in the world. Foremost among them is Confucius, a contemporary of Buddha and Socrates. He wrote a book of three hundred odes, and called it *Purity of Thought*. Twelve disciples gathered round him, and a larger circle of three thousand. "Do not to others what you would not that they should do to you" was one of his precepts. When Confucius was asked how he had contrived to acquire deep knowledge of so many things, he replied, "Because I was born poor and had to learn." He considered wealth a misfortune and knowledge power. The Chinese reverence his memory, and regard him not as a god but as the wisest man of all ages.

Along with Confucianism, Taoism exists in China. The sublime teaching of the founder has, however, been corrupted and degraded to jugglery and superstition. At the commencement of our era Buddhism was introduced into China, and now is spread over almost all the country. There is, however, no clearness in the religious conceptions of the Chinese. A Taoist may perform his devotions in the morning in a Buddhist temple and in the evening be deeply interested in the writings of Confucius. Many therefore have an equal respect for all three systems.

The basis, however, of Chinese religious thought is ancestor worship. Whether they are Confucians, like most of the mandarins, or Taoists or Buddhists, like the common people, Chinamen always cherish the same reverence for the souls of their forefathers. An altar in their honour is raised in even the simplest house. The graves may not be disturbed, and nothing but respect is cherished for the memory of the

departed. In the seventeenth century the Manchu emperor, Kang Hi, ruled China for sixty-one years with a power and wisdom which made him one of the greatest monarchs of any age. His grandson, Kien Lung, inherited all his excellent qualities, and when he had ruled China for nearly sixty-one years he abdicated simply in order that, out of respect to his ancestor, the years of his reign might not exceed his grandfather's.

One consequence of this ancestor worship is that enormous areas of China are covered with graves. The Mongol emperor, Kublai Khan, who reigned at the end of the thirteenth century, roused furious opposition by ordering that all the burial-grounds should be broken up and turned into fields. At the present time, when new railways are spreading mile after mile through China, the sanctity of the graveyards is one of the greatest obstacles to engineers. The Chinese will not disturb the slumbers of their forefathers, and therefore the railway has often to pass round a hallowed place or avoid it by means of a bridge. The Emperor himself travels to Mukden simply to make offerings at the graves of his ancestors. Kang Hi and Kien Lung are buried in Mukden, and their dynasty, the Manchu, still rules over the country.

The Chinese feel this association with a past life more strongly than with the future, and the worship of their ancestors almost takes the place of affection for their fatherland. They certainly love their own homes, but what goes on in other parts of the country is a matter of indifference to them. To the Cantonese it matters not whether the Russians take Manchuria or the Japanese Korea, provided only that Canton is left in peace. Ancestor worship may be

said, indeed, to be the true religion of the Chinese. For the rest they are filled with an unreasoning fear of spirits, and have recourse to many different gods who, they believe, can control these influences for good and evil. They are very superstitious. If any one falls sick of fever and becomes delirious, his relations believe that his soul has gone astray. They carry his clothes round the spot where he lost consciousness in order to bring his soul into the right track again; and at night they go up to the roof and wave a lantern to guide the soul home.

"The Middle Kingdom"

The first things a Chinese schoolboy is taught are that the sky is round, the earth quadrangular, and that China is situated in the middle of the earth, and on that account is called the "Middle Kingdom." All other countries lie around China and are its vassals.

The Emperor is called the "Son of Heaven," and holds the supreme spiritual and temporal power in his hands. On his accession he gives an arbitrary name to his reign, which also becomes his own. He chooses his successor himself from among his sons. If he is childless he chooses one of his nearest relations, but then he adopts his future successor that the latter may make offerings to the souls of himself and his ancestors. The yellow robe and the five-clawed dragon are the emblems of the imperial house. The Emperor is immeasurably superior to his people, and the mortals who may speak to him are easily counted. A few years ago the European ambassadors in Peking exacted the right to see the Emperor every New Year's Day. This they did, but had no talk with him.

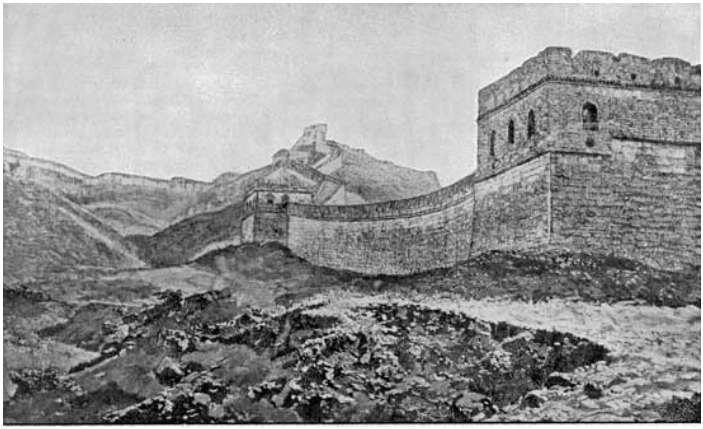


PLATE XVII. THE GREAT WALL OF CHINA.

China is the oldest, the most populous, and the most conservative kingdom in the world. In the time of Nineveh and Babylon it had attained to a high civilization, and has remained the same through 4000 years. Of Nineveh and Babylon only rubbish heaps are left, but China still shows no sign of decay. Western Asia is like a vast graveyard with innumerable monuments of bygone times. There devastating migrations of peoples took place, and races and dynasties contended and succeeded one another. But China is still the same as ever. The isolated position of the country and the objection of the people to contact with foreigners have contributed to this. The reverence for the old state of things and for the memory of their forefathers makes a new generation similar to the preceding.

During the twenty-two centuries before the birth of Christ three imperial families ruled in China in succession. Two and a half centuries before our era a powerful and far-sighted emperor built the Great

Wall, the mightiest erection ever completed by human hands (Plate XVII.). This wall is 1500 miles long, 50 feet high, and 26 thick at the bottom and 16 at the top. Towers stand at certain intervals, and there are gates here and there. It is constructed of stone, brick, and earth. It is in parts much ruined, especially in the west, and in some places only heaps of earth are left.

Why was this immense wall erected? The Chinese are a peaceful people, and they surrounded themselves with walls to prevent intrusion from outside. In China there are 1553 towns enclosed in massive stone walls, and the great emperor in the third century B.C. naturally thought of building a wall in the same way all round his extensive kingdom. It was principally from the north that danger threatened. There lived the nomads of Eastern Turkestan and Mongolia, savage, brave, and warlike horsemen. To them the Chinese wall was an insurmountable obstacle. But precisely on that account this wall has also affected the destiny of Europe, for the wild mounted hordes, finding the way southwards to China barred, advanced westwards instead, and in the fourth century, in conjunction with the Alans, overran extensive areas of Europe.

The Great Wall, however, could not protect China for ever. In the year 1280 the country was conquered by Jenghis Khan's grandson, Kublai Khan, Marco Polo's friend and patron. He, too, was a great builder. He constructed the Grand Canal (see map, p. 174) between Peking and Hang-chau, immediately to the south-west of Shanghai. His idea was that the rice harvest of the southern provinces should also benefit the northern parts of the country. Previously the rice had been freighted on junks and carried along the

coast, where it was exposed to the attacks of Japanese pirates. Now the junks could pass safely through the country by the new canal. The imperial canal is 840 miles long, crosses the Yellow and Blue rivers, and is still in use. It is a memorial of the hundred years' rule of the Mongols.

In 1644 China was conquered by the Manchu dynasty, which still reigns. Exactly a hundred years earlier the Portuguese had seized Macao, not far from Hong Kong. Since then, and particularly during recent decades, Europeans have encroached on Chinese soil. The French possessions on the peninsula of Further India were formerly under Chinese protection. The Great Powers have made themselves masters of some of the best harbours in China. On two occasions, the latter during the Boxer insurrection in 1900, Peking has been entered by the combined troops of European nations.

The "Middle Kingdom" is China proper, but the "Son of Heaven" also rules over four dependencies, Eastern Turkestan, Mongolia, Manchuria, and Tibet. The area of the Chinese Empire altogether is thirty-five times that of the British Isles, and its population is ten times as numerous, being about 433 millions; indeed, every third or fourth man in the world is a Chinaman.

Owing to the situation of the country the climate is good and healthy. The differences of temperature between winter and summer are large; in the south reigns almost tropical heat; in the north, in the districts round Peking, the winter is bitterly cold. The soil is exceedingly fruitful. Tea, rice, millet, maize, oats, barley, beans, peas, vegetables, and many other crops are grown. In the southern

provinces the fields are full of sugar-cane and cotton bushes. The whole country is intersected by large rivers, which serve for irrigation and the transport of goods. In the west rise lofty mountains, forming continuations of the Tibetan ranges. Eastwards they become lower. The greater part of China is a mountainous country, but lowlands extend along the coast. Six of the eighteen provinces border on the coast, which abounds in excellent harbours.

The "Middle Kingdom" is, then, a fortunate country, one richly endowed by nature in every respect. In the mountains lies inexhaustible wealth of minerals, and China possesses larger coal-fields than any other land in the world. Its future is, therefore, secured, and China's development may some time surpass that of America.

It is well known that a country which has deeply indented coasts gains an early and extensive development. Thus Greece was in old times the home of learning and art; and thus Europe now dominates the rest of the world. For a people which dwells within such coasts comes sooner and more easily than others into contact with its neighbours, and by commercial intercourse can avail itself of their resources and inventions. But in this, as in so many other respects, China is an exception. The Chinese have never made use of their coast. They have, on the contrary, avoided all contact with foreigners, and their development within their own boundaries has therefore been exceedingly peculiar. Their culture is different from anything else, and yet it is most estimable and refined.

Two thousand years before Christ the Chinese had written characters. Later they invented the hair

pencil, which is in use to this day. They grind down a jet-black ink, in which they dip the brush, and hold it vertically when they write. The manufacture of the ink is their secret, and the "Indian ink" which we use in Europe is obtained from them. A hundred years after Christ paper was made in China. In an ancient town at Lop-nor, where wild camels now roam, I found a collection of Chinese letters and documents on paper which had remained buried in the desert since A.D. 265. In A.D. 600 the Chinese had invented the art of printing, which in Europe was not invented until 850 years later. The Chinese were acquainted with the magnetic needle 1100 years before Christ, and made compasses, and they knew of gunpowder long before Europeans. Three thousand years ago the Chinese were proficient in the art of casting bronze. In the interior of the country are still to be found most beautiful objects in bronze—round bowls on feet decorated with lions and dragons, vases, dishes, cups, and jugs, all of dark, heavy bronze executed with the finest and most artistic detail. The porcelain manufacture attained its greatest excellence in the time of Kang Hi and Kien Lung. Then were made vases, bowls, and dishes of such exceeding perfection that neither the Chinese themselves nor any other people at the present time can produce their match. The arrangement of colours and the glaze excite the admiration of all connoisseurs. Porcelain articles of this period are now extremely rare, and fetch enormous prices. In Japan I saw a small green Chinese bowl on three feet, with a cover, which had cost eleven hundred pounds. Compared to the Kang Hi vases, the finest porcelain that can be produced nowadays is mere rubbish.

The Chinese language is as singular as everything else in the great kingdom. Every word is

unchangeable. While we say "go, went, gone, will go, should go, going," the Chinese always say simply "go." The precise meaning is shown by the position of the word in a sentence or by the help of certain auxiliary words, as, for example, "I morning go," "We yesterday go," where the future or past tense is indicated by the words "morning" and "yesterday." A single word, *li*, for instance, may have a number of different significations, and what it denotes in any particular case depends on the tone and pronunciation, on its position in the sentence, and on the word which comes before or after. The language is divided into many different dialects, of which the principal is the mandarin or the dialect of the educated. Every word has its particular written sign, and the Chinese language accordingly possesses 24,000 different written characters; only one man in twenty and one woman in a hundred can read and write it.

Chinese literature is exceedingly rich, almost inexhaustible. At a time when the bronze age still reigned in northern Europe, the Chinese had a highly cultivated literature. From the fifth century B.C. down to our own day it has run an uninterrupted course through centuries and ages. When the northern vikings were executing their plundering raids by sea and setting up their runic stones, a geographical hand-book was published in China called a "Description of all the Provinces" and abundantly illustrated by maps. Thanks to their chronicles we can follow the history of the Chinese for 4000 years back. And the most remarkable feature of these annals is that they are distinguished by the strictest accuracy and reliability. All kinds of subjects are alluded to, even the most insignificant events. Chinese books are very cheap, and every one

who can read can provide himself with quite a large library. Of the numbers of books we can have some conception when we hear that the Emperor Kieng Lung had a library so large that the catalogue of his books filled 122 volumes.

The Blue River

The Blue River, or Yang-tse-kiang, the Mekong, and the Salwin all rise in eastern Tibet and flow quite close to one another southwards through deeply excavated parallel valleys. But while the first two continue their southerly course all the way to the sea, the Blue River turns off sharply eastwards in western China and divides the Middle Kingdom in two.

It is only Europeans who sometimes call the largest river of China the "Blue" River. The Chinese themselves call it the "Great" River, or the "Long" River, or, far up the country to the west, the "River of Golden Sand." Only three rivers in the world are longer, namely, the Nile, the Mississippi, and the Amazon. The Obi and Yenisei are about the same length, 3200 miles. The Blue River discharges 244 times the volume of water of the Thames.

In one respect the Blue River is far superior to all the waterways of the world, for on this river and its tributaries, or, in short, in the area of its drainage basin, live not less than 180 millions of human beings, or an eighth of the total population of the world. The parts of China proper situated on the Blue River are called the River Provinces. The viceroy of two of these, namely Hupeh and Hunan, has more subjects than any country in Europe, except Russia. The most westerly province of China, Sze-chuan,

traversed by the Blue River, is in area and population equal to France. Europe shrinks up to nothing before such comparisons.

On the Blue River stands a series of famous old towns. Chungking is the capital of Sze-chuan, and thus far European steamers ascend the river. Hankow is the largest commercial town in the interior of China. Nanking, near the mouth, was formerly the capital of China. South-west of Hankow a large lake lies on the southern bank of the Blue River. *Hu* means lake in Chinese, *king* is a capital city, *pe* signifies north, and *nan* south. Peking, therefore, means the "northern capital," and Nanking the "southern capital"; Hupeh signifies "north of the lake," and Hunan "south of the lake."

The province of Hunan, south of the lake, is one of the most noteworthy in all China. Its people are a vigorous and independent race, and make the best soldiers in China. They are more hostile to foreigners than other Chinese, and the capital of Hunan, Chang-sha, has been of old a centre of opposition to foreigners and of revolutionary agitations.

Even large ocean liners ascend to Hankow, and smaller steamboats to the capital of Sze-chuan. The latter are formidable competitors to the junks, many thousands of which have from time immemorial provided for the transport and traffic on the great river. There are many different kinds of junk. Some are large, others small; some are built for the lower, quieter waters of the river, others for the rapids in Hupeh and Sze-chuan. But they are all well suited to their purpose, and are an ornament to the grand beauty of the constantly changing landscape through which the river has cut its valley.

In some districts the junks are built of cypress wood, in others of oaken planks. This is to make the boats more elastic and supple, and to diminish the risk of springing a leak among the rapids. Where the danger is unusually great a pilot is taken on board, but still it is reckoned that one junk in ten runs aground, and one in twenty is totally wrecked. To go from Hankow to Chungking takes thirty-five days, and to come down in the opposite direction with the stream only nine days. The voyage down the river is much more dangerous, and on this voyage most of the shipwrecks occur.

Every large junk has a small dinghy to convey passengers and goods to and from the shore. A large junk is 40 feet long. It is high at the stern, and here stands a kind of cabin roofed with plaited straw or grass matting. A junk going upstream carries a cargo of two and a half tons, one going down six tons. The vessel is propelled by oars, some of which are so large that they require eight men each. These are needed most in drifting with the current, when the boat must be controlled by the steering oars. The junk has also a mast and sail which is used in going upstream with a favourable wind, and is lowered when coming down with the current. Only the bow is decked.

It may well be asked how it is possible to get such a large heavily laden boat up against the strong river current, for it is evident that however favourable the wind might be, the vessel would be carried down the rapids. A long rope of twisted bamboo a hundred yards long is fastened to the bow of the junk, and with this the vessel is dragged up by some sixty men who run along the bank. The bank, however, is usually steep, with dangerous rocks projecting out

into the river, and over these the men have to scramble like monkeys, still pulling at their rope. Often neither the boat nor the river is visible from the rocky path, but the skipper of the boat is in constant communication with the towing men by means of drums on board. Six men are always ready to clear the rope if it catches against any projection, and others, who are stark naked, do the same work in the water. On the cliffs along the river, grooves and marks have been worn out by the ropes, for towing has here been practised for thousands of years. There is always a score of men on board to steer and fend off the boat with poles. They have also bamboo poles with hooks at the end to help in dragging the boat up against the current.

These men work like galley-slaves, and their work is both dangerous and exhausting. Week after week they walk with bent backs struggling under the towing rope. They are covered with bruises, which scarcely heal up before they are torn open again, and especially on the shoulders the marks of the rope are visible. They have a hard life, and yet they are cheerful. They are treated like dogs, and yet they sing. And what wages do they receive for a journey of thirty-five days up the river? Three shillings, besides three meals of rice a day, and meat three times during the journey! For the down journey, when the work is much easier and the time only one-fourth, they receive only a shilling. These labourers earn about 1-1/4d. for ten hours' work.

In February the river is lowest and the water clearest. Then the towns and villages stand 160 feet above the surface of the river. Their walls, staircases, gates, and pagodas stand up in the flat triangles of the valley openings. Every inch of hill and valley is

covered with fields or woods. Later in the spring the river begins to rise, and in summer is a huge rolling volume of chocolate-brown or greyish water. At certain places where the valley is narrow the water may rise a hundred feet higher than in February. A voyage on it is then more dangerous, for banks, boulders, and reefs are covered with water and form whirlpools and seething eddies.

Below the towns and villages shoals of junks lie moored waiting for work. Every cliff, every bend has its name—Yellow Hat, Sleeping Swine, Double Dragon, etc. Nor are pirates wanting. They have their haunts among the mountains, and fall upon the junks at convenient points. Sometimes large white notices are seen on projecting rocks. They may be "The waterway is not clear," or "Small junks should anchor here." Thus the boatowners are warned of danger.

The earnings of a boatowner are not large, and he is glad enough if he can bring his boat back to Hankow in safety after a voyage up and down the river. With anything but pleasure he sees the large Russian vessels lying at Hankow and taking in tea. Hankow is the greatest tea port of China, and China is the home of the tea plant. It is not more than 250 years since tea was first known in Europe, where it is now in general use, as also in many other parts of the world. In England and Russia it is a national drink, and the Russians used formerly to transport their tea to Europe by caravans through Mongolia and Siberia. Now the export of tea from China has declined, and the Middle Kingdom has been outstripped by India and Ceylon.

In Northern China

In the north-westernmost province of the kingdom, Kansu, is a famous old town, named Si-ning, surrounded with a fine stone wall. I had completed my first journey through Tibet and came to Si-ning on November 23, 1896, accompanied by my servant, Islam Bay.

When we left Si-ning we had a riding horse each, and six mules with their three drivers. They accompanied us for some days as far as a small town, where we exchanged them for two large, heavy carts on two wheels and covered with a tilt of straw matting. In one we packed all our things, in the other I took my seat, while Islam rode. Each cart was drawn by a mule and two horses, driven by a pleasant Chinaman. I had no interpreter, and had to get along with the few words I had managed to pick up.

For six days we travelled northwards through the Kansu mountains, going up and down all the way over stony passes and over frozen rivers with or without neck-breaking bridges. The carts creaked and rocked through narrow hollow roads where it would have been impossible to pass a cart coming from the opposite direction. In such places, therefore, one of our drivers went on in front shouting to keep the road clear. Fortunately we were in the company of other carts. When two carts meet where the road is narrow, it is customary for the smaller one to back and leave the road open for the larger.

We set out just after midnight, and drove on till noon. In spite of furs and rugs I was almost frozen through. Islam preferred to go on foot, and the drivers who ran beside the wagons also managed to keep themselves warm.

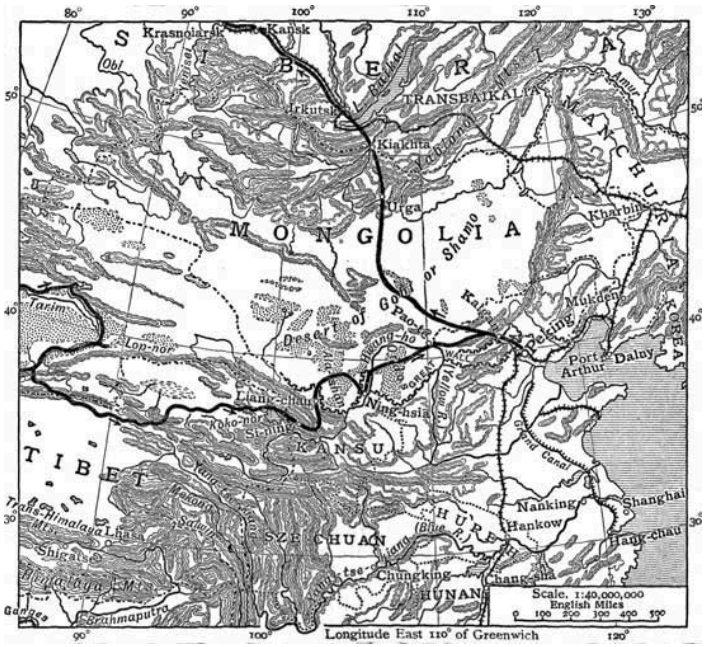
At break of day on December 10 we came to the

bank of a stream which falls into the Yellow River (Hwang-ho). It was frozen quite across, and a path of sand showed where the route crossed the river. Our companions were to go over first in one of their carts with a team of three horses. They dashed at full gallop out on to the ice, but had not gone far before a wheel cut through the ice and the cart was held fast as in a vice. The whole load had to be taken out and carried over to the farther bank, and after much trouble the empty cart was hoisted up.

At a broader place the men cut up the thin ice in the middle of the bed where the water was three feet deep, and when another cart tried its luck it pitched suddenly down into the opening and remained fast. Two additional horses were attached, and all the men shouted and cracked their whips. The horses reared, fell, were nearly drowned under the ice, threw themselves about and jumped up on to the ice, only to drop back again into the hole. A young Chinaman then threw off every stitch of clothing and went into the water, 18° below freezing-point, to pull away the pieces of ice and stones which held back the wheels. I cannot tell how it was that he was not frozen to death. He afterwards warmed himself at a fire made by Islam Bay. We struggled for four hours before at last the irritating river was behind us.

In Liang-chau, a town of 100,000 inhabitants, with a quadrangular wall, handsome gates, and broad, busy streets, we stayed with some missionaries. Here we had to wait twelve whole days before we could procure nine camels and two men who were willing to take us to the town Ning-hsia on the Yellow River, nearly 300 miles off. The missionaries had no other guest-room than their chapel, which was rather cold; on Christmas Eve the temperature inside was 3°.

For twenty days we travelled through a country called Ala-shan, which for the most part is inhabited by Mongols. We followed a desert track and encamped at wells. Certain belts were buried in drift sand which formed wave-like dunes. Here we were outside China proper and the Great Wall, but we frequently met Chinese caravans. Two horsemen had been assigned to me as an escort by the last Chinese governor, for the country is unsafe owing to robbers. All, however, went well, and we came safely to Ning-hsia on the Yellow River.



MAP OF NORTHERN CHINA AND MONGOLIA, SHOWING JOURNEY FROM TIBET THROUGH SI-NING TO PEKING, AND FROM PEKING TO KANSK (pp. 172-179).

At the time of Dr. Hedin's journey through

Mongolia, the Trans-Siberian Railway did not extend east of Kansk.

From Ning-hsia we had 267 miles to the town Pao-te, and now we had to cross the Mongolian district of Ordos, between the Great Wall and the northern bend of the Yellow River. In summer it is better to travel by boat down the river, which rises in north-eastern Tibet and falls into the northern bay of the Yellow Sea after a course of 2500 miles. The river owes its name to its turbid yellow water, which makes the sea also yellow for some distance from the coast. Elsewhere the Yellow Sea is no yellower than any other.

At that time, in January, the Yellow River was covered with thick ice, and where we crossed it with our nine camels its breadth was 380 yards. Then we made long days' marches through the desert, and had a very hard and troublesome journey. We had indeed with us enough mutton, bread, and rice, and there were wells along the road. One of them was 130 feet deep and was walled round. But we suffered from cold. Sometimes the temperature was only 1.5° at noon,-27° at night, and 16.5° in the tent. Besides, it blew steadily and with the velocity of a hurricane. Fortunately I had bought a small Chinese portable stove, which kept me from freezing. It is not larger than an ordinary teapot and has a perforated cover. A few pieces of glowing charcoal are embedded in ashes in the tin, which is thus kept warm all day. Up on the camel I had this little comforting contrivance on my knees, and at night I laid it among my rugs when I crept into bed. One day there was such a furious storm over the level and exposed country that we could not move from the spot. We sat

wrapped up in our furs and rugs and simply froze.

On arrival at Pao-te I had still 430 miles to travel to the capital of the kingdom, Peking. I was eager to be there, and resolved to hurry forward by forced marches. I hired a small two-wheeled cart, and had no servant with me but the Chinese driver. Islam with an interpreter was to follow slowly after with our baggage.

On this route no fewer than sixty-one Swedish missionaries were at work, and I often stayed in their hospitable houses. At other times I put up in the country inns. They are incredibly dirty, full of noisy travellers, smoke, and vermin. The guest room where you sleep at night must be shared with others. Along the inner wall stands a raised ledge of bricks. It is built like an oven and is heated with cattle-dung beneath; and on the platform the sleeper, if not half suffocated, is at any rate half roasted.

In Kalgan (Chang-kia-kau), where the Great Wall is passed, I exchanged my cart for a carrying chair on two long poles. It was borne by two mules which trotted along over the narrow mountain road leading to Peking. Sometimes we were high above the valley bottom, and met whole rows of caravans, carts, riders, and foot passengers, chairs with mules, and every one was in constant danger of being pushed over the edge.



PLATE XVIII. GATE IN THE WALLS OF PEKING.

At last, on March 2, I arrived at Peking, after 1237 days of travelling through Asia, and passed through one of the fine gates in the city walls (Plate XVIII.).

Mongolia

Between China in the south and Eastern Siberia on the north, stretches the immense region of inner Asia which is called Mongolia. The Chinese call it the "grass country," but very large parts of it are waterless desert, where drift-sand is piled up into dunes, and caravan routes and wells are far apart. The belt of desert, one of the largest in the world, is called by the Mongols Gobi, a word which in their language denotes desert. The Chinese call it Shamo, which signifies sandy desert.

Mongolia is subject to China, and the Mongols' spiritual superior or pope is the Dalai Lama. They have also a number of Lama monasteries, and make yearly pilgrimages in large parties to Lhasa. An

extraordinary proportion of the male population of the country devote themselves to a religious life and become monks. The Chinese are glad of it, for the peaceful cloister life causes the formerly savage and warlike Mongol hordes to forget their own strength. Services before the image of Buddha in the temple halls lead their thoughts in other directions, and they forget that their people once held the sceptre over almost all Asia and half Europe. They do not remember that their forefathers, the Golden Horde, forced their way seven hundred years ago through the Caucasus, levied tribute throughout Russia, and alarmed all the rest of the West. They have forgotten that their fathers conquered all the Middle Kingdom and digged in yellow earth the Grand Canal on which the junks of the Chinese still ply. The sword has rusted fast in its sheath, and the Mongolian chiefs, whom the Chinese call vassals or dependent princes, encamp peacefully on the steppes under their eight *bans*.

The Mongols are nomads. They own large flocks of sheep and goats, and live on mutton, milk, butter, and cheese. Among their domestic animals are also the two-humped camel and a small, hardy, strongly built horse. Their life is a perpetual wandering. They move with their flocks from one steppe to another. If the herbage is dried up in a district, or all the pasture is eaten up, they put their tents on camels and set out to find better grazing. Their tents are exactly the same as those of the Kirghizes of the Pamir and the Kirghiz Steppe. They are shaped like haycocks, and consist of a framework of tough ribs covered with black felt.

The Mongols are a good-tempered and amiable people. I made acquaintance with them on the

outskirts of their wide domain, and once I travelled right through Mongolia. My starting-point was Peking, and my direction due north-west. It was in the end of March and the beginning of April, 1897. At that time the Trans-Siberian Railway was not completed farther than to Kansk, a small town east of the Yenisei. That was the longest drive I ever took in my life, for from Peking to Kansk the distance is 1800 miles, and I only rested a day on the whole journey, namely at Irkutsk, the capital of Eastern Siberia.

In Peking I provided myself with all that was necessary for a journey to the Russian frontier. First and foremost a Chinese passport, which authorised me to call out Mongols and their horses, and, if I wished, to put up in their tents. Then provisions had to be bought—tinned meats, bread, tea, sugar, etc. From the Russian Legation I obtained an escort of two Cossacks, who were very delighted to have this chance of returning to their homes in Siberia after completing their time of service in Peking.

In Mongolia the traveller does not drive in the usual way. There is no driver on the box, and you do not lean back comfortably in a four-wheeled carriage on springs. To begin with, there is no road at all and no rest-houses; but horses must be changed frequently, and this is done in the Mongolian villages. The Mongols, however, are nomads, and their villages are always on the move. Therefore you must know first of all where the villages happen to be, and in the second place must give the people notice to have a certain number of horses ready. A mounted messenger is sent on in advance for this purpose and then the horses are never wanting. Only the Mongols themselves know where the next villages are

situated, and so at every village a fresh retinue of Mongols is provided. And because the villages are being constantly moved you can only travel in a straight line between them, and cannot follow any determined route. You drive along over desert and steppe, and usually see no vestige of an old wheel rut.

The vehicle in which you travel is a very simple contrivance. It is a cart on two medium-sized wheels, closed all over with a rounded tilt covered with blue cloth. A small window in front and two side windows allow you to see over the steppe; the window glass is fixed into the stretched cloth so that it cannot be cracked by the jolting. The cart has no springs, and its bottom rests directly on the axles. There is no seat, and the traveller sits on cushions, furs, and rugs, and there is only room for one person. The cart is of the usual Chinese pattern with shafts for a mule or horse. In China the driver sits on one of the shafts or runs alongside. I had my bags strapped on to the base of the shafts. My large baggage was forwarded on camels, and it reached Stockholm six months after I did.

The style of harnessing is the most curious of all. A loop of rope is fastened to the extreme end of each shaft, and a long, rounded cross-bar is passed through the two loops. Two mounted Mongols lay the bar across their knees in the saddle, but no draught animal is put between the shafts. A rope is fastened to each end of the cross-bar and two other riders wind these ropes twice round their bodies. They have all riding whips, and when all is ready the four riders dash at full speed over the steppe, dragging the cart after them.

Twenty other Mongols ride on each side, half hidden in clouds of dust. Suddenly two of them ride up beside the men who hold the cross-bar on their knees. Of their own accord the two fresh horses slip their heads under the bar, letting it fall on to the riders' knees, while the men who are relieved hold in their horses and let the cart roll on. These then join the rest of the troop. The cart does not stop during this change of horses, which is accomplished in a couple of seconds, and a furious pace is always kept up. In the same way the two front riders and their horses are relieved without stopping. When one of them is tired, a fresh rider comes forward and winds the rope round his waist.

After two or three hours a village of several tents is seen on the steppe ahead of us. About thirty horses are held in readiness by the headman of the village, who has been warned the day before by the messenger. At every stage a few roubles[16] are paid to the Mongol attendants. This payment has always to be made in silver roubles, for the Mongols will not take paper money or small coins.

Thus we go on and on, it would seem interminably, over the boundless steppe—each day the same bumping and jolting, each day the same monotonous landscape. In northern Mongolia, however, snow lay deep on the ground, and here the cart was drawn by men on camels. By this time I was so bruised and worn out with the continual jolting that it was a pleasure to drive on the soft snow.

Marco Polo

In 1162 was born in Mongolia a chief of the savage mounted hordes who bore the name of Jenghiz Khan.

He subdued all the surrounding tribes, and the whole Mongol race was collected under his banner. The more his power increased, the more extensive regions he desired to conquer, and he did not rest till practically all Asia was reduced under his rule. His motto was "One God in heaven and one Great Khan on earth." He was not content with a kingdom as large as that of Alexander or Cæsar, but wished to reign over all the known world, and with this aim before his eyes he rode with his horsemen from country to country over the great continent. Everywhere he left sorrow and mourning, burnt and pillaged towns in his track. He was the greatest and most savage conqueror known in history. When he was at the height of his power he collected treasure from innumerable different peoples, from the peninsula of Further India to Novgorod, from Japan to Silesia. To his court came ambassadors from the French kings and the Turkish sultans, from the Russian Grand Dukes and the Khalifs and Popes of the time. No man before or since has caused such a stir among the sons of men, and brought such different peoples into involuntary communication with one another. Jenghiz Khan ruled over more than half the human race, and even in many of the countries which he pillaged and destroyed his memory is feared even to this day.

At his death Jenghiz Khan was sixty-five years old, and he bequeathed his immense kingdom to his four sons. One of these was the father of Kublai Khan, who conquered China in 1280 and established the Mongolian dynasty in the Middle Kingdom. His court was even more brilliant than that of his grandfather, and an exact description both of the great Khan and his empire was given by the great traveller Marco Polo.

In the year 1260 two merchants from Venice were dwelling in Constantinople. They were named Nicolo and Maffeo Polo. Their desire to open trade relations with Asia induced them to travel to the Crimea, and thence across the Volga and through Bukhara to the court of the Great Khan, Kublai. Up to that time only vague rumours of the great civilized empire far in the East had been spread by Catholic missionaries.

The Great Khan, who had never seen Europeans, was pleased at the arrival of the Venetians, received them kindly, and made them tell of all the wonderful things in their own country. Finally he decided to send them back with a letter to the Pope, in which he begged him to send a hundred wise and learned missionaries out to the East. He wished to employ them in training and enlightening the rude tribes of the steppe.

After nine years' absence the travellers returned to Venice. The Pope was dead, and they waited two years fruitlessly for a successor to be elected. As, then, they did not wish the Great Khan to believe them untrustworthy, they decided to return to the Far East, and on this journey they took with them Nicolo's son, Marco Polo, aged fifteen years.

Our three travellers betook themselves from Syria to Mosul, quite close to the ruins of Nineveh on the Tigris, and thence to Baghdad and Hormuz, a town situated on the small strait between the Persian Gulf and the Arabian Sea. Then they proceeded northwards through the whole of Persia and northern Afghanistan, and along the Amu-darya to the Pamir, following routes which had to wait 600 years for new travellers from Europe. Past Yarkand, Khotan, and Lop-nor, and through the whole of the Gobi

desert, they finally made their way to China.

It was in the year 1275 that, after several years' wanderings, they came to the court of the Great Khan in eastern Mongolia. The potentate was so delighted with Marco Polo, who learned to read and write several Eastern languages, that he took him into his service. The first commission he entrusted to the young Venetian was an official journey to northern and western China. Polo had noticed that Kublai Khan liked to hear curious and extraordinary accounts from foreign countries, and he therefore treasured up in his memory all he saw and experienced in order to relate it to the Emperor on his return. Accordingly he steadily rose higher in the estimation of Kublai Khan, and was sent out on other official journeys, even as far as India and the borders of Tibet, was for three years governor of a large town, and was also employed at the capital, Peking.

Marco Polo relates how the Emperor goes hunting. He sits in a palanquin like a small room, with a roof, and carried by four elephants. The outside of the palanquin is overlaid with plates of beaten gold and the inside is draped with tiger skins. A dozen of his best gerfalcons are beside him, and near at hand ride several of his attendant lords. Presently one of them will exclaim, "Look, Sire, there are some cranes." Then the Emperor has the roof opened and throws out one of the falcons to strike down the game; this sport gives him great satisfaction. Then he comes to his camp, which is composed of 10,000 tents. His own audience tent is so large that it can easily hold 1000 persons, and he has another for private interviews, and a third for sleeping. They are supported by three tent-poles, are covered outside with tiger skins, and inside with ermine and sable.

Marco Polo says that the tents are so fine and costly that it is not every king who could pay for them.

Only the most illustrious noblemen can wait on the Emperor at table. They have cloths of silk and gold wound over their mouths and noses that their breath may not pollute the dishes and cups presented to His Majesty. And every time the Emperor drinks, a powerful band of music strikes up, and all who are present fall on their knees.

All merchants who come to the capital, and especially those who bring gold and silver, precious stones and pearls, must sell their valuables to the Emperor alone. Marco Polo thinks it quite natural that Kublai Khan should have greater treasures than all the kings of the world, for he pays only with paper money, which he makes as he likes, for notes were current at that time in China.

So Marco Polo and his father and uncle lived for many long years in the Middle Kingdom, and by their cleverness and patient industry accumulated much property. But the Emperor, their protector, was old, and they feared that their position would be very different after his death. They longed, too, to go home to Venice, but whenever they spoke of setting out, Kublai Khan bade them stay a little longer.

However, an event occurred which facilitated their departure. Persia also stood under the supremacy of the Mongols, and its prince or Khan was a close connection of Kublai Khan. The Persian Khan had lost his favourite wife, and now desired to carry out the wish she had expressed on her deathbed that he should marry a princess of her own race. Therefore he despatched an embassy to Kublai Khan. It was well received, and a young, beautiful princess was

selected for the Khan of Persia. But the land journey of over 4000 miles from Peking to Tabriz was considered too trying for a young woman, so the ambassadors decided to return by sea.

They had conceived a great friendship and respect for the three Venetians, and they requested Kublai Khan to send them with them, for they were skilful mariners, and Marco Polo had lately been in India, and could give them much valuable information about the sea route thither. At last Kublai Khan yielded, and equipped the whole party with great liberality. In the year 1292 they sailed southwards from the coast of China.

Many misfortunes, storms, shipwreck, and fever befell them on the voyage. They tarried long on the coasts of Sumatra and India, a large part of the crew perished and two of the three ambassadors died, but the young lady and her Venetian cavaliers at last reached Persia safe and sound. As the Khan had died, the princess had to put up with his nephew, and she was much distressed when the Polos took leave of her to return home to Venice by way of Tabriz, Trebizond, the Bosporus, and Constantinople. There they arrived in the year 1295, having been absent for twenty-four years.

Their relatives and friends had supposed them to be dead long before. They had almost forgotten their mother tongue, and appeared in their native city in shabby Asiatic clothes. The first thing they did was to go to the old house of their fathers and knock at the door; but their relations did not recognize them, would not believe their romantic story, and sent them about their business.

The three Polos accordingly took another house and

here made a great feast for all their family. When the guests were all seated round the table and the banquet was about to commence, the three hosts entered, dressed down to the feet in garments of costly crimson silk. And as water was taken round for the guests to wash their hands, they exchanged their dresses for Asiatic mantles of the finest texture, the silken dresses being cut into pieces and distributed among their retainers. Then they appeared in robes of the most valuable velvet, while the mantles were divided among the servants, and lastly the velvet went the same way.

All the guests were astonished at what they saw. When the board was cleared and the servants were gone, Marco Polo brought in the shabby, tattered clothes the three travellers had worn when their relatives would not acknowledge them. The seams of these garments were ripped up with sharp knives, and out poured heaps of jewels on to the table—rubies, sapphires, carbuncles, diamonds, and emeralds. When Kublai Khan gave them leave to depart they exchanged all their wealth for precious stones, because they knew that they could not carry a heavy weight of gold such a long way. They had sewed the stones in their clothes that no one might suspect that they had them.

When the guests saw these treasures scattered over the table their astonishment knew no bounds. And now all had to acknowledge that these three gentlemen were really the missing members of the Polo house. So they became the object of the greatest reverence and respect. When news about them spread through Venice the good citizens crowded to their house, all eager to embrace and welcome the far-travelled men and to pay them homage. "The

young men came daily to visit and converse with the ever polite and gracious Messer Marco, and to ask him questions about Cathay and the Great Can, all which he answered with such kindly courtesy that every man felt himself in a manner his debtor." But when he talked of the Great Khan's immense wealth, and of other treasures accumulated in Eastern lands, he continually spoke of millions and millions, and therefore he was nicknamed by his countrymen Messer Marco Millioni.

At that time, and for long afterwards, great envy and jealousy raged between the three great commercial republics, Venice, Genoa, and Pisa. In the year 1298 the Genoese equipped a mighty fleet which ravaged the Venetian territory on the Dalmatian coast of the Adriatic Sea. Here it was met by the Venetian fleet, in which Marco Polo commanded a galley. After a hot fight the Genoese gained the victory, and with 7000 prisoners sailed home to Genoa, where they made a grand procession through the city amidst the jubilation of the people. The prisoners were put in chains and cast into prison, and among them was Marco Polo.

In the prison Marco had a companion in misfortune, the author Rusticiano from Pisa. It was he who recorded Marco Polo's remarkable adventures in Asia from his dictation, and therefore there is cause of satisfaction at the result of the battle, for otherwise the name of Marco Polo might perhaps have been unknown to posterity.

After a year prisoners were exchanged and Marco Polo returned to Venice, where he married and had three daughters. In the year 1324 he died, and was buried in the Church of San Lorenzo in Venice.

On his deathbed he was admonished to retract his extraordinary narrative. No reliance was placed on his words, and even at the beginning of the eighteenth century there were learned men who maintained that his whole story was an excellently planned romance. The narrative taken down in prison was, however, distributed in an innumerable number of manuscript copies. The great Christopher Columbus, discoverer of America, found in it a support to his conviction that by sailing west a man would at length come to India.

There are many curious statements in Marco Polo's book. He speaks of the "Land of Darkness" in the north, and of islands in the northern sea which lie so far north that if a man travels thither he leaves the pole-star behind him. We miss also much that we should expect to find. Thus, for example, Marco Polo does not once mention the Great Wall, though he must have passed through it several times. Still his book is a treasure of geographical information, and most of his discoveries and reports were confirmed five hundred years later. His life was a long romance, and he occupies one of the most foremost places among discoverers of all ages.

FOOTNOTES:

[14] Since this was written, China has become a republic, the Emperor P'u-yi (born February 11, 1906) having abdicated on February 12, 1912, in consequence of the success of a revolution which broke out in the autumn of 1911. He still retains the title of Manchu Emperor, but with his death the title will cease. A provisional President of the Republic was elected, and the first Cabinet was

constituted on March 29, 1912.

[15] The Republic has adopted a new flag consisting of five stripes—crimson, yellow, white, blue, and black—to denote the five principal races comprised in the Chinese people, Mongol, Chinese, Manchu, Mohammedan, and Tibetan.

[16] A Russian coin, worth about 2s, 1 1/8d.

XIII

JAPAN (1908)

Nagasaki and Kobe

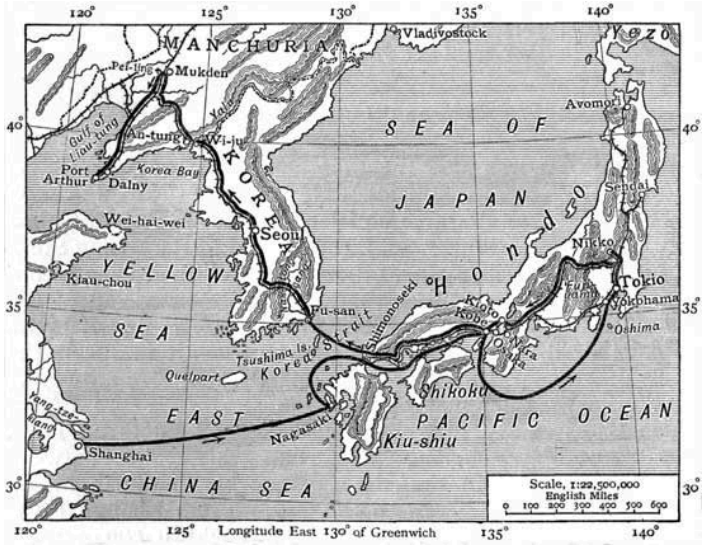
Marco Polo was also the first European to make Japan known in Western countries. He called it Chipangu, and stated that it was a large, rich island in the sea east of China. Accordingly the Chinese call it the "Land of the Rising Sun," and Nippon, as the Japanese themselves call their islands, has the same poetical signification, derived from the rising of the sun out of the waves of the Pacific Ocean. The flag of Japan displays a red sun on a white field, and when it flies from the masts of warships the sun is surrounded by sixteen red rays.

We leave Shanghai by the fine steamer *Tenyo Maru*, which is driven by turbines and makes 18 knots an hour. The *Tenyo Maru* belongs to a line which plies

between Hong-kong and San Francisco, calling at Shanghai, Japan, and the Sandwich Islands on the way. From Shanghai it is 470 miles over the Eastern Sea to Nagasaki, a considerable town situated on Kiu-shiu, the southernmost of the four islands of Japan proper.

As we near Japan the vessel crosses the great current called the "Kuro Shiwo," or the "Black Salt." It comes from the region immediately north of the equator, and flows northwards, washing the Japanese coast with its water, over 200 fathoms deep, and with a temperature of 72°, just as the Gulf Stream washes the east coast of Europe. Off Japan the sea is very deep, the lead sinking down to 4900 fathoms and more.

In Nagasaki the visitor is astonished at the great shipbuilding yards and docks; they are the largest in Asia, and the *Tenyo Maru*, as well as other ships as big, have been, for the most part at any rate, built here. It is hard to believe that it is only forty years since the Japanese took to European civilization and the inventions of Western lands. In many respects they have surpassed their teachers.



MAP SHOWING JOURNEY FROM SHANGHAI THROUGH JAPAN AND KOREA TO DALNY (pp. 184-202).

After a whole day in Nagasaki we steam out to sea again and make northwards round Kiu-shiu to the beautiful narrow strait at Shimonoseki which leads to the Inland Sea. Unfortunately it is pitch dark when we pass Admiral Togo's fleet. He has just been engaged in manoeuvres with eighty-five of Japan's two hundred modern warships. In sea-power Japan is the fifth nation of the world, and is only surpassed by England, Germany, America, and France. A large number of their warships were captured from Russia during the war, and afterwards refitted and re-christened with Japanese names. On a peace footing the land army of Japan contains 250,000 men and 11,000 officers. In time of war, when all the reservists and landwehr troops are called out, the strength amounts to a million and a half; 120,000

men yearly are called out for active service. The Japanese make any sacrifice when it is a question of the defence of their fatherland. To them affection for Nippon is a religion.

The area of Japan is about half as large again as that of the British Islands, and the population is, roughly, a quarter more. But if the recently acquired parts of the mainland, Korea and Kwan-tung, be included, 77,000 square miles must be added and the population increased to 65 millions.

Early on the morning of November 9 we pass through the strait of Shimonoseki into the Inland Sea, the Mediterranean of Japan, which lies between the islands Hondo, Kiu-shiu, and Shikoku. The scenery which unfolds itself on all sides is magnificent, and is constantly changing. Close around us, away over the open passages and in among the dark islands, is the clear, green, salt water, edged with foaming surf and dotted with picturesque fishing-boats under full sail; and as a frame to the gently heaving sea we have the innumerable islands—some large, some small, some wooded, others bare, but all sloping steeply to the shore, where the breakers thunder eternally. A pleasant breeze is felt on the promenade deck of the *Tenyo Maru*, the air is fresh and pure, the day bright and cheerful, and from sea and coast comes a curious mixed odour of salt brine and pine needles.

At dusk we cast anchor in the roadstead of Kobe, where the *Tenyo Maru* has to remain for twenty-four hours in order to take cargo on board. A launch takes us to the busy town, and we determine to spend the night on shore in a genuine Japanese hotel. At the entrance we are met by the landlord, in a garment

like a petticoat and a thin mantle with short hanging sleeves. Two small waiting-maids take off our shoes and put a pair of slippers on our feet. We go up a narrow wooden staircase and along a passage with a brightly polished wooden floor. Outside a sliding door we take off our slippers and enter in stocking feet. Cleanliness is the first rule in a Japanese house, and it would be thought inexcusable to enter a room in shoes which had lately been in the dust and dirt of the lanes and streets.

Our rooms are divided from one another by partitions of paper or the thinnest veneer, which can be partially drawn aside so that the rooms may be thrown into one. Here and there mottoes are inscribed on hanging shields, and we see that they are written in the same singular characters as are used in China. On one wall hangs a *kakemono*, or a long strip of paper with flowers painted in water-colours. On a small carved wooden stool below the painting stands a dwarf tree scarcely two feet in height. It is a cherry-tree which has been prevented from growing to its full size, but it is a real, living tree, perhaps twenty years old, and exactly like an ordinary cherry-tree, only so small that it might have come from Lilliput.

The floor is laid with mats of rice straw with black borders. Each mat is 6 feet long and 3 wide, and when a house is built the areas of the rooms are always calculated in a certain number of mats; thus a room of six mats is spoken of, or one of eight mats. Not infrequently the rooms are so small that three or even two mats will cover the floor.

We take our seats crossed-legged or on our heels on small, square, down cushions, the only furniture to

be seen. A young Japanese maiden, also in stocking feet, enters and places a stove in the middle of our circle. There is no fireplace. This stove is shaped like a flower-pot, made of thick metal, and is filled with fine white ashes. The young woman builds the ashes up into a cone like the summit of Fujiyama and lays fresh glowing charcoal against it. Instead of tongs she uses a pair of small iron rods.

Bedsteads are not used in Japan, and the bedding, which consists of thick padded quilts of rustling silk, is simply spread out on the mats on the floor. All the service and attendance is performed by women. They are dressed in their becoming and tasteful national costume, the "kimono," a close-fitting coloured garment, cut out round the neck, a broad sash of cloth round the waist, and a large rosette like a cushion at the back. Their hair is jet black, smooth, and shiny, and is arranged in tresses that look as if they were carved in ebony. Japanese women are always clean, neat, and dainty, and it is vain to look for a speck of dust on a silken cuff. If they did not giggle sometimes, you might think that they were dolls of wax or china. They are treated like princesses with the greatest politeness and consideration, for such is the custom of the country. They do their work conscientiously, and are always cheerful, contented, and friendly.



PLATE XIX. A JAPANESE RICKSHA.

We sit down on our cushions for breakfast. The serving-girls bring in a small red-lacquered table, not larger or higher than a footstool. Every guest has his own table, and on each are five cups, bowls, and small dishes of porcelain and lacquer, all of them with lids like teapots. These contain raw fish and boiled fish in various forms, omelettes and macaroni, crab soup with asparagus in it, and many other strange viands. When we have partaken of the first five dishes, another table is brought in with fresh dishes; and if it is a great banquet, as many as four or five such tables may be placed before one before the dinner is over. We eat with two chopsticks of wood or ivory not larger than a penholder, drink pale, weak tea without sugar and cream, and a kind of weak rice spirit called *saké*. When a bowl of steaming rice cooked dry is brought in, it is a sign that the meal is ended.

The streets of Kobe are not paved. They are narrow roads, too narrow for the large, clumsy vehicles, which are, however, few in number, and are mostly used for the transport of goods. The people ride in "rickshas"—neat, smart, two-wheeled gigs drawn by a running bare-legged man with a mushroom-shaped hat on his head (Plate XIX.). The road westwards along the coast runs through a succession of animated and busy villages, past open tea-houses and small country shops, homely, decorated wooden dwellings, temples, fields, and gardens. Everything is small, neat, and well kept. Each peasant cultivates his own property with care and affection, and the harvest from innumerable small plots constitutes the wealth of Japan. It is impossible to drive fast along the narrow road, for we are always meeting waggons and two-wheeled carts, porters, and travellers.

At the "Beach of Dancing Girls" we stay a while under some old pine-trees. Here people bathe in summer, while the children play among the trees. But now in November it is cold rather than warm, and after a pleasant excursion we return to Kobe. On the way we look into a Shinto temple erected to the memory of a hero who six hundred years ago fell in a battle in the neighbourhood. In the temple court stands a large Russian cannon taken at Port Arthur, and also a part of the mast shot off the man-of-war *Mikasa*.

Buddhism was introduced into Japan in the sixth century A.D., and more than half the population of the country profess this religion. The old faith of Japan, however, is Shintoism, to which about one-third of the people still belong. The sun is worshipped as a principal god and the powers of nature are adored as divinities. From the solar deity

the imperial house derives its origin, and the Emperor is regarded with almost religious reverence. Respect is also paid to the memory of departed heroes, as in China. Of late Christianity has spread far and wide in Japan, and Christian churches are now numerous.

Fujiyama and Tokio

It is now November 11. During the night the *Tenyo Maru* has passed out from Kobe into the Pacific Ocean, and is now steering north-east at a good distance from the coast of Hondo. The sky is gloomy, and the desert of water around us is a monotonous steely-grey expanse in every direction.

The Mediterranean countries of Europe lie on the same parallel of latitude as Japan. But Japan lies in the domain of the monsoons or periodical winds, and when these blow in summer from the ocean, they bring rain with them, while the winter, when the wind comes from the opposite direction, is fairly dry. On the whole Japan is colder than the Mediterranean countries, but the difference in climate between the northern and southern parts is very great. On the northern island, Yezo, the winter lasts quite seven months.

At noon Fujiyama[17] is first seen towards the north-east. Nothing of the coast is visible, only the snowy summit of the mountain floating white above the sea. Our course takes us straight towards it, and the imposing mountain becomes more distinct every quarter of an hour. Now also the coast comes in sight as a dark line, but only the summit of the mountain is visible, a singularly regular flat cone. The top looks as if it were cut off; that is the crater ring, for

Fujiyama is a volcano, though it has been quiescent for the past two centuries.

The snowfields in the gullies stand out more and more clearly, but still only the summit is visible, floating as it were free above the earth, a vision among the clouds. An hour later the whole contour comes into view and becomes sharper and sharper; and when we anchor off the shore the peak of Fujiyama rises right above us.

Fujiyama is the highest mountain in Japan, and the crater ring of the slumbering volcano is 12,395 feet above the surface of the Pacific Ocean. Fujiyama is a holy mountain; the path up it is lined with small temples and shrines, and many pilgrims ascend to the top in summer when the snow has melted away. It is the pride of Japan and the grandest object of natural beauty the country possesses (Plate XX.). It would be vain to try to enumerate all the objects on which the cone of Fujiyama has been represented from immemorial times. It is always the same mountain with the truncated top—in silver and gold on the famous lacquered boxes, and on the rare choice silver and bronze caskets, on the valuable vases in cloisonne, on bowls, plaques, and dishes, on screens, parasols, everything.



PLATE XX. FUJIYAMA.

Painters also take a delight in devising various foregrounds to the white cone. I once saw a book of a hundred pictures of Fujiyama, each with a new foreground. Now the holy mountain was seen between the boughs of Japanese cedars, now between the tall trunks of trees, and again beneath their crowns. Once more it appeared above a foaming waterfall, or over a quiet lake, where the peak was reflected in the water; or above a swinging bridge, a group of playing children, or between the masts of fishing-boats. It peeped out through a temple gate or at the end of one of the streets of Tokio, between the ripening ears of a rice-field or the raised parasols of dancing girls.

Thus Fujiyama has become the symbol of everything that the name Nippon implies, and its peak is the first point which catches the rays of the rising sun at the dawn of day.

Singularly cold and pale the holy mountain stands out against the dark blue sky as we steer out again to

sea in the moonlight night. It is our last night on the long sea voyage from Bombay. Close to starboard we have Oshima, the "great island," an active volcano with thin vapour floating above its flat summit; Japan has more than a hundred extinct and a score of still active volcanoes, and the country is also visited by frequent earthquakes. On an average 1200 are counted in the year, most of them, however, quite insignificant. Now and then, however, they are very destructive, carrying off thousands of victims, and it is on account of the earthquakes that the Japanese build their houses of wood and make them low.

In the early morning the *Tenyo Maru* glides into the large inlet on which Yokohama and Tokio are situated. Yokohama is an important commercial town, and is a port of call for a large number of steamboat lines from the four continents. Its population is about 400,000, of whom 1000 are Europeans—merchants, consuls, and missionaries.

A few miles south-west of Yokohama is the fishing-village of Kamakura, which was for many centuries the capital of the Shoguns. It has now little to show for its former greatness—at one time it was said to have over a million inhabitants—except the beautiful, colossal statue of Buddha, the Daibutsu (Plate XXI.). The figure, which is about 40 feet high, is cast in bronze, and dates from 1252.



PLATE XXI. THE GREAT BUDDHA AT KAMAKURA.

At the head of the bay lies Tokio, the capital, with over two million inhabitants. Here are many palaces

surrounded by fine parks, but the people live in small, neat, wooden houses, most of them with garden enclosures. The grounds of the Japanese of rank are small masterpieces of taste and excellence. It is a great relief to come out of the bustle and dust of the roads into these peaceful retreats, where small canals and brooks murmur among blocks of grey stone and where trees bend their crowns over arched bridges.

In Tokio the traveller can study both the old and the new Japan, There are museums of all kinds, picture galleries, schools, and a university organized on the European model. There is also a geological institution where very accurate geological maps are compiled of the whole country, and where in particular all the phenomena connected with volcanoes and earthquakes are investigated. In scientific inquiries the Japanese are on a par with Europeans. In the art of war they perhaps excel white peoples. In industrial undertakings they have appropriated all the inventions of our age, and in commerce they threaten to push their Western rivals out of Asia. Not many years ago, for example, some Japanese went to Sweden to study the manufacture of those safety matches which strike only on the box. Now they make safety matches themselves, and supply not only Japan but practically all the East. At Kobe one can often see a whole mountain of wooden boxes containing matches, waiting for shipment to China and Korea. So it is in all other branches of industry. The Japanese travel to Europe and study the construction of turbines, railway carriages, telephones, and soon they can dispense with Europe and produce all they want themselves.

The present Emperor of Japan, Mutsuhito,[18] came

to the throne in 1867. His reign is called *Mei-ji*, or the "Era of Enlightened Rule." During this period Japan has developed into a Great Power of the first rank, and it is in no small measure due to the wisdom and clear-sightedness of the Emperor that this great transformation has been accomplished.

Formerly the country was divided into many small principalities under the rule of *daimios* or feudal lords, who were often at war with one another, though they were all subject to the suzerainty of the Shogun, the nominal ruler of the whole country. Together with the *samurais* the *daimios* constituted the feudal nobility. It is curious to think that little more than forty years ago the Japanese fought with bows and arrows, sword and spear, and that the *samurais* went to battle in heavy harness with brassards and cuisses, helms and visors over the face. They were skilful archers, and wielded their great swords with both hands when they rushed on the foe.

Then the new period suddenly began. In 1872 universal service was introduced, and French and German officers were invited to organise the defensive force. Now Japan is so strong that no Great Power in the world cares to measure its strength with it.

Nikko, Nara, and Kioto

From Tokio we travel northwards by train in two hours to Nikko. There are several villages, and we put up in one of them. In front of the inn ripples a clear stream, spanned by two bridges, one of which is arched and furnished with a red parapet. Only the Emperor and his family may step on to this bridge;

other mortals must pass over another bridge near at hand. On the farther side we ascend a tremendously long avenue of grand cryptomerias rising straight up to the sky. It leads to a mausoleum erected to the memory of the first Shogun of the famous dynasty of Tokugawa. The first of them died in the year 1616.

This mausoleum is considered to be the most remarkable sight in Japan. It is not huge and massive, like the Buddhist temple in Kioto, the old capital of Japan. It is somewhat small, but both outside and inside it displays unusually exquisite artistic skill. Granite steps lead up to it. A *torii*, or portal, is artistically carved in stone, and another is so perfect that the architect feared the envy of the gods, and therefore placed one of the pillars upside down. We see carved in wood three apes, one holding his hands before his eyes, another over his ears, and the third over his mouth. That means that they will neither see, hear, nor speak anything evil. A pagoda rises in five blood-red storeys. At all the projections of the roof hang round bells, which sound melodiously to the movement of the wind. In the interior of the temple the sightseer is lost in dark passages dimly illuminated by oil lamps carried by the priests. The walls are all covered with the finest paintings in gold and lacquer. A moss-grown stone staircase leads down to the tomb where the Shogun sleeps.

Nara is situated immediately to the south of Kioto. Here are many famous temples, pagodas, and *torii*, and here also is the largest image of Buddha in Japan, twelve hundred years old. The finest thing of all, however, is the temple park of Nara, where silence and peace reign in a grove of tall cryptomerias. Along the walks are several rows of

stone lamps placed on high pedestals of stone. They stand close together and may number a thousand. Each of these lamps is a gift of some wealthy man to the temple. On great festivals oil lamps are placed in them. Hundreds of roedeer live in the park of Nara. They are as tame as lambs, and wherever you go they come skipping up with easy, lively jumps. Barley cakes for them to eat are sold along the paths of the park, and you buy a whole basket of these. In a minute you are surrounded by roedeer, stretching out their delicate, pretty heads and gazing at the basket with their lovely brown eyes. Here a wonderful air of peace and happiness prevails. The steps of roedeer and pilgrims are heard on the sand of the paths, but otherwise there is complete silence and quiet. The feeling reminds one of that which is experienced at the Taj Mahal.

All Japan is like a museum. You can travel about for years and daily find new gems of natural beauty and of the most perfect art. Everything seems so small and delicate. Even the people are small. The roads are narrow, and are chiefly used by rickshas and foot passengers. The houses are dolls' closets. The railways are of narrow gauge, and the carriages like our tramcars. But if you wish to see something large you can visit the Buddhist temple in Kioto. There we are received with boundless hospitality by the high priest, Count Otani, who leads us round and shows us the huge halls where Buddha sits dreaming, and his own palace, which is one of the most richly and expensively adorned in all Japan.

If you wish to see something else which does not exactly belong to the small things of Japan you should visit a temple in Osaka, the chief manufacturing town of Japan. There hangs a bell

which is 25 feet high and weighs 220 tons. In a frame beside the bell is suspended a beam, a regular battering-ram, which is set in motion up and down when the bell is sounded. And when the bell emits its heavy, deafening ring it sounds like thunder.

Kioto is much handsomer than Tokio, for it has been less affected by the influence of Western lands, and lies amidst hills and gardens. Kioto is the genuine old Japan with attractive bazaars and bright streets. Shall we look into a couple of shops?

Here is an art-dealer's. We enter from the street straight into a large room full of interesting things, but the dealer takes us into quite a small room, where he invites us to sit at a table. And now he brings out one costly article after another. First he shows us some gold lacquered boxes, on which are depicted trees and houses and the sun in gold, and golden boats sailing over water. One tiny box, containing several compartments and drawers, and covered all over with the finest gold inlaying, costs only three thousand *yen*, or about three hundred pounds. Then he shows us an old man in ivory lying on a carpet of ivory and reading a book, while a small boy in ivory has climbed on to his back. From a whole elephant tusk a number of small elephants have been carved, becoming smaller towards the point of the tusk, but all cut out in the same piece. You are tired of looking at them, they are so many, and they are all executed with such exact faithfulness to nature that you would hardly be surprised if they began to move.

Then he sets on the table a dozen metal boxes exquisitely adorned with coloured lacquer. On the lid of a silver box an adventure of a monkey is

represented in raised work. Pursued by a snake, the monkey has taken refuge in a cranny beneath a projecting rock. The snake sits on the top. He cannot see the monkey, but he catches sight of his reflection in the water below the stone. The monkey, too, sees the image of the snake, and each is now waiting for the other.

Now the shopman comes with two tortoises in bronze. The Japanese are experts in metal-work, and there is almost life and movement in these creatures. Now he throws on to the table a snake three feet long. It is composed of numberless small movable rings of iron fastened together, and looks marvellously life-like. Just at the door stands a heavy copper bowl on a lacquered tripod, a gong that sounds like a temple bell when its edge is struck with a skin-covered stick. It is beaten out of a single piece, not cast, and therefore it has such a wonderful vibrating and long-continued ring.

Let us also go into one of the famous large silk shops. Shining white silk with white embroidered chrysanthemum flowers on it—women's kimonos with clusters of blue flowers on the sleeves and skirt—landscapes, fishing-boats, ducks and pigeons, monkeys and tigers, all painted or embroidered on silk—herons and cranes in thick raised needlework on screens in black frames—everything is good and tasteful.

Among the most exquisite, however, are the cloths of cut velvet. This is a wonderful art not found in any other country than Japan. The finest white silken threads are tightly woven over straight copper wires laid close together, making a white cloth of perhaps ten feet square, interwoven with copper wires. An

artist paints in bright colours on the cloth a landscape, a rushing brook among red maples, a bridge, a mill-wheel, and a hut on the bank. When he has done, he cuts with a sharp knife along each of the numberless copper wires. Every time he cuts, the point of the knife follows one of the copper wires, and he cuts only over the coloured parts. The fine silk threads are thus severed and their ends stand up like a brush. Then the copper wires are drawn out, and there stand the red trees, hut, and bridge in close velvet on a foundation of silk.

In all kinds of handicrafts and mechanical work the Japanese are experts. A workman will sit with inexhaustible patience and diligence for days, and even months and years, executing in ivory a boy carrying a fruit basket on his back. He strikes and cuts with his small hammers and knives, his chisels and files, and gives himself no rest until the boy is finished. Perhaps it may cost him a year's work, but the price is so high that all his expenses for the year are covered when the boy is sold to an art-dealer.

FOOTNOTES:

[17] "Fuji," without equal; "yama," mountain.

[18] The Emperor Mutsuhito died on July 30, 1912, and was succeeded by his eldest son, Yoshihito, who was born in 1879.

XIV

BACK TO EUROPE

Korea

Our journey eastwards ends with Japan, and we turn westwards on our way back to Europe. The portion of the mainland of Asia which lies nearest to Japan is Korea, and the passage across the straits from Shimonoseki to Fu-san takes only about ten hours. The steamer sails in the morning, and late in the afternoon we see to larboard the Tsushima Islands rising out of the water like huge dolphins. Our course takes us almost over the exact place where, on May 27, 1905, Admiral Togo annihilated the squadron of the Russian Admiral Rozhdestvenski.

The Russian fleet had sailed round Asia, and steamed up east of Formosa to the Strait of Korea. The Admiral hoped to be able to reach Vladivostock, on the Russian side of the Sea of Japan, without being attacked, and on May 27 his fleet was approaching the Tsushima Islands. But Admiral Togo, with the Japanese fleet, lay waiting off the southern coast of Korea. He had divided the straits into squares on a map, and his scouting boats were constantly on the look-out. They could always communicate with Togo's flagship by wireless telegraphy. And now currents passing through the air announced that the Russian fleet was in sight, and was in the square numbered 203. This number was considered a good omen by the Japanese, for the fate of the fortress of Port Arthur was sealed when the Japanese took a fort called "203-metre Hill" (Port Arthur, which lies on the coast of the Chinese mainland, had fallen into the hands of the Japanese on January 1, 1905).

When the news came, Togo knew what to do. With his large ships and sixty torpedo boats he fell upon the Russian fleet, and the battle was decided within an hour. The Russian Admiral's flagship sank just on the spot where we are now on the way to Fu-san. The Admiral himself was rescued, sorely wounded, by the Japanese. His fleet was dispersed, and its various divisions were pursued, sunk, or captured. The Russians lost thirty-four ships and ten thousand men. It was a bloody encounter which took place on these usually so peaceful waters. The Japanese became masters of the sea, and could, unhindered, transport troops, provisions, and war material over to the mainland, where the war with Russia still raged in Manchuria.

From Fu-san, which for two hundred years has been a Japanese town, the railway takes us northwards through the Korean peninsula. We ascend the beautiful valley of the Nak-tong-gang River. Side valleys opening here and there afford interesting views, and between them dark hills descend steeply to the river, which often spreads out and flows so gently that the surface of the water forms a smooth mirror. The sky is clear and turquoise-blue in colour, and spans its vault over greyish-brown bare mountains. Where the ground on the valley bottom is level it is occupied by rice and wheat fields. Every now and then we pass a busy village of grey thatched houses, where groups of women and children in coloured garments are seen outside the cabins. The men wear long white coats, and on the head a thin black hat in the form of a stunted cone with flat brim. Seldom are the eyes caught by a clump of trees; as a rule the country is bare. Innumerable small mounds are often seen on the slopes; these are Korean graves.

The signs of Japan's peaceful conquest of Korea are everywhere apparent. Japanese guards, policemen, soldiers, and officials are seen at the stations; the country now contains more than 200,000 Japanese. Settlers from Japan, however, take up their residence only for a time in the foreign country. For example, a landowner in Japan will sell half his property there, and with the proceeds buy land in Korea three or four times as large as all his estate in the home country, and in fertility at least as good. There he farms for some years, and then returns home with the profits he has earned. Numbers of Japanese fishermen also come yearly to the coasts of Korea with their boats, and return home to Japan with their catch. Thus Korea is deluged with Japanese of all kinds. The army is Japanese, Japanese fortresses are erected along the northern frontier, the government and officials are Japanese, and soon Korea will become simply a part of the Land of the Rising Sun.

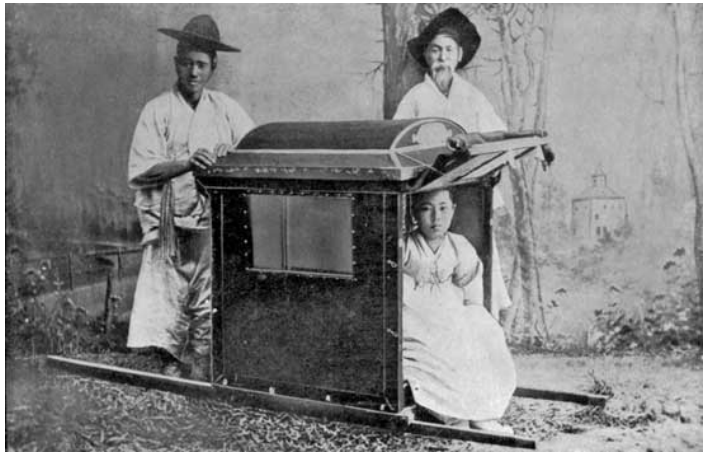


PLATE XXII. A SEDAN-CHAIR IN SEOUL.

We cross the range of mountains which runs like a backbone all through Korea from north to south, and late in the evening we come to the capital, Seoul, which has 280,000 inhabitants, a fifth of whom are Japanese. The town is confined in a valley between bare cliffs, and from the heights all that can be seen is confusion of grey and white houses with gabled roofs covered with grey tiles. In the Japanese quarter life goes on exactly as in Japan; rows of coloured paper lanterns hang now, at night, before the open shops, and trade is brisk and lively. In the Korean quarters the lanes are narrow and dismal, but the principal streets are wider, with tramcars rattling amidst the varied Asiatic scenes. Here are sedan chairs (Plate XXII.), caravans of big oxen laden with firewood, heavy carts with goods, men carrying unusually heavy loads on a framework of wooden ribs on their backs, women sailing past in white garments and a veil over their smooth-plaited hair. A row of grown men and boys pass through the streets carrying boards with Korean inscriptions in red and white: those are advertisements. Before them marches a drum and flute band, filling the streets with a hideous noise.

Korea has 13 million inhabitants, and in area is just about as large as Great Britain. It is now subject to Japan, and is administered by a Japanese Resident-General, whose headquarters are at Seoul.

Manchuria

From Seoul we travelled northwards by rail to Wi-ju, a small place on the left bank of the Yalu River, which forms the boundary between Korea and Manchuria. Opposite, on the right or north bank of

the Yalu, stands An-tung, a town with 5000 Japanese and 40,000 Chinese inhabitants. The river had just begun to freeze over, and the ice was still so thin that it could be seen bending in great waves under the weight of our sledge, which a Chinaman pushed along at a great speed with a long iron-shod pole. However, we reached the other side in safety.

From An-tung to Mukden is only 200 miles, but the journey takes two whole days. The little narrow-gauge railway was laid down during the Russo-Japanese War to enable the Japanese to transport provisions and material to the front. The small track goes up and down over the mountains in the most capricious curves and loops, and the train seldom accomplishes the whole journey without a mishap. The Japanese Consul at An-tung, who had made the journey eight times, had been in four railway accidents, and two days previously the train had rolled down a declivity with a general and his staff.

The view through the carriage windows is magnificent. This part of Manchuria is mountainous, but in the depths of the valleys lie farms and fields. Manchus in long blue coats and black vests wind along the road tracks, some on foot, others mounted, while others again drive two-wheeled carts drawn by a horse and a pair of mules. All the watercourses are frozen, but there is no snow. It is sunny, clear, and calm in these valleys, where the thunder of battle has long died away among the mountains.

Half-way to Mukden we halt for the night, and start next morning before daybreak in biting cold. Some Chinese merchants join the train, attended by servants bearing paper lanterns. A small party of Japanese soldiers also is here. They are in thick

yellow coats with high collars, *bashliks*, red shoulder knots, caps with a red border, leather-covered felt boots, and are armed with cutlasses and rifles. They are sinewy and sturdy fellows, neat and clean, and always seem cheerful.

At length the Christmas sun rises glowing red, and the ice flowers vanish from the windows. Here, where the winter cold is so piercing, it is oppressively hot in summer. Our little toy train crosses a river several times on fragile bridges of beams, which seem as though they might at any moment collapse like a house of cards. Small strips of tilled land, creaking ox-carts on the deeply rutted roads, tiny Buddhist oratories, primitive stations with long rows of trucks of fuel, a country house or two—that is all that is to be seen the whole day, until late in the evening we arrive at Mukden.

Manchuria is one of the dependencies of China. The Russians constructed a railway through the country to the fortress of Port Arthur, but, as is well known, the Japanese succeeded in capturing the fortress during the war. By the peace of Portsmouth,[19] concluded in September 1905, the Japanese acquired Port Arthur, the adjacent commercial port of Dalny, with the surrounding district, the southern half of the large island Sakhalin, the supremacy over Korea, together with the South Manchurian Railway—so that the Russians had unknowingly built this railway for the benefit of their enemies.

Round Mukden was fought the greatest battle of the whole Russo-Japanese War. The contest lasted twenty days; more than 850,000 men and 2500 guns were engaged, and 120,000 were left dead on the field. On March 1, 1905, the whole Japanese army

began to move, and formed at last a ring round the Russians and Mukden. Thus the Japanese became for the time being the masters of Manchuria, but on the conclusion of peace the country was handed back to China.

The life in the singular streets of Mukden is varied and attractive. The Manchus seem a vigorous and self-confident people; they are taller than the Chinese, but wear Chinese dress with fur caps on their heads. The women seldom appear out of doors; they wear their hair gathered up in a high knot on the crown, and, in contrast to the Chinese women, do not deform their feet. Among the swarming crowds one sees Chinamen, merchants, officers, and soldiers in semi-European fur-lined uniforms, policemen in smart costumes with bright buttons, Japanese, Mongols, and sometimes a European. Tramcars drawn by horses jingle through the broader streets. The houses are fine and solidly built, with carved dragons and painted sculpture, paper lanterns and advertisements, and a confusion of black Chinese characters on vertically hanging signs. At the four points of the compass there are great town gates in the noble Chinese architecture, but outside stretches a bare and dreary plain full of grave mounds.

In Pe-ling, or "Northern Tomb," rests the first Chinese Emperor of the Manchu dynasty, and his son, the great Kang Hi, who reigned over the Middle Kingdom for sixty-one years. Pe-ling consists of several temple-like buildings. The visitor first enters a hall containing an enormous tortoise of stone, which supports a stone tablet inscribed with an epitaph extolling the deceased Emperor. At the farthest extremity of the walled park is the tomb itself, a huge mass of stone with a curved roof. In a

pavilion just in front of this building the Emperor of China is wont to perform his devotions when he visits the graves of his fathers. Solemn peace reigns in the park, and under the pine-trees stone elephants, horses, and camels gaze solemnly at one another.

From Mukden Port Arthur is an easy eight hours' railway journey south-westwards; and it is only an hour and a half more to Dalny, which in Japanese hands has grown to a large and important commercial town.

The Trans-Siberian Railway

On December 28, 1908, we stepped into the train in Dalny, and commenced a railway journey which lasted without a break for eleven days.

First we have to go back to Mukden, and then a somewhat shorter journey to the last Japanese station. At the next the stationmaster is a Russian, and Russian guards replace the Japanese. In the afternoon the train draws up at Kharbin on the Sungari River, a tributary of the great Amur. It was towards Kharbin that the Russians slowly retired after their defeat, and on this very platform Prince Ito, the first Japanese Resident-General of Korea, was murdered barely a year later.

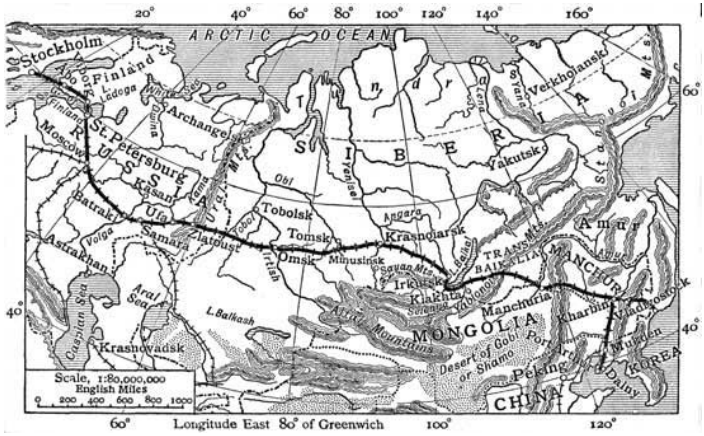
At Kharbin we have to wait two hours for the international express, which runs twice a week from Vladivostock to Moscow.

Next morning we stay for two hours at a station in Manchuria, on the boundary between Manchuria and Siberia, between China and Russia, and here our luggage is examined by the Russian customs officers. We put our watches back one and a half hours—that

is the difference of time between Kharbin and Irkutsk. We are now travelling from east to west, in the same direction as the sun. If the train went as fast as the sun we should enjoy perpetual day; but the train lags behind, and we only gain an hour in the twenty-four.

The Trans-Siberian railway is the longest in the world, the distance from Dalny to Moscow being 5400 miles. The railway was completed just in time for the war, but as it had only one track, it taxed all the energy of the Russians to transport troops and war material to the battlefields in Manchuria. A second track is now being laid.

By using this railway a traveller can go from London to Shanghai in fourteen days, the route being to Dover, across the Channel to Calais, by rail to Moscow, from Moscow to Vladivostock by the Trans-Siberian railway, and from Vladivostock to Shanghai by sea. The sea voyage from London by the P. and O. —calling at Gibraltar, Marseilles, Port Said, Aden, Colombo, Penang, Singapore, and Hong Kong—takes about six weeks, which can be reduced to a month by travelling by train across Europe to Brindisi (at the south-eastern corner of Italy), and thence by steamer to Port Said, where the liner is joined. There is still a third route, across the Atlantic to the United States or Canada, by rail to San Francisco or Vancouver, and then by steamer to Shanghai *via* Japan. This journey can also be accomplished in a month.



THE TRANS-SIBERIAN RAILWAY.

On the last day of the year we pass through the Yablonoi Mountains and enter the region called Transbaikalia, because it lies on the farther, that is, the eastern, side of Lake Baikal. Here dwell Buriats, a Mongolian people—in winter in wooden huts surrounded by enclosures for domestic animals, in summer in tents. When we awoke on the morning of New Year's Day the train was passing along the southern shore of Lake Baikal, and one of the most enchanting scenes in the world was displayed to the eyes of the passengers. On the eastern shore the mountains stood clearly defined in the pure morning air, while the ranges to the west were lit up by the clear sunshine. Here and there the slopes were covered with northern pine and fir-trees. The line runs all the way along the lake shore, sometimes only a couple of yards from the water. This part of the Trans-Siberian railway was the most difficult and costly to make, and the last to be completed. During its construction traffic between the extremities of the line was provided for by great ferry-boats across the

lake. The line winds in and out, following all the promontories and bays of the lake, and the train rolls on through narrow galleries where columns of rock are left to support a whole roof of mountain. Sometimes we run along a ledge blasted out of the side of the mountain, above a precipitous slope which falls headlong to the lake. We rush through an endless succession of tunnels, and on emerging from each are surprised by a new view of the mountainous shore.

Baikal, or the "Rich Lake," is the third inland sea of Asia, only the Caspian and the Sea of Aral being larger. Its height above sea-level is 1560 feet; the water is light-green in colour, sweet, and crystal clear, and abounds in fish, among them five species of salmon. There is also a kind of seal, and in general many of the animal forms of Baikal are allied to those of the salt sea. Baikal is the deepest lake in the world, soundings having been taken down to 5618 feet. Steamers cross the lake in various directions, and in winter sleighs are driven over the ice from shore to shore. At the beginning of January the whole of the deep lake is so cooled down that ice begins to form, and the lake is usually frozen over to the middle of April.

We stop an hour at Irkutsk to change trains. Irkutsk is the largest town in Siberia, and has 100,000 inhabitants; it stands on the bank of the river Angara, which flows out of Lake Baikal, and thus forms the outlet of all the rivers and streams which empty themselves into the lake, the largest of which is the Selenga. Although the Angara is five times as large as the Yenisei, it is called a tributary of the latter. The Yenisei rises in Chinese territory, and, running northwards right through Siberia, falls into

the Arctic Ocean. It receives a large number of affluents, most of them from the east. Its banks are clothed with forest, and from Minusinsk downwards the river is navigable.

The Lena, the great river which passes through eastern Siberia north-east of Baikal, is not much smaller than the Yenisei. There stands the town of Yakutsk, where the temperature falls in winter down to-80°, and rises in summer to 95°. North of Yakutsk, on the river Yana, lies Verkhoiansk, the coldest place in the world, the centre of low temperature or pole of cold.

In area Siberia is larger than the whole of Europe, but the population in this immense country is no greater than that of Greater London, *i.e.* about seven millions. Of these 60 per cent are Russians, 20 per cent Kirghizes, and the remainder is made up of Buriats, Yakuts, Tunguses, Manchus, Samoyeds, Ostiaks, Tatars, Chukchis, etc. No small part of the Russian population consists of convicts transported to Siberia, whose hard lot is to work under strict supervision in the gold mines. Their number is estimated at 150,000. Before the railway was made they had to travel tremendous distances on foot. They marched ten miles a day in rain and sunshine, storm and snow, through the terribly cold and gloomy Siberia. Before and behind them rode Cossacks, who would not let them rest as they dragged their chains through the mud and mire of the road. Frequently women and children followed of their own free will to share their husbands' and fathers' fate during their forced labour in the mines. Now there is a great improvement. The labour, indeed, is just as hard, but the journey out is less trying. The unfortunate people are now forwarded in

special prison vans with gratings for windows. They are like travelling cells, and can often be seen on side tracks at a station.

In the neighbourhood of the Lena River dwell Yakuts of the Turkish-Tatar race. They number only 230,000 men, are nominally Christians, and pursue agriculture and trade. East of the Yenisei are the Tunguses, a small people divided into "settled," "horse," "reindeer," and "dog" Tunguses, according to the domestic animal of most importance to their mode of life. In western Siberia, the governments of Tobolsk and Tomsk, live Ostiaks, a small Finnish tribe of 26,000 persons, who are poor fisher folk, hunters and nomads with reindeer. This tribe is rapidly dying out. North of them, in the northern parts of western Siberia and in north-eastern Europe, live the Samoyeds, of Ural-Altai origin, who are still fewer in number than the preceding tribe, and live by reindeer-breeding and fishing.

All these Siberian tribes and many others are Shamanists, and are so called after their priests, Shamans. They believe in an intimate connection between living men and their long-deceased forefathers. They entertain a great dread of the dead, and do everything they can to exorcise and appease their souls, bringing them offerings. All this business is attended to with much black magic and witchcraft by the Shamans, who are also doctors. When any one dies the spirit of the dead must be driven out of the tent, so the Shaman is summoned. He comes decked out in a costly and curious dress, and with religious enthusiasm performs a dance which soon degenerates into a kind of ecstasy. He throws himself about, reels and groans, and is beside himself. And when he has carried on long enough he catches hold

of a magic drum, whose soothing sounds calm him and bring him back to his senses. When he has finished his performance the soul is gone!

Over white plains, over hills, and through valleys, the train bears us on farther north-westwards through the government of Irkutsk. At Krasnoiarsk we cross the Yenisei by a fine bridge nearly two-thirds of a mile long. In summer vessels can ascend as far as Minusinsk, in a district of southern Siberia, rich in gold and iron and productive soil. In general Siberia is a rich country. Gold, silver, and copper, lead, graphite, and coal occur, besides many other valuable minerals and stones in the mountains. The country has also good prospects of future development owing to its remarkably excellent agricultural land. Most of this is situated near the railway, and all Siberia is intersected by a net of waterways. From one of the tributaries of the Obi steamers can pass by canal to the Yenisei, and thence on to the Lena. Omsk, the third town of Siberia, with 89,000 inhabitants, is the centre of this water system. More than 6000 miles of river can be navigated by large steamers, and nearly 30,000 by smaller boats. In western Siberia, around Tomsk and Omsk, the agricultural produce increases year by year, and the time will certainly come when these regions will support a population many times as large as at present, and export large quantities of corn in addition. This is the only thing which will make this enormously long railway pay, for it cost somewhere about £11,000,000 to build.

We have passed Tomsk and crossed the Obi by a fine massive bridge of stone and iron. The Obi is the largest river of Asia. In length it is equal to the Yenisei and Blue River, but its drainage basin is

larger than that of either of the others. Where the great affluent, the Irtish, runs in from the west, the Obi has a breadth of nearly two miles, and at its mouth, in the Gulf of Obi on the Arctic Ocean, the breadth has increased to twelve miles. The Irtish also receives from the west a large tributary, the Tobol, and at the confluence stands the town of Tobolsk.

One day passes after another, and one night after another rises up blue and cold from the east. We have left every mountain and hill behind us, and the boundless plains, like a frozen sea, lie buried under deep snow. Sometimes we travel for a whole hour without seeing a farm or village. Only occasionally do we see to the north a small patch of *taiga*, or the Siberian coniferous forest, silent and dark. A clump of birch-trees is a rare sight. The country is open, flat, monotonous, and dead-white as far as the horizon.

Thus we travel on by degrees through Siberia, this immense country bounded on the south by the Altai, Sayan, the Yablonoi and Stanovoi Mountains, and on the north by the Arctic Ocean. Huge areas of northern Siberia are occupied by *tundras*—moss-grown, marshy steppes, with little animal life, frozen hard as stone in winter and thawed during the short summer into dangerous swamps.

In the frozen ground of northern Siberia, and particularly in old flood plains, have been found complete specimens of the mammoth. This animal is an extinct species of elephant, which, during the diluvial period, was distributed over all northern Asia, Europe, and North America. The mammoth was larger than the elephant of the present day, had tusks as much as 13 feet long, a thick fur suitable for a

cold climate, and quite a luxuriant mane on the back of the head and neck. That prehistoric man was a contemporary of the mammoth is proved by ancient rude drawings of this animal.

Larches, pine and spruce, birch and willow, compose the forests of Siberia. The larch manages to exist even round the pole of cold. The Polar bear, the Arctic fox, the glutton, the lemming, the snow-hare, and the reindeer are the animals in the cold north. In the central parts of the country are to be found red deer, roedeer, wild swine, beaver, wolf, and lynx. Far away to the east, on the great Amur River, which is the boundary between the Amur province and Manchuria, as well as in the coast province of Ussuri, on the coast of the Sea of Japan, occur tigers and panthers. The most valuable animals, the furs of which constitute one of the resources of Siberia, are the sable, the ermine, and the grey squirrel. The south-eastern parts of this great country are a transitional region to the steppes of central Asia, and there are to be found antelopes, gazelles, and wild asses.

At length, on January 5, we are up in the Ural Mountains, and the line winds among hills and valleys. Near the station of Zlatoust stands a granite column to mark the boundary between Asia and Europe.

The Volga and Moscow

From the boundary between Europe and Asia the train takes us onwards past Ufa to Samara. The hills of the Urals become lower and the country flattens out again. Snow lies everywhere in a continuous sheet, and peasants are seen on the roads with

sledges laden with hay, fuel, or provisions. At Batraki we pass over the Volga by a bridge nearly a mile long. The Volga is the largest river in Europe; it is 2300 miles long, and has its source in the Valdai hills (between St. Petersburg and Moscow) at a height of only 750 feet above sea-level. It flows, therefore, through most of Russia in Europe, traversing twenty governments. The right bank is high and steep, the left flat; and at its mouth in the Caspian Sea it forms a very extensive delta. The Volga is navigable almost throughout its length, and has also forty navigable tributaries. The river is frozen over for about five months in the year, and when the ice breaks up in spring with thundering cracks it often causes great damage along the banks. Crowds of vessels, boats, and rafts pass up and down the sluggish stream, as well as passenger steamers built after the pattern of the American river boats. By the Volga and its canals one can travel by steamer from the Baltic to the Caspian Sea, and from the Caspian Sea by the Volga into the Dwina and out to the White Sea. The Volga is not only an important highway for goods and passengers, but also an inexhaustible fish preserve; indeed the sturgeon and sterlet fisheries constitute its greatest wealth.



PLATE XXIII. THE KREMLIN, MOSCOW.

When the train has rattled heavily and slowly over the Volga, it proceeds west-north-west into the very heart of holy Russia, and late on January 7, 1909, we roll into the station of Moscow, the old capital of Russia.

Moscow is a type of the old unadulterated Russia, a home of the simple, honest manners and customs of olden days, of faith and honour, of a child-like, pure-hearted belief in the religion of the country, the Catholic Greek Church. In its crooked, winding, badly-paved streets swarm Tatars, Persians, and Caucasians, among Slav citizens and countrymen, those inexterminable Russian peasants who suffer and toil like slaves, look too deep into the *vodka*[20] cup on Saturday, yet are always contented, good-tempered, and jovial.

The town stands on both sides of the small Moskva River, which falls into the Oka, a tributary of the Volga, and is inhabited by more than a million souls.

The Kremlin is the oldest part, and the heart of Moscow (Plate XXIII.). Its walls were erected at the end of the fifteenth century; they are 60 feet high, crenellated, and provided with eighteen towers and five gates. Within this irregular pentagon, a mile and a quarter in circumference, are churches, palaces, museums, and other public buildings. There stands the bell tower of Ivan Veliki, 270 feet high, with five storeys. From the uppermost you can command the whole horizon, with Moscow beneath your feet, the streets diverging in every direction from the Kremlin like the spokes of a wheel, and crossed again by circular roads. Between the streets lie conglomerations of heavy stone houses, and from this sea of buildings emerge bulb-shaped cupolas with green roofs surmounted by golden Greek crosses. Large barracks, hospitals, palaces, and public buildings crop up here and there. Right through the town winds the Moskva in the figure of an S, and the walls of the Kremlin with their towers are reflected in the water.

In the tower of Ivan Veliki hang thirty-three bells of various sizes. At its foot stands the fallen "Tsar" bell, which weighs 197 tons and is 65 feet in circumference. In its fall a piece was broken out of the side, and it is therefore useless as a bell, but it is set up on a platform as an ornament.

Within the walls of the Kremlin is also the Church of the Ascension of the Virgin, which is crowned by a dome 138 feet high, with smaller cupolas at the four corners. Standing in the centre of the Kremlin, this church is the heart not only of Moscow but of all Russia, for here the Tsars are crowned, while the bells of Ivan Veliki peal over the city. The interior of the cathedral presents an indescribable effect. The

light from the narrow windows high up is very dim, and is further dulled by gilded banners with pictures of saints and crosses. The temple nave is crammed with religious objects, iconostases and icons, sacred portraits of solid gold with only the hands and faces coloured. Wax candles burn before them, from which the smoke rises up to the vaulted roof, floating about the banners in a greyish-blue mist.

To the orthodox Russians the Kremlin is almost a holy place. They make pilgrimages to its temples and cloisters with the same reverence as Tibetans to the sanctuaries of Buddha. "Moscow is surpassed only by the Kremlin, and the Kremlin only by heaven," they say.

Perhaps no year in the history of Moscow is so famous as the year 1812. Then the city was taken by Napoleon and the Grande Armée. The Russian army abandoned the city, and the citizens left their homes. Napoleon entered on September 14, and next day the city began to burn. The Russians had set fire to it themselves in several places. Three-fourths of the city lay in ashes when the French evacuated Moscow after an occupation of five weeks and the loss of 30,000 men. The remembrance of this dreadful time still survives among the populace.

St. Petersburg and Home

From Moscow an express train takes us in eleven hours to the capital of Peter the Great, St. Petersburg, at the mouth of the Neva, in the Gulf of Finland. Here we are in the midst of very different scenes from those in Moscow. Here is no longer genuine uncontaminated Russia, but Western civilisation, which has come and washed away the

Slavonic. The churches and monasteries indeed are built in the same style as in Moscow, and the eyes meet with the same types and costumes, and the same heavily laden waggons and carts rumble over the Neva bridges; but one feels and sees only too plainly that one is in Europe.

The Neva is forty miles long and a third of a mile broad, and comes from Lake Ladoga. It is spanned by four fine bridges, always crowded with carriages and foot passengers, and in summer numerous small steamboats ply up and down. In winter thick ice lies on the river during four months.

St. Petersburg has nearly two million inhabitants, which is rather more than a hundredth part of the population of the whole Russian empire. The appearance of the town shows that it is new, for the streets are straight and broad. The climate is very raw, damp, and disagreeable, and it rains or snows on 200 days in the year.

A walk through the streets of St. Petersburg shows the traveller much that is strange. Tiny chapels are found everywhere—in the middle of a bridge or at a street corner. They contain only a picture of a saint with candles burning before it. Many persons stop as they pass by, uncover their heads, fall on their knees, cross themselves and murmur a prayer, and then vanish among the crowd in the streets. It is also noticeable that this city is full of uniforms. Not only do the soldiers of the large garrison wear uniforms, but civil officials, schoolboys, students, and many others are dressed in special costumes with bright buttons of brass or silver. But what especially attracts the stranger's attention are the vehicles. Persons of the upper classes drive in open sleighs and cover

themselves with bearskins lined with blue, and are drawn by tall, dark, handsome trotters. Sometimes also a *troika*, or team of three horses abreast, is seen, one of the horses in the middle under the arch which keeps the shafts apart, while the other two, on either side, go at a gallop. The hackney sleighs are also common, so small that two persons can hardly find room to sit, and as there is no support or guard of any kind, they must cling to each other's waists in order not to be thrown off at sharp corners. These small sledges have no fixed stands, but they are drawn up in long rows outside hotels, banks, theatres, railway stations, and other much-frequented places, and may be found singly almost anywhere in the streets. The drivers are always merry and cheerful, and keep up a running conversation with their passenger or their horse, which they call "my little dove." All drive at the same reckless pace, as if they were running races through the streets.

St. Petersburg is rich in art collections and museums, picture-galleries, churches, and fine palaces. The finest building in the city, however, is the Isaac Cathedral, with its high gilded dome, surrounded by four similar but smaller gilded cupolas. The cross at the top is 330 feet above the ground, and the great dome is the first thing in St. Petersburg to be seen on coming by steamer from the Gulf of Finland. When the Cathedral was built, it cost more than two and three-quarter million pounds. It was finished fifty years ago, but has never been in really sound condition, and is always undergoing extensive repairs.

The last stage of our journey is now at hand. One evening we drive in a *troika*, with much ringing of sleigh bells, to the station of the Finland Railway, whence the train takes us through Viborg to Abo, the old capital of Finland. Here a steamer is waiting to take us over to Stockholm, which was the starting-point of our long journey.

FOOTNOTES:

[19] A seaport of New Hampshire, U.S.A.

[20] A Russian alcoholic liquor usually made from rye.

PART II

I

STOCKHOLM TO EGYPT

To London and Paris

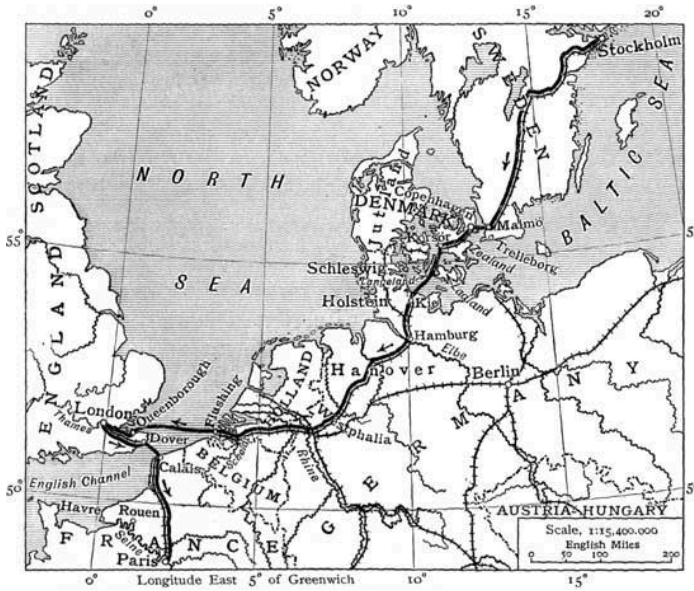
Again we set out from Stockholm in the evening by train, and the next morning we reach Malmö, a port on the west coast of Sweden, not many miles north of Trelleborg, from which we started on our journey eastwards across Asia. From Malmö a steamer soon takes us across the narrow sound to Copenhagen, the beautiful capital of Denmark, and then we take the train across the large, rich, and fertile island of Zealand. There farms are crowded close together among the tilled fields; there thriving cattle graze on the meadows, yielding Denmark a superfluity of milk and butter; there the productive soil spreads everywhere, leaving no room for unprofitable sandy downs and heaths, as on the west coast of Jutland. The Danes are a small people, but they make a brave struggle for existence. Their country is one of the smallest in Europe, but the first in utilising all its possibilities of opening profitable commerce with foreign lands. Much larger are its possessions in the Arctic Ocean, Greenland, and Iceland, but there the population is very scanty and the real masters of the islands are cold and ice.

At Korsör, on the Great Belt, we again go on board a steamer which in a few hours takes us between Langeland and Laaland to Kiel, the principal naval port of Germany. Here we are on soil which was formerly Danish, for it was only during her last unfortunate war that Denmark lost the two duchies of Schleswig and Holstein.

We travel by train from Kiel through fertile Holstein southwards to the free Hansa town of Hamburg on the Elbe, the greatest commercial emporium on the mainland of Europe, and, after London and New

York, the third in the world.

From Hamburg the train goes on through Hanover and Westphalia, across the majestic Rhine, through South Holland, not far north of the Belgian frontier, to the port of Flushing, which is situated on one of the islands in the delta of the Scheldt. Here another steamer is ready for us, and after a passage of a few hours we glide into the broad trumpet-shaped mouth of the Thames and land at Queenborough. There again we take a train which carries us through the thickly-peopled, well-cultivated country of Kent into the heart of London, the greatest city of the world.



MAP SHOWING JOURNEY FROM STOCKHOLM TO PARIS.

After a few days' stay in London we go on to Paris—by train to Dover, across the Channel at its narrowest

part in a swift turbine steamer, and again by rail from Calais to Paris, through one of the most fruitful districts of France, vying with the valleys of the Rhone and Garonne in fertility. In a little over seven hours after leaving London we arrive at the great city (Plate XXIV.) where the Seine, crossed by thirty bridges, describes a bend, afterwards continuing in the most capricious meanderings to Rouen and Havre.



PLATE XXIV. PARIS.
Looking eastwards from Notre Dame.

The first thing the stranger notices in Paris is the boulevards—broad, handsome streets, with alleys of leafy trees between rows of large palatial houses, theatres, cafés, and shops. The oldest, the boulevards proper, were formerly the fortifications of the town with towers and walls; "boulevard" is, then, the same word as the English "bulwark." Louis XIII., who enlarged and beautified Paris, had these bulwarks pulled down, and the first boulevards laid out on

their site. They are situated on the north side of the Seine, and form a continuous line under different names, Madeleine, des Capuchines, des Italiens, and Montmartre. This line of boulevards is one of the sights of Paris. In later times boulevards were also laid out where there had been no fortifications before. Under Louis XIV. and his successors Paris grew and increased in splendour and greatness; then it was the scene of the great Revolution and its horrors; then under Napoleon it became the heart of the mightiest empire of that time. With the fall of Napoleon Paris was twice entered by the forces of the Allies, and in 1871 it was besieged and captured by the Prussians. Since then Paris has been spared from disastrous misfortunes, and is, as it has been for many centuries, the gayest and most animated city in Europe.

Let us take a rapid walk through the town, starting at the Place de la Bastille, on the north bank of the Seine, where formerly stood the fortress and prison of the Bastille. This prison was stormed and destroyed at the commencement of the Great Revolution, on July 14, 1789, and since that year July 14 has been the chief national festival-day. In the middle of the square stands the July Column, and from its summit a wonderful view of Paris can be obtained. We now follow the Rue de Rivoli, the largest and handsomest street in Paris. On the left hand is the Hôtel de Ville, a fine public building, where the city authorities meet, where brilliant entertainments are given, and where the galleries are adorned with canvases of famous masters.

Farther along, on the same side, is the largest public building of the city, the palace of the Louvre. Like the British Museum, it would require months and

years to see properly. Here are stored colossal collections, not only of objects of art and relics from great ancient kingdoms in Asia and Europe, but also of the finest works of European sculptors and painters of all periods.

We walk on north-westwards through the luxuriant gardens of the Tuileries, and stop a moment in the Place de la Concorde to enjoy the charming views presented on all sides—the river with its quays and bridges, the parks and avenues, the huge buildings decorated with exquisite taste, the wide, open spaces adorned with glorious monuments, and the never-ending coming and going of pleasure-loving Parisians and Parisian ladies in costumes of the latest fashion.

From the Place de la Concorde we direct our steps to the Champs Élysées, a magnificent park with a broad carriageway along which the fashionable world rides, walks, or drives in smart carriages and motor cars. At the northern side of the park lives the President of the Republic in the palace of the Élysées.

If we now follow the double row of broad avenues northwards we come to the Place de l'Étoile, a "circus" where twelve avenues of large streets meet. One of them, a prolongation of the Champs Élysées, is named after the grand army of Napoleon and leads to the extensive Bois de Boulogne. In the middle of the Place de l'Étoile is erected a stately triumphal arch, 160 feet high, in memory of Napoleon's victories.

From here we follow a busy street as far as the bridge of Jena, and on the opposite bank of the Seine rises the Eiffel Tower, dominating Paris with its immense pillar 1000 feet high. The Eiffel Tower is the highest structure ever reared by human hands,

twice as high as the cathedral of Cologne and the tallest of the Egyptian pyramids. At the first platform we are more than 330 feet above the vast city, but the hills outside Paris close in the horizon. When the cage rises up to the third platform we are at a height of 864 feet above the ground, and see below us the Seine with its many bridges and the city with its innumerable streets and its 140 squares. A staircase leads up to the highest balcony, and at the very top a beacon is lighted at night visible 50 miles away. From the parapet we hardly dare allow our eyes to look down the perpendicular tower to the four sloping iron piers at its base, especially when it blows hard and the whole tower perceptibly swings. There is no need to go up in a balloon to obtain a bird's-eye view of Paris; from the top of the Eiffel Tower we have the town spread out before us like a map.

Napoleon's Tomb

When we have safely descended from the giddy height, we make our way across the Champ de Mars to the Hôtel des Invalides. Formerly several thousand pensioners from the great French armies found a refuge in this huge building, but now it is used as a museum for military historic relics.



PLATE XXV. NAPOLEON'S TOMB.
Hôtel des Invalides, Paris.

We pass in under the glittering gilded dome, visible all over the city, and find ourselves in a round hall,

the centre of which is occupied by a crypt, likewise round and several feet deep and open above. On the floor in mosaic letters are glorious names, Rivoli, Pyramids, Marengo, Austerlitz, Jena, Friedland, Wagram, and Moscow. Twelve marble statues, representing as many victories, and sixty captured colours keep guard round the great sarcophagus of red porphyry from Finland which contains the remains of Napoleon (Plate XXV.).

No one speaks in here. The deepest silence surrounds the ashes of the man who in his lifetime filled the world with the roar of his cannon and the thunder of his legions, and who within the space of a few years completely changed the map of Europe. Pale and subdued, the light falls over the crypt where the red porphyry speaks of irresistible power, and the white goddesses of victory are illumined as it were with a reflection of the years of glory.

Unconsciously we listen for an echo of the clash of arms and the words of command. We seem to see a blue-eyed boy playing at his mother's knee at Ajaccio in Corsica; we seem to hear a youthful revolutionist, burning with enthusiasm, making fiery speeches at secret clubs in Paris. Pale and solemn, the shade of the twenty-six-year-old general floats before our mind's eye as he returns from a series of victories in northern Italy, where he rushed like a storm over the plains of Lombardy, made a triumphal entry into Milan, and for ever removed the ancient republic of Venice from the list of independent States.

We recall the campaign of the French army against Egypt and the Holy Land. Napoleon takes his fleet out from the harbour of Toulon, escapes Nelson's ships of the line and frigates, seizes Malta, sails to

the north of Crete and west of Cyprus, and lands 40,000 men at Alexandria. The soldiers languish in the desert sands on the way to Cairo, they approach the Nile to give battle to the Egyptian army, and at the foot of the pyramids the East is defeated by the West. The march is continued eastwards to Syria. Five centuries have passed since the crusaders attempted to wrest the Holy Sepulchre from the hands of unbelievers. Now again the weapons of Western lands clash in the valley of the Jordan and at the foot of Mount Tabor, and now the French General obtains a victory over the Turks outside Nazareth. In the meantime, however, Nelson has annihilated his fleet. The flower of the republican army is doomed to perish, and Napoleon's dream of an oriental dominion has vanished with the smoke of the last camp fire. He leaves Egypt with two frigates, sails along the coasts of Tripoli and Tunis, and passes at night with extinguished lights through the channel between Africa and Sicily.

Again our eyes turn to the dim light under the cupola of the Invalides, and the marble columns and statues look white as snow. Then our thoughts wander off to the Alps, the Great St. Bernard, the St. Gotthard, Mont Cenis, and the Simplon, where the First Consul, like Hannibal before him, with four army corps bids defiance to the loftiest mountains of Europe. We seem to see the soldiers dragging the cannon through the frozen drifts and collecting together again on the Italian side. At Marengo, south of the Po, a new victory is added to the French laurels, and the most powerful man in France has the fate of Europe in his hands.

Then various episodes of his marvellous career pass before us. Our eyes fall on the name Austerlitz down

in the mosaic of the crypt. The Emperor of France has marched into Moravia and drawn up his legions under the golden eagles. A distant echo seems to sound round the crypt—it is Napoleon's cavalry riding down the Russian guards, it is the "grand army" annihilating the Austrian and Russian forces, it is the French artillery pounding the ice on the lake and drowning the fugitives, their guns and horses.

A murmur passes through the crypt, an echo from the battle of Jena, where Prussia was crushed, its territory devastated from the Elbe to the Oder, and its fortresses surrendered, Erfurt, Magdeburg, Stettin, Lübeck, while the victor made his entry into Frederick the Great's capital, Berlin. We hear the tread of the columns and the tramp of horses through the mud on the roads in Poland, and we see the bloody battlefields of Pultusk, east of the Vistula, and Eylau in West Prussia, where heaps of bodies lie scattered over the deep snow. We see Napoleon on his white horse after the battle of Friedland in East Prussia, where the Russians were defeated. The guards and hussars rode through them with drawn swords. Their enthusiastic cry of "Long live the Emperor" still vibrates under the standards round the sarcophagus; and above the shouts of victory the beat of horse hoofs is heard on the roads of Europe; it is the courier between the headquarters of the army and Paris.

The conqueror marches to Vienna, and threatens to crush Austria. He gains the bloody battle of Wagram, north-east of Vienna, he wipes out states and makes them dependencies of France and their rulers his obedient vassals, and he gives away royal crowns to his relations and generals. His dominion extends from Danzig to Cadiz, from the mouth of the Elbe to

the Tiber; he has risen to a height of power and glory never attained since the golden age of Rome.

Bayonets and sabres, cuirasses and helmets flash in the sunlight as the invincible army camps with band and music and song above the Niemen. Half a million of soldiers are on their way to the old capital of Russia, Moscow. The Russian roads from Vilna to Vitebsk are full of endless lines of troops, squadrons of cavalry in close formation, and enormous baggage trains. The Russians know that their freedom is in danger; they burn their own towns and villages, devastate their own provinces, and retire little by little, as they did a hundred years earlier when Charles XII. invaded Russia. At length there is a battle at Moscow, and the French army enters the town. We see in imagination the September nights lighted up far and wide by a blazing flame. Moscow is on fire. On the terrace of the Kremlin stands a little man in a grey military coat and a black cocked hat, watching the flame. Within a week the old holy city of the Muscovites lies in ashes.

The early twilight of winter falls over Paris, and we see the shadows deepen round Napoleon's tomb. We fancy we see among them human figures fighting against hunger, cold, and weariness. The time of misfortune is come. The great army is retreating, the roads are lined with corpses and fragments. The cannon are left in the snow. The soldiers fall in regiments like a ripe crop. Packs of wolves follow in their tracks: they are contented with the dead, but the Cossack squadrons cut down the living. At the bridge over the Beresina, a tributary of the Dnieper, 30,000 men are drowned and perish. All discipline is relaxed. The soldiers throw away their guns and knapsacks. Clothed in furs and with a birchen staff in

his hand, the defeated emperor marches like a simple soldier in the front. Thanks to the severe climate of their country and its great extent, and thanks also to their own cautious conduct of the war, the Russians practically annihilated Napoleon's army.

The darkness deepens. At Leipzig Russians, Austrians, Prussians, and Swedes oppose Napoleon. There his proud empire falls to pieces, even Paris is captured, and he loses his crown. He is carried a prisoner down the Rhone valley through Lyons, and shipped off to the island of Elba.

Once more he fills the world with tumult. With a brig and seven small vessels he sails back to the coast of France. He has a force of only 1100 men, but in his hands it is sufficient to reconquer France. He marches over the western offshoots of the Alps. At Grenoble his force has increased to 7000 men. In Lyons he is saluted as Emperor, and Paris opens its gates. He is ready to stake everything on a single throw. In Belgium is to be the decisive battle. Hostile armies gather round the frontiers of France, for Europe is tired of continual war. At Waterloo Napoleon fights his last battle, and his fate is sealed for ever.

He leaves Paris for the last time. At the port of Rochefort, between the mouths of the Loire and the Garonne, he goes on board an English frigate. After seventy days' sail he is landed on the small basaltic island of St. Helena in the southern Atlantic, where he is doomed to pass the last six years of his eventful life. Here also his grave is digged under the willows in the valley.

Nineteen years after Napoleon's death the simple grave under the willows was uncovered, the coffins

of wood, lead, and sheet-iron were opened in the presence of several who had shared his long imprisonment, the remains were taken on board a French frigate amid the roar of guns and flags waving half-mast high, the coffin was landed at Cherbourg in Normandy, and the conqueror of Europe once more made his entry into Paris with military pomp and ceremony, in which all France took part. Drawn by sixteen horses in funereal trappings and followed by veterans of Napoleon's campaigns, the hearse, adorned with imperial splendour, was escorted by soldiers under the triumphal arch of the Place de l'Étoile and through the Champs Élysées to the Hôtel des Invalides, where the coffin was deposited in the Finnish sarcophagus. Thus was fulfilled the last wish of the conqueror of the world: "I desire that my remains may rest on the banks of the Seine."

Paris to Rome

The stranger leaves Paris with regret, and is consoled only by the thought that he is on his way to sunny Italy. The train carries him eastwards, and he looks through the window at the hills and plains of Champagne, the home of sparkling wine. Around him spread tilled fields, villages, and farmhouses. Where the soil is not suitable for vines, wheat, or beet, it provides pasture for large flocks. Men are seen at work everywhere, and the traveller realises that France is so prosperous because all its small proprietors, peasants, and townspeople are so industrious and so thrifty. Now the frontier is reached. The great fortress of Belfort is the last French town passed, and a little later we are in Alsace.

Another frontier is crossed, that between Germany and Switzerland, and the train halts at the fine town of Bâle, traversed by the mighty Rhine. Coming from the Lake of Constance, the clear waters of the river glide under the bridges of Bâle, and turn at right angles northwards between the Vosges and the Black Forest.

From Bâle we go on south-westwards to Geneva. Along a narrow valley the railway follows the river Birs, which falls into the Rhine, and winds in curves along the mountain flanks, sometimes high above the foot of the valley, and sometimes by the river's bank. It is towards the end of January, and snow has been falling for several days on end. All the country is quite white, and the small villages in the valley are almost hidden.

Now we come to three lakes in a row, the Lake of Bienne, the Lake of Neuchâtel, and the great Lake of Geneva, which we reach at the town of Lausanne. Here the snow has ceased to fall, and the beautiful Alps of Savoy are visible to the south. The sun is hidden behind clouds, but its rays are reflected by the clear mirror of the lake. This view is one of the finest in the world, and our eyes are glued to the carriage window as the train follows the shore of Geneva.

In outline the lake is like a dolphin just about to dive. At the dolphin's snout lies Geneva, and here the river Rhone flows out of the lake to run to Lyons and debouch into the Mediterranean immediately to the west of the great port of Marseilles.

Geneva is one of the finest, cleanest, and most charming towns in the world. Between its northern and southern halves the water of the lake, deep blue

and clear as crystal, is drawn off into the Rhone as into a funnel. There the current is strong, and the river is divided into two by a long island.

The finest sight, however, is the view south-eastwards when the weather is clear. There stand the mighty summits and crests of the Alps of Savoy, now covered with snow, and glittering in white, light blue, and steely grey tints. There also Mont Blanc is enthroned above the other mountains, nay, above all Europe, awesome and grand, the crown of the Alps, the frontier pillar between Switzerland, France, and Italy.

From Geneva we go eastwards along the northern shore of the lake. The air is hazy, and the Alps of Savoy look like a light veil beneath the sun. In this light the water is of a bright green like malachite. Beyond Lausanne the mist disappears, and the Alps again appear dazzling white and steep as pyramids and towers. Towns, villages, and villas cast reflections of their white or coloured house-fronts and their light balconies on the lake. The shore is lined by a row of hotels surrounded by gardens and promenades. Travellers come hither from all countries in summer to feast their eyes on the Alps and strengthen their lungs by inhaling the fresh air.

We leave the lake and mount gently up the Rhone valley between wild rocks. It becomes narrower as we ascend. The Rhone, a tumultuous stream, roars in its bed, now quite insignificant compared to the majestic river at Geneva. In the valley tilled fields are laid out, dark green spruces peep out of the snow on the slopes, while above all the snow-white summits of the Alps are enthroned.

A few minutes beyond Brieg the train rushes at full

speed straight into the mountain. The electric lamps are lighted and all the windows closed. The tunnel is filled with smoke, and a continuous reverberation dins our ears. The Simplon tunnel is the longest in the world, being 12-1/2 miles long. It is only a few years since it was completed. Work was begun from both sides of the mountain at the same time, and when the excavations met in the middle and a blasting charge burst the last sheet of rock, it was found that the calculations had not been an inch out. After fully twenty minutes it begins to grow light, and when the train rolls out of the tunnel we are on Italian ground.

The train now descends a lovely valley to the shore of Lago Maggiore. Framed in steep mountains, the dark blue lake contains a small group of islands, full of white houses, palaces, and gardens. One of these is well known by the name of Isola Bella, or the Beautiful Island.

Night hides from our eyes the plains of Lombardy, Milan with its famous cathedral, the bridge over the Po, and then a number of famous old towns, including Bologna with its university about fifteen hundred years old.

Next morning, however, we see to the south-west something like a flaming beacon. It is the gilded dome of St. Peter's Church, which, caught by the rays of the rising sun, shines like a fire above the eternal city.

The Eternal City

The King of Italy has 35 million subjects, but in Rome lives another mighty prince, the Pope, though

his kingdom is not of this world. His throne is the chair of St. Peter, his arms the triple tiara and the crossed keys which open and close the gates of the kingdom of heaven. He has 270 million subjects, the Roman Catholics. For political reasons he is a voluntary prisoner in the Vatican, a collection of great palaces containing more than 10,000 halls and apartments. There also are installed museums, libraries, and collections of manuscripts of vast extent and value. The Vatican museum of sculpture is the richest in the world. In the Sistine Chapel, a sanctuary 450 years old, Michael Angelo adorned the roof with great pictures of the creation of the world and man, of the Fall and the Flood, and at the end wall an immense picture of the Last Judgment. To the west of the palace stands the Pope's gardens and park, and to the south the Church of St. Peter, the largest temple in Christendom. The whole forms a small town of itself; and this town is one of the greatest in the world, a seat of art and learning, and, above all, the focus of a great religion. For from here the Pope sends forth his bulls of excommunication against heretics and sinners, and here he watches over his flock, the Catholics, in accordance with the Saviour's thrice repeated injunction to Peter: "Feed my sheep."

A drive through Rome is intensely interesting. The streets are mostly narrow and crooked, and we are always turning corners, driving across small triangular open places and in lanes where it is ticklish work to pass a vehicle coming in the opposite direction. Yet no boulevards, no great streets in the world, can rival in beauty the streets of Rome. They are skirted by old grey palaces built thousands of years ago rather than centuries, decorated with the most splendid window frames, friezes, and

colonnades. Every portal is a work of art; round every corner comes a new surprise, a fountain with sea-horses and deities, a mediæval well, a moss-grown ruin of Imperial times, or a church with a tower whence bells have rung for centuries over Rome.

And what a commotion there is in all these narrow streets! Here comes a peasant driving his asses weighed down with baskets of melons and grapes. There a boy draws a handcart piled up with apricots, oranges, and nuts. Here we see men and women from the Campagna outside Rome, clad in their national costume, in which dirty white and red predominate, the men with black slouched hats, the women with white kerchiefs over their hair. They are of dark complexion, but on the cheeks of the younger ones the roses appear through the bronze. The patricians, the noble Romans who roll by lazily in fine carriages, are much fairer, and indeed the ladies are often as pale as if they had just left the cloister or were ready for the bier. Boys run begging after the carriage, and poor mothers with small infants in their arms beseech only a small coin. There are many in Rome who live from hand to mouth. But all are cheerful, all are comely.

Now we reach the bridge of St. Angelo over the muddy Tiber, and before us stands the massive round tower of the castle of St. Angelo, which the Emperor Hadrian built 1800 years ago as a mausoleum for himself. On the left is the piazza of St. Peter, which, with its surrounding buildings, its curved arcades, St. Peter's Church and the Vatican, is one of the grandest in the world. Between its constantly playing fountains has stood for 300 years an obelisk which the Emperor Caligula brought from Egypt to adorn

Rome. It witnessed wonderful events long before the time of Moses. At its foot the children of Israel sang the melodies of their country during their servitude. It was a decoration of Nero's circus, and saw thousands of Christian martyrs torn to pieces by Gallic hounds and African lions; and still it lifts itself 80 feet into the air in a single block, untouched by time and the strife of men.

At the north side of the piazza is the gate of the Vatican, where the Swiss Guards keep watch in antique red and yellow uniforms. Before us are the great steps of St. Peter's Church. We enter the grand portico and pass through one of the bronze doors into the church. All the dimensions are so immensely great that we stop in astonishment. Now our eyes lose themselves in sky-high vaulting, glittering with colour, and now we admire the columns and their capitals, pictures in mosaic or monuments in marble. Rome was not built in a day, says the proverb, and St. Peter's Church alone was the work of 120 years and twenty Popes. Italy's foremost artists, including Raphael and Michael Angelo, put the best of their energies into the building of this temple, where is the tomb of the Apostle Peter. The great church contains a bronze statue of the Apostle Peter in a sitting position, and the right foot is worn and polished by the kisses of the faithful. High above in the vaulting over his head is to be seen the following inscription in Latin:—"Thou art Peter, and upon this rock I will build my church, and I will give unto thee the keys of the kingdom of heaven."

Paul has also a worthy memorial church in Rome, St. Paul's, which stands outside the walls. On the way thither we pass a small chapel where, it is said, Peter and Paul took leave of each other before they went

to suffer martyrdom. On the façade the final words are inscribed. Paul said: "Peace be with you, thou foundation of the church and shepherd of Christ's lambs." And Peter: "Go forth in peace, thou preacher of the gospel, righteous guide to salvation." Paul's tomb is under the high altar of St. Paul's Church. In the interior of the church we notice portraits in mosaic of all the Popes from St. Peter to Leo XIII.

Rome is inexhaustible. It has grown up during 2600 years, and each age has built on the ruins of the preceding. The city is piled up in strata like a geological deposit. What lies hidden at the bottom is scarcely known at all; that is from the time of the early kings of Rome. Then follows the city of the Republic, and upon it the Rome of the Emperors, the cosmopolitan city, where the Cæsars from their palace on the Palatine stretched their sceptre over all the known world from foggy Britain and the dark forests of Germany to the burning deserts of Africa, from the mountains of Spain to Galilee and Judæa. Many stately remains of this time of greatness are still preserved among the modern streets and houses. Vandals, Goths, and other barbarians have sacked Rome, monsters of the Imperial house have devastated the city to wipe out the remembrance of their predecessors and glorify themselves; but if Rome was not built in a day, so two thousand years have not sufficed to blot out its magnificence.

Then follow new strata, the Christian age, the Middle Ages, and modern times, with their innumerable churches, monasteries, and massive solemn palaces. Christianity built on the ruins of paganism. Ancient and modern times are inextricably mixed. Up there on the Capitoline hill rides a Roman Emperor, Marcus Aurelius, in bronze. Look round, and there

on the farther bank of the Tiber another horseman looks over the eternal city, the brave champion of young Italy's liberty, Garibaldi. You ride through a street lined with grand shops in new buildings, and in a couple of minutes you are at the Forum Romanum, the Roman market-place, the heart of the world empire, the square for markets, popular assemblies, and judicial courts, a marble hall in the open air. Over its flags, victors, accompanied by their comrades in arms and their prisoners, marched up to the Capitol to sacrifice in the temple of Jupiter, where now only a few pillars and ruins remain of all the splendour Julius Cæsar and Augustus lavished upon it.



PLATE XXVI. THE COLOSSEUM, ROME.

At one time we are like pilgrims in the fine Church of St. Peter; at another we are strolling under the triumphal arch of Titus, erected in remembrance of the destruction of Jerusalem in the year A.D. 70.

The largest and grandest ruin in Rome is the Colosseum (Plate XXVI.), an amphitheatre which was built by the two Emperors, Vespasian and Titus, and which was finished eighty years after the birth of Christ. The outside walls are nearly 160 feet high. The tiers of benches, which could accommodate 85,000 spectators, were divided into four blocks, of which the outermost and highest was set apart for freedmen and slaves with their women. The tickets were of ivory, and indicated the different places so clearly that every one could easily find his way in the huge passages, colonnades, and staircases. The benches were covered with marble, and many statues of the same material adorned the upper walls of the amphitheatre. The spectacles were usually held in

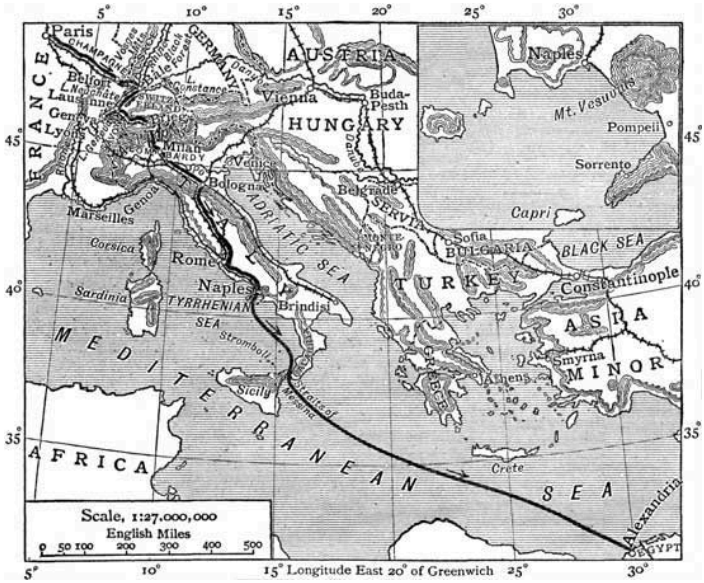
the daytime, and to abate the heat of the sun immense silken awnings were stretched over the arena and the auditorium. When the theatre was full, it presented a scene of dazzling splendour. In the best places sat senators in purple-bordered togas, the priests of the various temples, the Vestal virgins in black veils, warriors in gold-embroidered uniforms. There sat Roman citizens in white or coloured togas, bareheaded, beardless, and closely cropped, eagerly talking in a language as euphonious as French and Italian. All strangers who were staying in Rome were there, ambassadors from all the known countries of the world, statesmen, merchants, and travellers from Germany and Gaul, from Syria, Greece, and Egypt.

A circus or theatre of our day is a toy compared to the Colosseum. The old Romans were masters in the arrangement of spectacles to satisfy the rude cravings of the masses. Woods and rocks were set up, in which bloody contests were fought, and where gladiators hunted lions and tigers with spears. The immense show-ground could be quickly filled with water, and on the artificial lake deadly sea battles were fought; and the bodies of the slain and drowned lying on the bottom were invisible when the water was dyed red with blood. The arena could be drained at once by ingenious channels, slaves dragged out the corpses through the gate of the Goddess of Death, and the theatre was made ready for the night performance. Then the arena was lighted up with huge torches and fires, and troops of Christians were crucified in long rows or thrown to the lions and bears. When a Roman emperor celebrated the thousandth anniversary of the founding of Rome, two thousand gladiators appeared in the Colosseum, thirty-two elephants, and numbers of wild animals.

Not far from the Colosseum begins one of the oldest and most famous roads ever trodden by the foot of man—the Appian Way. Here emperors and generals marched into Rome after successful wars; here their remains were carried out to be burned on pyres and deposited in urns in mausoleums and tombs. Here the Christians came out at night in silent ranks to consign the remains of their co-religionists, torn to pieces in the arena, to the catacombs of underground Rome. Here also St. Paul made his entry into Rome, escorted by troops of Christians, as recorded in the last chapter of the Acts of the Apostles; and to-day we find on this road a small chapel which is called "Whither goest thou?" (*Quo vadis?*) at the point in the road where Peter saw his vision.

Pompeii

From Rome we go on to Naples, where to the east the regular volcanic cone of Vesuvius rears itself like a fire-breathing dragon over the bay, and where towns, villages, and white villas stand as thick on the shore as beads on a rosary. Our time is short; we drive rapidly through the lava-paved streets of Naples, and cannot feast our eyes long enough with the sight of these fine dark men in their motley dirty garments, and cannot hear enough of their melodious songs in honour of delightful Naples. Their warm affection for the famous city is quite natural, and one of their sayings, "See Naples and die," implies that life is worthless to any one who has not been there.



MAP SHOWING JOURNEY FROM PARIS TO ALEXANDRIA.

During our wanderings we come to the National Museum, and there we are lost to everything outside. There we forget the bustling life of the streets, the blue bay and the green gardens; for here we are in the presence of antiquity—an immense collection of artistic objects, statues, and paintings from Pompeii.

In the sixth century B.C. Pompeii was founded at the southern foot of Vesuvius, not far from the shore of the bay. About eighty years before our era Pompeii came under the rule of Rome, and during the succeeding 150 years it was changed into a genuine Roman town in all respects—in style of building, language, trade, and manner of life. A wall with towers enclosed this collection of streets and houses, and at night the eight town gates were closed and

shut in 20,000 inhabitants. In its principal square, a place of popular assemblies and festivals, stood the Temple of Jupiter among porticoes, arcades, and rows of marble statues. In another square theatres were erected, and there also stood an old Greek temple.

Many rich and eminent Romans loved Pompeii, and built costly villas in the town or its beautiful environs. One of these was the famous orator and author, Cicero, whose villa was situated near the north-eastern town gate. Again and again he went to Pompeii to rest after the noise and tumult of Rome, and the last time he is certainly known to have sojourned there was in the year 44 B.C., shortly after the murder of the great Cæsar.

From the vicinity of Cicero's villa ran north-west the Street of Tombs, bordered with innumerable monuments like the Appian Way outside Rome. Some were quite simple, others resembled costly altars and temples, and all contained urns with the bones and ashes of the dead.

Some streets were lined entirely with shops and stores. Most of the streets were straight and regular, some broad, others quite small; they were paved with flags of lava and had raised footpaths. Here and there stones were laid in a row across the street, whereon foot passengers could cross over dryshod after the heavy torrential rains, which then, as now, repeatedly converted these lanes into rivers and canals.

Pompeii had several bath-houses, luxuriously and comfortably furnished, built of stone, dark and cool, and very attractive during the warm, sultry summer. In the *apodyterium* the visitor took off his clothes,

and then repaired to the various rooms for warm air, warm baths, and cold baths. The walls in the *frigidarium* were decorated with paintings representing shady groves and dark forests; the vaulted roof was painted blue and strewn with stars, and through a small round opening the sunlight poured in. The basin itself was therefore like a small forest pool under the open sky. The bather was thoroughly scraped and shampooed by the attendants, and last of all smeared with odorous oils.

The houses of wealthy citizens were decorated with exquisite taste and artistic skill. Towards the streets the houses showed little besides bare plain walls, for the old Romans did not like the private sanctity of their homes to be disturbed at all by the noise of the streets and the inquisitiveness of people on the public roads. So it is still, if not in Italy and Greece, at any rate over all the Asiatic East. Pomp and state were only displayed in the interior. There were seen statues and busts, flourishing flower-beds under open colonnades, and in the midst of the principal apartment, called the *atrium*, was a marble basin sunk in the mosaic pavement, and through a quadrangular opening in the roof above the sun and moon looked in and the rain often mingled its drops with the jets of the constantly playing fountain. When the master of the house gave an entertainment, tables were carried in by slaves, and the guests took their luxurious meal lying on long couches. They ate, and drank, and jested, listening from time to time to the tones of flutes, harps, and cymbals, and watched the lithe movements of dancers with eyes dull and heavy with wine.

Happy days were spent in Pompeii in undisturbed peacefulness. People enjoyed the treasures of the

forests, gardens, and sea, transacted their business or the duties of their posts, and assembled for discussion in the Forum, where the columns cast cool shadows over the stone flags. No one thought of Vesuvius. The volcano was supposed to have become for ever extinct ages ago. On the ancient lava-streams old trees grew, the most luscious grapes ripened on the flanks of the mountain, and from their descendants is pressed out at the present day a wine called Lachryma Christi. A legend relates that when the Saviour once went up Vesuvius and stood in mute astonishment at the beautiful landscape surrounding the Bay of Naples, He also wept from grief over this home of sin and vanity; and where His tears moistened the ground there grew up a tendril which has not its like on earth.

The year before the burning of Rome, Pompeii was devastated by a fearful earthquake. The inhabitants soon took heart again, however, and built up their town better and more beautiful than ever. Sixteen years passed, and then the blow came, the most crushing and annihilating blow that ever befell any town since Sodom and Gomorrah were destroyed by fire from heaven.

The elder Pliny, who left to the world an immortal work, was then in command of a Roman fleet anchored in the Bay of Naples, and lived with his family in a place not far from Pompeii. His adopted son, the younger Pliny, a youth of eighteen, spirited, quick, and talented, was also with him. Vesuvius broke into eruption on August 24 in the year 79, and in a few hours Pompeii and two other towns were buried under a downpour of pumice and ashes, and streams of lava and mud. Among the victims was the elder Pliny.

Several years afterwards, the Roman historian Tacitus wrote to the younger Pliny and asked him for information about the manner of his uncle's death. The two letters containing answers to this question are still extant. Pliny describes how his uncle was suffocated by ashes and sulphurous vapour on the shore. He had himself seen flames of fire shoot up out of the crater, which also vomited forth a black cloud spreading out above like the crown of a pine-tree. He went out with his mother to the forecourt of the house, but when the ground trembled and the air became full of ashes they hurried off, followed by a crowd of people. His mother, who was old, begged him to save himself by rapid flight, but he would not desert her. And he writes: "I looked round; a thick smoky darkness rolled threateningly over us from behind; it spread over the earth like an advancing flood and followed us. 'Let us move to one side while we can see,' I said,' so that we may not fall down on the road and be trampled down in the darkness by those behind.' We had scarcely got out of the crowd when we were involved in darkness, not such as when there is no moon or the sky is overcast, but such as prevails in a closed room when the lights are out." And he tells how the fugitives tied cushions over their heads so as not to be bruised by falling stones, and how they had repeatedly to shake off the ashes lest they should be weighed down by them. He was quite composed himself, and thought that the whole world was passing away.



PLATE XXVII. POMPEII.
The Forum, with Vesuvius in the distance.

By this eruption Pompeii was buried under a layer of pumice and ashes 20 feet thick. For a long period of years the inhabitants of the neighbourhood came hither and digged up with their spades one thing or another, but then Pompeii sank into the night of oblivion and slumbered under the earth for fifteen hundred years. At last the town was discovered again, and excavations were commenced. Country houses, fields, and clumps of mulberry trees had sprung up on the deep bed of ashes. Not till fifty years ago did modern investigation take Pompeii seriously in hand, and now more than half the town is laid bare. Strangers can ride unhindered through the streets, look into the shops and baths, and admire the fine wall-paintings in the palaces of the great. The columns of Jupiter's temple, so long buried in complete darkness, are again lighted by the sun, and cast their shadows as of old over the stone flags of the Forum (Plate XXVII.). The Street of Tombs is

exposed, and young cypresses grow up among the monuments. The dead, which were already buried when Vesuvius scattered its ashes over them, listen now to strange footsteps on the road. But the unfortunates who were buried alive under the shower of ashes have decayed and turned to dust. And yet they may still be seen in the museums, with distorted limbs and their faces to the ground. We see them in the position they assumed when they fell and the ashes were bedded close to their sides. Thus they remained lying for eighteen hundred years, imbedded as in a mould. Their bodies returned to the earth, but the empty space remained. By pouring plaster into these forms, life-like figures of persons have been reproduced just as they were when death overtook them. Here lies a woman who fell outside her house and grasped with convulsive fingers a bag full of gold and silver. Here is a man resting his heavy head on his elbow, and here a dog which has curled itself up before it was at last suffocated.

So the sleeping town has wakened to life again, and the dead have returned from the kingdom of shadows. The excavated pictures, sculptures, and art treasures of Pompeii, together with the whole arrangement of the town, the style of building and the inscriptions, have thrown an unexpected light on the life of antiquity. We can even read the passing conceits scribbled on the walls. At one corner a house is offered for hire from July I—"intending tenants should apply to the slave Primus." On another a jester advises an acquaintance: "Go and hang thyself." A citizen writes of a friend: "I have heard with sorrow that thou art dead—so adieu!" Another wall bears the following warning: "This is no place for idlers; go away, good-for-nothing." It is curious to read the names Sodom and Gomorrah,

evidently scribbled by a Jew. Low down on the walls small schoolboys have practised writing the Greek alphabet, showing that Greek was included in their curriculum. And once were found written in charcoal, and only partly legible, the words, "Enjoy the fire, Christian," a scoff at the martyrs who, soaked in tar, were burned as torches in Nero's gardens.

From Naples we take a steamer for Egypt. After crossing the Bay of Naples we have to starboard the charming island of Capri. On its northern side you may swim or row in a shallow boat, under an arch of rock three feet high, into the Blue Grotto. Inside is a quiet crystal-clear sheet of water which extends more than 50 yards into the hill. The roof over its mirror is more than 160 feet high. The only light comes in through the small entrance. Owing to the reflections of the sky and water, everything in the grotto is blue, and stalactites hang like icicles from the roof and walls. If you dip an oar or your hand into the water it shines white as silver, owing to the reflection from the sandy bottom. It is possible to enter only in calm weather, or the boat would be stoved in against the rocky archway.

On a promontory to larboard appear the white houses and olive gardens of beautiful Sorrento, and then we steer out into the turquoise blue waters of the Tyrrhenian Sea. To the south the rocky island of Stromboli rises from the waves with its ever-burning volcano, like a beacon. In the Straits of Messina we skirt the shores of Sicily and Calabria, which have so frequently suffered from terrible earthquakes. At last we are out in the wide, open Mediterranean. Italy sinks below the horizon behind us, and we steam eastward to Alexandria, the port of the land of the

Pharaohs.

II

AFRICA

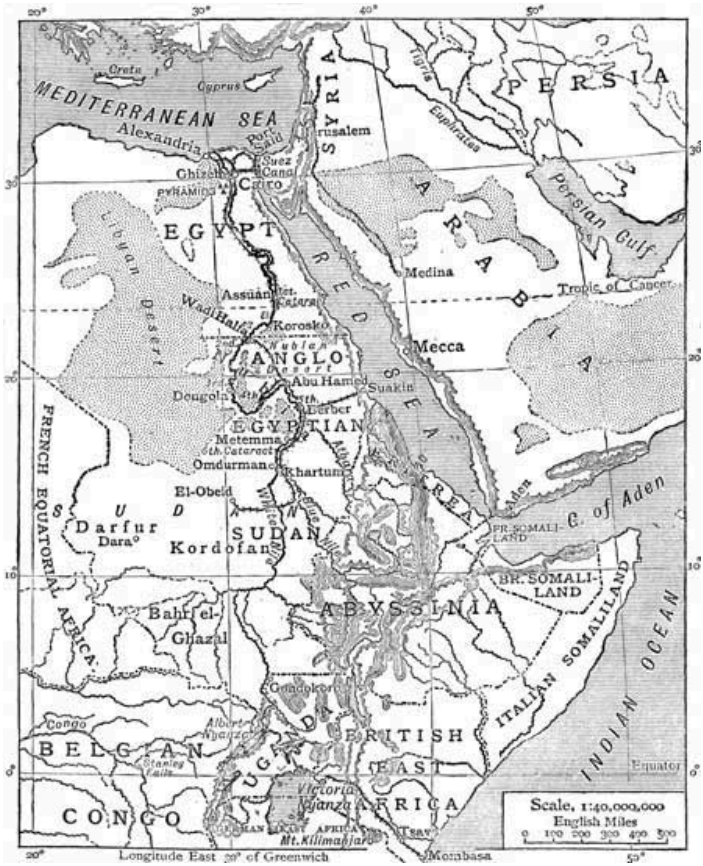
General Gordon

Seldom has the whole civilised world been so convulsed, so overwhelmed with sorrow, at the death of one man as it was when in January, 1885, the news flashed along the telegraph wires that Khartum had fallen, and that Gordon was dead.

Gordon was of Scottish extraction, but was born in one of the suburbs of London in the year 1833, and as a young lieutenant of engineers heard the thunders of war below the walls of Sebastopol. As a major of thirty years of age he commanded the Imperial army in China, and suppressed the furious insurrection which raged in the provinces around the Blue River. "The Ever-Victorious Army" would have come to grief without a strong and practical leader, but in Gordon's hands it soon deserved its name. He made his plans quickly and clearly, brought his troops with wonderful rapidity to the most vulnerable points in the enemy's position, and dealt his blows with crushing force. In a year and a half he had cleared China of insurgents and restored peace.

After several years of service at home and other

wanderings in Eastern lands, Gordon accepted in 1874 an invitation to enter into the service of the Khedive of Egypt. The Khedive Ismail was a strong man with far-reaching projects. He wished to extend his dominion as far as the great lakes where the Nile takes its rise, and Gordon was to rule over a province named after the equator.



MAP OF NORTH-EASTERN AFRICA, SHOWING EGYPT AND THE SUDAN.

Immediately to the south of Cairo begins a plateau which stretches from north to south through almost the whole continent. In Abyssinia it attains to a considerable height, and near the equator rises into the loftiest summits of Africa. These mountains screen off the rain from Egypt and large areas of the Sudan. The masses of vapour which are carried over Abyssinia in summer by the monsoon are precipitated as rain in these mountain tracts, and consequently the wind is dry when it reaches Nubia and Egypt; while the moisture which rises from the warm ocean on the east, and is borne north-westwards by the constant trade-wind, is converted into water during eight months of the year among the mountains on the equator.



PLATE XXVIII. THE GREAT PYRAMIDS AT GHIZEH.

The rain which falls on the mountains of Abyssinia gives rise to the Atbara and Blue Nile, which produce abundant floods in the Nile during autumn; and during the rest of the year the White Nile, which

comes from the great lakes on the equator, provides for the irrigation of Egypt. Thus the country is able to dispense with rain, and innumerable canals convey water to all parts of the Nile valley. Many kinds of grain are cultivated—wheat, maize, barley, rice, and durra (a kind of millet); vegetables, beans, and peas thrive, numerous date palms suck up their sap from the heavy, sodden silt on the river's banks, and sugar-cane and cotton are spreading more and more. Seen at a height from a balloon, the fields, palms, and fruit-trees would appear as a green belt along the river, while the rest of the country would look yellow and grey, for it is nothing but a dry, sandy desert.

The Nile, then, is everything to Egypt, the condition of its existence, its father and mother, the source of the wealth by which the country has subsisted since the most remote antiquity. Now that we are about to follow Gordon along the Nile to the equator, we must not forget that we are passing through an ancient land. The first king of which there are records lived 3200 years before the Christian era, and the largest of the Great Pyramids at Ghizeh is 4600 years old (Plate XXVIII.). Its funeral crypt is cut out of the solid rock, and in it still stands the red granite sarcophagus of Cheops. Two million three hundred thousand dressed blocks, each measuring 40 cubic feet, were used in the construction of this memorial over a perishable king, and the pyramid is reckoned to be the largest edifice ever built by human hands. The buildings and works of the present time are nothing compared to it. Only the Great Wall of China can vie with it, and this is ruined and to a large extent obliterated, while the pyramid of Cheops still stands, scorched by the sun, or sharply defined in the moonlight, or dimly visible as a mysterious

apparition in the dark, warm night.

Twelve hundred miles south of the capital of modern Egypt the desert comes to an end, and the surface is covered by vast marshes and beds of waving reeds. This is the Sudan, "the Land of the Blacks." At the point where the White and Blue Niles mingle their waters lay the only town in the Sudan, Khartum, whither trade-routes converged from all directions, and where goods changed hands. Here were brought wares which never failed to find purchasers. The valuable feathers plucked from the swift-footed ostrich were needed to decorate the hats of European ladies; the wild elephants, larger and more powerful than their Indian congeners, were shot or caught in pitfalls in the woods for the sake of their precious ivory. But the most esteemed of all the wares that passed through Khartum were slaves—"black ivory," as they were called by their heartless Arab torturers. Elephants' tusks are heavy, and cannot be transported on horses or oxen from the depths of the forest, for draught animals are killed by the sting of the poisonous tsetse fly. Therefore the tusks had to be carried by men, and when these had finished their task they were themselves sold into Egypt, Syria, and Turkey. The forests and deserts were not inexhaustible; ivory and ostrich feathers might be worked out, but there would always be negroes.

When the Khedive Ismail invited Gordon to enter his service as governor of the new province not far from the sources of the Nile, Gordon accepted the post in the hope that he would be able to suppress slave-trading, or at least to check the hunting of black men and women. He left Cairo and travelled by the Red Sea to Suakin, rode to Berber on the Nile, and was received with much pomp and ceremony by the

Governor-General at Khartum. Here he heard that the Nile was navigable for 900 miles southwards, and therefore he could continue his journey without delay.

The Nile afforded an excellent passage for Gordon's small steamboat. But the Nile can also place an insurmountable obstacle in the traveller's way. After the rainy season the White Nile overflows its banks, forming an inextricable labyrinth of side branches, lakes, and marshes. The country lies under water for miles around. The waterway between impenetrable beds of reeds and papyrus is often as narrow as a lane. The roots of large plants are loosened from the mud at the bottom, and are compacted with stems and mud into large sheets which are driven northwards by the rushing water. They are caught fast in small openings and sudden bends, and other islets of vegetation are piled up against them. Thus the river course is blocked, and above these natural dams the water forms lakes. Such banks of drifting or arrested and decaying vegetation are called *sudd*, and the more it rains the greater are the quantities that come down. At length the *sudd* becomes soft and yields to the pressure of the water, and then the Nile is navigable again.

Gordon's small steamer glides gently up the river. He advances deeper and deeper into a world unknown to him, and around him seethes tropical Africa. On the banks papyrus stems wave their plumes above the reeds. It was from the pith of papyrus stems that the old Egyptians made a kind of paper on which they wrote their chronicles. Here and there swarthy natives are seen between the reed beds, and sometimes noisy troops of wandering monkeys gaze at the boat. The hippopotami look like floating

islands, but show themselves only at night, wallowing in the shallow water. A little beyond the luxuriant vegetation of the banks extends the boundless grassland with its abundant animal life and thin scattered clumps of trees.

After a journey of four days the steamer glided past an island. There dwelt in a grotto a dervish or mendicant monk named Mohamed Ahmed, who ten years later was to be Gordon's murderer.

In the middle of April Gordon and his companions were in Gondokoro, a small place which now stands on the boundary between the Sudan and British East Africa, and here he took charge of his Equatorial Province. He forced the Egyptian soldiers, who garrisoned this and one or two other posts on the Nile and robbed on their own account, to plough and plant; he arrested all slave-hunters within reach and freed the slaves; he succoured the poor, protected the helpless, and sent durra to the hungry.

The heat was excessive, and Gordon and his staff were pestered by crowds of gnats. It was still worse in September when the rain poured down and large tracts were converted into swamp, from which dangerous miasma was exhaled. In a month seven of Gordon's eight officers had died of fever, but he himself continued his work undismayed, and wrote in his diary: "God willing, I shall do much in this country."

He soon perceived that the best districts of his province lay around the large lakes in the south. But the Equatorial Province was too far away from Egypt. It hung as it were on a long string, the Nile, and from the largest lake, the Victoria Nyanza, the distance to Cairo in a straight line was nearly 2200

miles. Much shorter was the route to Mombasa on the east coast, so Gordon advised the Khedive to occupy Mombasa and open a road to the Victoria Nyanza. Then it would be easier to contend against the slave-trade. He described the condition of the Sudan in forcible letters, and into the Khedive's ears were dinned truths such as he never heard from his servile pashas. He would first establish steam communication with the lakes, and a number of boats which could be taken to pieces were on the way to his province.

The boats came up at the time when the Nile began to rise after rain, and then his plan was to advance farther southwards. The natives were opposed to this progress and feared the supremacy of Egypt, and therefore they tried to prevent the advance of the "White Pasha," who was loath to employ arms against them. All they wanted was to be left in peace in their grasslands and forests; and when now an intruder, whose aims they did not understand, penetrated into their country, they endeavoured whenever they could to bar his way, so that he was obliged, much against his will, to resort to force.

After all kinds of troubles and difficulties he reached at last the northernmost of the Nile lakes, the Albert Nyanza, and it was a great feat to have brought a steamer even thus far. He did not succeed in reaching the Victoria Nyanza, for the ruler of the country between the lakes had resolved to oppose with all his power any intruder, were he white man or Arab.

For three years Gordon was at work on the Upper Nile in the neighbourhood of the equator. During the next three years we find him in the deserts of the

Sudan farther north. He was Governor-General of the whole of the Egyptian Sudan, and Khartum was his capital. His province was 1200 miles broad, from the Red Sea to the Sahara, and as long from north to south. The whole country was in a state of unrest. The Khedive had carried on an unsuccessful war against the Christian King of Abyssinia, and the Mohammedan states of Kordofan and Darfur were in revolt against Egypt. There half-savage Beduin tribes were scattered about over the deserts, and there some of the worst slave-dealers had their haunts.

In May, 1877, Gordon mounted his swift dromedary to set out on a journey of 2000 miles. He wished to visit the villages and camps of the slave-dealers in distant Darfur. The hot season had set in. When the sun stood at its meridian altitude the shadow of the dromedary disappeared beneath the animal. A dreary desert extended on all sides, greyish-yellow, dusty, and dry.

The White Pasha skims over the desert mile after mile. He has the finest dromedary in all the land, an animal that became famous throughout the Sudan. Some hundreds of Egyptian troopers follow him, but he leaves them all far behind and only a guide keeps up with him. He rushes over the desert like the wind, and suddenly and unexpectedly draws rein at the gates of an oasis before the guard can shoulder their arms. After giving his orders in the name of the Khedive, he disappears as mysteriously, no one knows whither. At another oasis, perhaps 300 miles away, the chief has been warned of his coming and has therefore posted watchmen to look out for him. Round about lies the desert, sandy and yellow, with a surface as level as a sea, where the approach of the White Pasha can be seen from a long distance. The

watchman announces that two black specks are visible in the distance, which, it is supposed, are the Pasha's outriders, and some hours must pass before he arrives with his troops. The two specks grow larger and come rapidly nearer. The dromedaries swing their long legs over the ground, seeming to fly on invisible wings. Now the men have come to the margin of the oasis. The watchers can hardly believe their eyes. One of the riders wears the gold-embroidered uniform of an Egyptian pasha. Never had the Sudan seen a Governor-General travelling in this way—without flags and noisy music, and stripped of all the display appropriate to his rank.

And as he came so he flew away again, mysteriously and incomprehensibly. Again and again he lost his armed force. In some districts he closed the paths leading to wells in order to bring the refractory tribes to submission. With inflexible severity he broke the power of the chiefs who still carried on trade in slaves. He freed numbers of black captives and drilled them as soldiers, for his own fighting men were the scum of Egypt and Syria. With a handful of men he dealt his blows at the weakest points of the enemy's defence and thus always gained the victory. In four months he suppressed the revolt and checked the power of the slave-dealers.

Gordon had now cleared all the west of the Sudan, and only Dara in southern Darfur remained to be dealt with. There the most powerful slave-dealers had collected to offer resistance. He came down one day like lightning into their camp. They might easily have killed him—it was he who had ruined their trade in black ivory. He went unconcernedly among the tents, and they did not dare to touch him. And when his own troops arrived, he summoned all the

chiefs to his tent and laid his conditions before them. They were to lay down their arms and be off each to his own home; and one by one they obeyed and went away without a word.

But the slave-trade was a weed too deeply rooted in the soil to be eradicated in a single day, and the revolt and troubles which constantly arose out of this horrible traffic gave Gordon no peace. He left the Sudan at the end of 1879, and the next two years were occupied with work in India, China, Mauritius, and South Africa. Meanwhile remarkable events had occurred in Egypt. Great Britain had sent vessels and troops to the land of the Khedive, and had taken over the command and the responsibility. The chief of the dervishes, Mohamed Ahmed, whom we remember on the small island in the Nile, proclaimed that he was chosen by God to relieve the oppressed, that he was the Mahdi or Messiah of Islam. Discontent prevailed among the Mohammedans throughout the Sudan, for Egypt had at length prohibited the slave-trade, and the Mahdi collected all the discontented people and tribes under his banner. His aim was to throw off the yoke of Egypt. Proud and arrogant, he sent despatches through the whole of the Sudan, and his summons to a holy war flew like a prairie fire over North Africa.

The British Government, which was now responsible for Egypt, was in a difficulty. The Sudan must either be conquered or evacuated, for the Egyptian garrisons were still at Khartum and at several places even down to the equator. The Government decided on evacuation, and Gordon was sent to perform the task of withdrawing all the garrisons. He accepted the mission and set out immediately for Cairo.

Thus Gordon began his last journey up the Nile. At Korosko, just at the northern end of the great S-shaped bend of the Nile, he mounted his dromedary and followed the narrow winding path which has been worn out during thousands of years through the dry hollows of the Nubian desert, over scorched and weathered volcanic knolls and through dunes of suffocating sand.

On February 18, 1884, Gordon, for the second time Governor-General of the Sudan, made his entry into Khartum, where he took up his quarters in his old palace. Cruelty and injustice had again sprung up during the years he had been absent. He opened the gates of the overcrowded gaols, and the prisoners were released and their fetters removed. All accounts of unpaid taxes were burned in front of the palace. All implements of punishment and torture were broken to pieces and thrown into the Nile.

Then began the evacuation of the town. As many as 3000 women and children were sent to Abu Hamed and through the desert to Korosko. They got through without danger and were saved. Where women and children could travel, it would have been easy to lead troops from Egypt. Instead of this, however, England despatched an expedition to Suakin to secure an outlet on the Red Sea, whereupon the rebellious tribes of the Sudan were roused to fury, believing that the white men intended to come and take their country. Consequently they rallied all the more resolutely round the Mahdi, and their hatred extended to the dreaded Gordon and the few Europeans with him in Khartum.

As long as the telegraph line was still available to Cairo, Gordon kept the authorities informed of the

state of affairs and pointed out what should be done to ensure success. He asked especially that the road from Berber to Suakin should be held, for from this line also the Sudan could be controlled, but his advice was not attended to and Berber was eventually surrounded by the Mahdi's troops and captured. Several chiefs north and north-east of Khartum, who had previously been friendly disposed, now joined the Mahdi. News of fresh desertions came constantly to Khartum, and even in the town itself Gordon was surrounded by traitors. On March 10 the telegraph line was cut and then followed six months of silence, during which the world learned little or nothing of the brave soldier in the heart of Africa. On March 11 Arab war parties appeared on the bank of the Blue Nile, for the Mahdi was drawing his net ever closer round the unfortunate town.

During the preceding years the Egyptian Government had caused Khartum to be fortified after a fashion, and during the earlier months of the siege Gordon worked day and night to strengthen the defences. His soldiers threw up earthern ramparts round the town, a network of wire entanglements was set up, and mines were laid at places where an assault might be expected. At the end of April the town was entirely blockaded, and only the river route to the north was still open. At the beginning of May the Arabs crossed the Blue Nile, suffering great losses from exploding mines and the guns of the town. In the early part of September there were still provisions for three months, and the Arabs, perceiving that they could not take the town by storm from the White Pasha, resolved to starve it out.

The Nile was now at its highest, and huge grey turbid volumes of water hurried northwards. Now

was the only chance for a small steamer to try to get to Dongola, where it would be in safety. On the night of September 9 a small steamer was made ready for starting, and Gordon's only English comrades, Colonel Stewart and Mr. Power, went on board, together with the French Consul, a number of Greeks, and fifty soldiers. They took with them accounts of the siege, correspondence, lists and details about provisions, ammunition, arms, men, and plans of defence, and everything else of particular value. Silently the steamer moved off from the bank, and when day dawned Gordon was alone. Alas, the little steamer never reached Dongola, for it was wrecked immediately below Abu Hamed. Every soul on board was murdered, and all papers of value fell into the hands of the Mahdi. On the other hand, Gordon's diary from September 10 to December 14, 1884, is still extant, and is wonderful reading.

By this time the British Government had at last decided to send an expedition to relieve Khartum. River boats were built in great numbers, troops were equipped for the field, the famous general, Lord Wolseley, was in command, and by the middle of September the first infantry battalion was up at Dongola on the northern half of the great S of the Nile. But then the steamers had only just arrived at Alexandria, and had to be taken up the Nile and tediously dragged through the cataracts, while the desert column which was to make the final advance on Khartum had not yet left England. A long time would be required to get everything ready.

In Khartum comparative quiet as yet prevailed. The dervishes bided their time patiently, encamping barely six miles from the outworks. Shots were exchanged only at a distance. On September 21

Gordon learned by a messenger that the relief expedition was on the way, and ten days later he sent his steamboats northwards to meet it and to hasten the forwarding of troops. But thereby he lost half of his own power of resistance.

On October 21 the Mahdi himself arrived in the camp outside Khartum, and on the following day sent Gordon convincing proofs that Stewart's steamboat had sunk and that all on board had been slain. He added a list of all the journals and documents found on board. From these the Mahdi had learned almost to a day how long Khartum could hold out, the strength of the garrison, the scheme of defence, where the batteries stood and how long the ammunition would last. This was a terrible blow to the lonely soldier, but it did not break down his courage. The death of Stewart and his companions grieved him inexpressibly, but he sent an answer to the Mahdi that if 20,000 boats had been taken it would be all the same to him—"I am here like iron."

In the relief expedition was a major named Kitchener, who was afterwards to become very famous. He tried to get into Khartum in disguise to carry information to Gordon, and he did succeed in sending him a letter with the news that the relieving force would set out from Dongola on November 1. When the letter reached Gordon the corps had been two days on the march, but the distance from Dongola to Khartum is 280 miles in a straight line.

By November 22 Gordon had lost nearly 1900 of his fighting men, but his diary shows that he was still hopeful. On December 10 there were still provisions for fifteen days. The entries in the diary now become shorter, and repeatedly speak of fugitives and

deserters, and of the diminishing store of provisions. On December 14 Gordon had a last opportunity of sending news from Khartum, and the diary which the messenger took with him closes with these words: "I have done the best for the honour of our country. Good-bye."

After the sending-off of the diary impenetrable darkness hides the occurrences of the last weeks in Khartum. One or two circumstances, however, were made known by deserters. During the forty days during which the town held out after December 14, 15,000 townspeople were sent over to the Mahdi's camp, and only 14,000 civilians and soldiers were left in the doomed city. Omdurman fell, and the Mahdi's troops pressed every day more closely on all sides. Actual starvation began, and rats and mice, hides and leather were eaten, and palms stripped to obtain the soft fibres inside. But the White Pasha rejected all proposals to surrender.

Meanwhile the relief columns struggled southwards and on January 20, 1885, reached Metemma, only a hundred miles from Khartum. There they fell in with Gordon's boats, which had lain waiting in vain for four months, and four days later two of the boats started for Khartum.

Halfway they had to pass up the sixth cataract, there losing two days more, and not till the 28th had they left the rapids behind them. The noonday sun was shining brightly when the English soldiers and their officers saw Khartum straight in front of them on the point between the White and Blue Niles. All glasses were turned on the tall palace; every one was in the greatest excitement and dared hardly breathe, much less speak. There stood Gordon's palace, but no flag

waved from the roof.

The boats go on, but no shouts of gladness greet their crews as long-looked-for rescuers. When they are within range the dervishes open fire, and wild troops intoxicated with victory gather on the bank. Khartum is in the hands of the Mahdi, and help has come 48 hours too late.

Two days before, January 26, the dervishes, furious at their continual losses and the obstinate resistance of the town, had flocked together for a final assault. The attack was made during the darkest hour of the night, after the moon had set. The defenders were worn out and rendered indifferent by the pangs of hunger. The dervishes rushed into the town, filling the streets and lanes with their savage howling. It was then that Gordon gathered together his twenty remaining faithful soldiers and servants, and dashed sword in hand out of the palace. It was growing light in the east, and the outlines of bushes and thickets on the Blue Nile were becoming clear. The small party took their way across an open square to the Austrian Mission church, which had previously been put in order for a last refuge. On the way they were met by a crowd of dervishes and were killed to the last man. Foremost among the slain was Gordon.

The Conquest of the Sudan

The Mahdi did not long enjoy the fruits of his victory, for he died five months to the day after the fall of Khartum. His successor, Abdullah, bore the title of Khalifa, and for thirteen years was a scourge to the unfortunate land. The tribes of the Sudan, tired of the oppression of Egypt, had welcomed the Mahdi as a deliverer, but they had only exchanged

Turkish pashas for a tyrant unmatched in cruelty and shamelessness. Abdullah plundered and exhausted the country, but with the money and agricultural produce he extorted from the people he was able to maintain a splendid army always ready for the field. His capital was Omdurman, where the Mahdi was buried under a dome; but he did not fortify the town, for long before any Christian dogs could advance so far their bones would whiten in the sands of Nubia.

Yet after many years the hour of vengeance was at hand. The British Government had taken the pacification of the Sudan in hand, and in 1898 an army composed of British and Egyptian troops was advancing quietly and surely up the Nile. There was no need to hurry, and every step was made with prudence and consideration. The leader, General Kitchener, the last man to send a letter to Gordon, made his plans with such foresight and skill that he could calculate two years in advance almost the very day when Khartum and Omdurman would be in his hands.

At the Atbara, the great tributary of the Nile which flows down from the mountains of Abyssinia, Kitchener inflicted his first great defeat on the Khalifa's army in a bloody battle. From Atbara the troops pushed on to Metemma without further fighting, and on August 28 they were only four days' march from Khartum.

The green of acacia and mimosa is now conspicuous on the banks of the river, which is very high. The grey gunboats pass slowly up the Nile in the blazing sun, and the troops push on as steadily and as surely as they have from the start of the expedition. Small parties of mounted dervishes are seen in the far

distance. The country becomes more diversified, and the route runs through clumps of bushes and between hillocks. A short distance in front are seen white tents, flags, and horsemen, and the roll of drums is heard. It is the Khalifa calling his men to the fight; but at the last moment the position is abandoned, the dervishes retire, and Kitchener's army continues its march.

At length the vaulted dome over the Mahdi's grave beside the Nile bank rises above the southern horizon, and round about it are perceived the mud houses and walls of Omdurman. Between the town and the attacking army stretches a level sandy plain scantily clothed with yellow grass; and here took place a battle which will not be forgotten for centuries throughout the Sudan.

On the morning of September 2, Kitchener's forces are drawn up in order of battle. Single horsemen emerge from the dust on the hillocks, increase in number, and then come in clouds like locusts—an army of 50,000 dervishes. Their fanatical war-cry rises up to heaven, gathers strength, grows louder, and rolls along like a storm wind coming in from the sea. They charge at a furious pace in an unbroken line, and it looks as though they would ride like a crushing avalanche right over the enemy. But the moment they come within range fire issues from thousands of rifles, and the dervishes find themselves in a perfect hail of bullets. Their ranks are thinned, but they check their course only for a moment, and ride on in blind fury and with a bravery which only religious conviction can inspire. The English machine guns scatter their death-bolts so rapidly that a continuous roll of thunder is heard, and the dervishes fall in heaps like ripe corn before the

scythe. The fallen ranks are constantly replaced by fresh reinforcements, but at last the dervishes have had enough and beat a retreat. At once Kitchener pressed on to Omdurman, but the bloody day is not yet at an end. The dervish horsemen rally yet once more. The Khalifa's standard is planted in the ground on a mound, and beside it the Prophet's green banner calls the faithful together for a last desperate struggle. The English and their Egyptian allies fight with admirable courage, and the dervishes strike with a bravery and contempt of death to which no words can do justice. Under the holy banner a detachment advances into the fire, wavers, is mown down, and falls, and almost before the smoke of the powder has cleared away, another presses forward on the track of the slain, only to meet the same fate and join their comrades in the happy hunting-grounds of eternity.

At length the day was ended and the Khalifa's army annihilated—11,000 killed, 16,000 wounded, and 4000 prisoners! The Khalifa himself escaped. His harem and servants deserted him, and he who in the morning had been absolute ruler over an immense kingdom, wandered about in the woods like an outlaw. He fled to the south-west and succeeded in collecting another army, which was completely cut to pieces the following year in a battle in which he himself also perished.

When all was quiet in Omdurman, the victors had a solemn duty to fulfil. Thirteen and a half years had passed since the death of Gordon, and at last the obsequies of the hero were to be celebrated in a fitting manner. In the court in front of Gordon's palace the troops are drawn up on three sides of a square, and on the fourth stands the victor,

surrounded by generals of divisions and brigades and by his staff. Kitchener raises his hand, and in a moment the Union Jack rises to the top of the flagstaff on the palace, while a thundering salute from the gunboats greets the new colours and the Guards' band plays the National Anthem. Another sign, and the flag of Egypt goes up beside the Union Jack and the Khedive's hymn is played. Then the belated funeral service is impressively conducted by four clergymen of different Christian denominations, the Sudanese band plays a hymn which Gordon loved, and lastly Kitchener is saluted with the greatest enthusiasm by the officers and men under his command.

Ostriches

Now all is changed in the Sudan. A railway runs from the Nile delta up to Khartum, and another connects Berber with the Red Sea. In Khartum there are schools, hospitals, churches, and other public buildings, and one can travel safely by steamboat up to the great lakes. Gordon's scheme to connect the Victoria Nyanza with Mombasa on the coast has been carried out, and a railway has been constructed through British East Africa. White men have advanced from all sides deeper and deeper into the Black Continent, and have made themselves masters of almost all Africa. Wild animals have suffered by this intrusion into their formerly peaceful domain, and their numbers have been diminished by the chase. In some districts game has quite disappeared, the animals having sought remoter regions where they can live undisturbed.

In the Sahara, in the Libyan desert, on the open

grasslands along the Upper Nile, on the veldt of South Africa, wherever the country is open and free, lives the ostrich; but it does not occur in the worst desert tracts, which it crosses only in case of necessity, for it likes to have water always near at hand.

The appearance of the ostrich is no doubt familiar. It is powerfully built; its long bare neck supports a small flattened head with large bright eyes; the long legs rest on two toes; and the wings are so small that the animal is always restricted to the surface of the ground, where, however, it can move with remarkable swiftness. The valuable feathers grow on the wings. The ostrich attains a height of eight feet, and when full grown may weigh as much as 165 pounds.

Ostriches live in small flocks of only five or six birds. They feed in the morning, chiefly on plants, but they also devour small animals and reptiles. By midday their stomachs are full, and they rest or play, leaping in circles over the sand, regardless of the blazing sun or the heated ground. Then they drink and wander about eating in the afternoon. In the evening they seek their roosting-places.

Sight is the ostrich's acutest sense, but its scent and hearing are also sharp. When it is pursued, it darts off with fluttering wings, taking steps ten or twelve feet long. It is always on the look-out for danger, and the zebra likes to keep near it to avail itself of the bird's watchfulness. In North Africa the Arabs hunt the ostrich on swift horses or running dromedaries. Two or three horsemen follow a male, which after an hour's course is tired out, and gradually relaxes its pace. The horses also are tired after such a chase, but

one of the riders urges on his steed to a last spurt, rushes past the ostrich, and hits it on the head so that it falls to the ground. The bird is then skinned, the skin being turned inside out so as to form a bag for the feathers. The feathers of the wild ostrich are much finer and more valuable than those of the tame. A full-grown ostrich has only fourteen of the largest white feathers.

The hens lay their eggs in a shallow hollow in loamy or sandy soil, and it is the male bird which sits on the eggs. In the daytime the nest may be left for hours, but then the ostriches cover the eggs with sand. The young ones leave their shells after six weeks and go out into the desert. They are already as large as fowls, but then an ostrich egg weighs as much as twenty-four hen's eggs, and measures six inches along its greatest diameter.

The ostrich is remarkably greedy, and turns away from nothing. The great zoologist, Brehm, who had tame ostriches under his care, reports that they ate rats and chickens and swallowed small stones and potsherds, and once or twice his bunch of keys disappeared down the stomach of an ostrich. In one ostrich's stomach was found nine pounds of "ballast"—stones, rags, buttons, bits of metal, coins, keys, etc.

Some say that the ostrich is inconceivably stupid, but others will not accept such a severe condemnation. The traveller Schillings, who is noted for his photographs of big game in Africa taken at night by flashlight, once followed the spoor of some lions for several hours. Suddenly he came upon an ostrich's nest with newly hatched chickens, and he wondered where the parents were. To his astonishment, he

found that the lion had not touched the defenceless creatures, and he soon discovered the reason. In the moonlight night the ostriches had perceived the danger in time and sprang up to lure the lion away from the nest. Their stratagem succeeded, for it was evident from the spoor that the lion had pursued the flying ostriches farther and farther from the nest. And when the pair of ostriches thought that they had enticed the king of animals far enough off, they returned home.

Baboons

Baboons are monkeys which resemble dogs rather than human beings, and almost always remain on the ground, seldom climbing trees. They are cruel, malicious, and cunning, their expression is fierce and savage, and their eyes wicked. Among their allies they are surpassed in strength only by the gorilla; and they are bold and spirited, and do not shun a deadly struggle with the leopard. They have sharp and powerful teeth with which to defend themselves, and their tusks are very formidable.

The old Egyptians paid deep homage to the sacred apes, which belong to the baboon tribe, and had them represented on their monuments as judges in the kingdom of death. They live in large companies among the cliffs of the Red Sea coast of Nubia and Abyssinia, but they also occur in the interior on high mountains. Roots, fruits, worms, and snails are their chief food. They are afraid of snakes, but they catch scorpions, carefully pinching off the poison gland before eating the reptiles. When durra fields are in the neighbourhood of the baboons' haunts, watchmen must be posted, or the animals work great

havoc among the grain. And when they are out on a raid, they, too, have sentinels on the lookout in every direction.

During the night and when it rains they sit huddled up among inaccessible rocks, whither they climb with wonderful activity. They sally forth in the morning to satisfy their hunger, returning to the high rocks at noon. Afterwards they go to the nearest brook or spring to drink, and after another meal retire for the night.

If a party of such baboons, consisting perhaps of a hundred individuals, is sitting in a row near the edge of a cliff and suddenly becomes aware of a threatening danger—as, for instance, a prowling leopard—they all utter the most singular noises, grunting, shrieking, barking, and growling. The old males go to the edge and look down into the valley, fuss about and show their ugly tusks and strike their forepaws against the sides of the rock with a loud smack. The young ones seek their mother's protection and keep behind them.

Brehm once surprised such a party huddled together on the margin of a cliff. The first shot that echoed through the valley roused the greatest commotion and displeasure, and the monkeys howled and bellowed in chorus. Then they began to move with astonishing activity and surefootedness. Two more shots thundered through the valley, doing no damage but increasing their panic and fury. At every fresh shot they halted a moment, beat their paws against the rocks and yelled abuse at their disturbers. The front of the cliff seemed in some places to be vertical, but the baboons climbed about everywhere. At the next bend of the road the whole troop came down

into the valley, intending to continue their flight among the rocks on the opposite side. Two sporting dogs in Brehm's caravan flew off like arrows after the troop of baboons, but before they could come up with it, the old baboons halted, turned round and presented such a terrible front to the dogs that these quickly turned back. When the dogs were hounded on to the baboons a second time, most of the latter were already safe among the rocks, only a few remaining in the valley, among them a small young one. Frightened at the onslaught of the dogs, the little creature fled shrieking up a boulder, while the dogs stood round its base. Brehm wished to catch the young one alive, but just then an old male came calmly to the boulder, taking no heed of the danger. He turned his fierce eyes on the dogs, controlling them with his gaze, jumped up on to the block, whispered some calming sound into the ear of the young one, and set out on his return with his protégé. The dogs were so cowed that they never attacked, and both the young baboon and his rescuer were able to retire unmolested to their friends.

The Hippopotamus

In the lakes and rivers of all central Africa lives the large, clumsy, and ugly hippopotamus. In former times it occurred also in Lower Egypt, where it was called the river hog, but at the present day it is necessary to go a good distance south of Nubia in order to find it. In many rivers it migrates with the seasons. It descends the river as this falls in the dry season, and moves up again when the bed is filled by rain.

The body of the hippopotamus is round and clumsy,

and is supported by four short shapeless legs with four hoofed toes on each foot. The singular head is nearly quadrangular, the eyes and ears are small, the snout enormously broad and the nostrils wide (Plate XXIX.). The hairless hide, three-quarters of an inch thick, changes from grey to dark brown and dirty red according as it is dry or wet. The animal is thirteen feet long, without the small short tail, and weighs as much as thirty full-grown men.



PLATE XXIX. A HIPPOPOTAMUS.

The hippopotamus spends most of his time in the water, but goes on land at night, especially in those districts where the rivers do not afford much food. Stealing carefully along a quiet river the traveller may often take him by surprise, and see two small jets of water rise from his nostrils when he comes up

to breathe, snorting and puffing noisily. Then he dives again, and can remain under water three or four minutes. When he lies near the surface only six small knobs are seen above the water, the ears, eyes, and nostrils. If he is not quite sure of the neighbourhood, he thrusts only his nostrils above water and breathes as noiselessly as possible.

Hippopotami often lie splashing in shallow water, or climb up on to the bank to sun themselves and have a quiet lazy time. Very frequently they are heard to make a grunting noise of satisfaction. When evening comes they seek the deeper parts of the river, where they swim up and down, chase one another, and roll about in the water with great nimbleness and activity. They swim with great speed, throwing themselves forward in jerks, and filling the air with their gurgling bellowing cry; yet if they like they can swim so quietly that not the least ripple is heard. A wounded hippopotamus stirs up the water so that a small canoe may capsize in the swell from his forequarters.

When several old males are bellowing together, the din is heard for miles through the forest and rolls like thunder over the water. No other animal can make such a noise. Even the lion stops to listen.

On the Upper Nile, above Khartum, where the most luxuriant vegetation struggles for room on the banks, and the river often loses itself in lakes and swamps, the hippopotamus, like the crocodile, seldom goes ashore. Here he lives under lotus plants and papyrus leaves, soft reeds and all the other juicy vegetation that thrives in water-logged ground. He dives and rummages for a couple of minutes, stirring up the water far around. When he has his huge mouth full

of stems and leaves, he comes up to the surface again, and the water streams in cataracts off his rounded body.

In districts where he goes on land to graze, he often works great damage among the corn and green crops, and may even attack the villagers. And he is not always to be trifled with if a canoe disturbs his repose. The most dangerous is a mother when her young ones are small. She carries them on her back as she swims and dives, sometimes to the bottom of the river. A gun must be heavily loaded if the shot is to have any effect on such a monster, and penetrate such a cuirass of hide. If the animal puffs and dives, he is lost to the hunter; but if he raises himself high out of the water and then falls again with a heavy thud, the wound is mortal and the hippopotamus sinks to the bottom. After an hour or two the body rises to the surface again.

Some negro tribes on the White Nile dig pitfalls for hippopotami, and on the rivers which enter Lake Ngami (see map, p. 262) on its northern shore the natives hunt for them with harpoons, much in the same way as whales are killed in the northern and southern oceans. The harpoons have a sharp barbed blade of iron, and this point is secured by strong string to a stout shaft of wood, the end of which is attached by a line to a float. Two canoes are dragged on to a raft of bundles of reed tied together, and between them the black hunters crouch with harpoons and light javelins in their hands. When all is ready, the raft is pushed out into the current and drifts noiselessly down the river. The huge animals can be heard rolling and splashing in the water in the distance, but they are still hidden behind a bed of

reeds. The raft glides gently past the point, but the hippopotami suspect no danger. One of them comes up close beside the raft. The harpooner stands up like a flash of lightning and drives his sharp weapon with all his strength into the animal's flank. The wounded hippopotamus dives immediately to the bottom, and the line runs out. The float follows the hippopotamus wherever he takes his flight, and the canoes, now in the water, follow. When the brute comes up again, he is received with a shower of javelins, and dives again, leaving a blood-red streak behind him. He may be irritated when he is attacked time after time by spears, and it may happen that he turns on his persecutors and crushes a too venturesome canoe with his great tusks, or gives it a blow underneath with his head. Sometimes the animal is not content with the canoes, but attacks the men, and many too daring hunters have lost their lives in this way. When the hippopotamus has been sufficiently tired out, the hunters pick up the float, and take the line ashore to wind it round a tree, and then they pull with all their might to draw the creature up out of the water.

The flesh is eaten everywhere, especially that of the young animals, and the tongue and the fat of the older ones are considered delicacies. Riding-whips, shields, and many other articles are made out of the hide, and the large tusks are valuable. Hippopotami may be seen in some of the zoological gardens in Europe, but they do not thrive well in the care of man.

Man-eating Lions

A terrible tale of man-eating lions is told by Colonel Patterson in his book *The Man-Eaters of Tsavo*.

Colonel Patterson had been ordered for service on the Uganda Railway, which runs from Mombasa north-westwards through British East Africa to the great lake Victoria Nyanza, the largest source-lake of the Nile. But in 1898, when the Colonel arrived, the railway had not been carried farther than the Tsavo, a tributary of the Sabaki, which enters the sea north of Mombasa. Here at Tsavo (see map, p. 237) the Colonel had his headquarters, and in the neighbourhood were camped some thousands of railway coolies from India. A temporary wooden bridge crossed the Tsavo, and the Colonel was to build a permanent iron bridge over the river, and had besides the supervision of the railway works for thirty miles in each direction.

Some days after his arrival at Tsavo the Colonel heard of two lions which made the country unsafe. He paid little heed to these reports until a couple of weeks later, when one of his own servants was carried off by a lion. A comrade, who had a bed in the same tent, had seen the lion steal noiselessly into the camp in the middle of the night, go straight to the tent, and seize the man by the throat. The poor fellow cried out "Let go," and threw his arms round the beast's neck, and then the silence of night again fell over the surroundings. Next morning the Colonel was able to follow the lion's spoor easily, for the victim's heels had scraped along the sand all the way. At the place where the lion had stopped to make his meal, only the clothes and head of the unfortunate man were found, with the eyes fixed in a stare of terror.

Disturbed by this sight and the sorrowful occurrence, the Colonel made a solemn oath that he would give himself no rest until both the lions were dead. Gun in

hand, he climbed up into a tree close by his servants' tent and waited. The night was quiet and dark. In the distance was heard a roar, which came nearer as the two man-eaters stole up in search of another victim. Then there was silence again, for lions always attack in silence, though when they start on their night prowl they utter their hoarse, awful cry, as though to give warning to the men and animals in the neighbourhood. The Colonel waited. Then he heard a cry of terror and despair from another camp a hundred yards away, and after that all was still again. A man had been seized and dragged away.

Now the Colonel chose a waiting-place where the last man had been carried off, but here, too, he was disappointed. A heart-rending shriek rang through the night at still another part of the camp, and another workman was missing.

The Indian workmen lay in several scattered camps, and evidently the lions chose a fresh camp every night to mislead the men. When they found that they could carry off a man with impunity every night or every other night, they grew bolder, and showed not the least fear of the camp fires, which were always kept alight. They paid no heed to the noise and tumult they caused, or even to gunshots fired at them in the darkness. A tall, thick fence of tough, thorny bushes was erected round each camp as a protection, but the lions always jumped over or broke through it when they wanted a man. In the daytime the Colonel followed their tracks, which were plainly visible through the thickets, but of course could not be perceived on stony ground.

Things became still worse when the rails were laid farther up the country, and only a few hundred

workmen remained with Colonel Patterson at the Tsavo bridge. He had unusually high and strong fences built up round his camp, and the fires were enlarged to blazing pyres, watchmen kept guard, guns were always ready, and within the enclosure empty oil tins were banged together to scare the beasts if possible. But it was all no use. Still more victims disappeared. The Indian workmen became so panic-stricken that they could not shoot, though the lion was often just in front of them. A patient was taken from the hospital tent, and the next victim was a water-carrier from another part of the camp. He had been lying with his head towards the middle of the tent and his legs outwards. The lion had sprung over the fence, seized the man by the foot, and dragged him out. In his despair he had grabbed at a box standing by the tent canvas, and instead had caught hold of a tent rope, which gave way. Then the lion, with his prey in his mouth, had run along the fence looking for a weak spot, and when he had found one, he dashed right through the fence. Next morning fragments of clothing and flesh were found on the paths. The other lion had waited outside, and they had consumed their prey together.

Then followed an interval of quiet, during which the lions were engaged elsewhere. It was hoped that the tranquillity would continue, and the workmen began to sleep outside because of the heat. One night they were sitting round a fire, when a lion suddenly jumped noiselessly over the fence and stood gazing at them. They started up and threw stones, pieces of wood, and firebrands at the beast, but the lion sprang forward, seized his man, and dashed through the fence. His companion was waiting outside, and they were so impudent that they ate their victim only thirty yards off.

The Colonel sat up at night for a whole week at the camp where a visit was expected. He says that nothing can be more trying to the nerves than such a watch, time after time in vain. He always heard the warning roar in the distance, and knew that it meant, "Look out; we are coming." The hungry cry sounded hoarser and stronger, and the Colonel knew that one of his men, or perhaps he himself, would never again see the sun rise over the jungle in the east, and there was always silence when the brutes were near. Then the watchmen in the various camps would call out, "Look out, brothers, the devil is coming." And shortly afterwards a wild scream of distress and the groans of a victim would proclaim that the lion's stratagem had been successful again. At last the lions became so daring that both cleared the fence at once, to seize a man apiece. Once one lion did not succeed in dragging his man through the fence, and had to leave him and content himself with a share of his comrade's booty. The man left behind was so badly mauled that he died before he could be carried to the hospital tent.

No wonder that the poor workmen, wearied and worn by sleeplessness, excitement, and fear of death, decided that this state of affairs must come to an end. They struck. They said that they had come to Africa to work at the railway, and not to supply food for lions. One fine day they took a train by storm, put all their belongings into the carriages, took their seats themselves, and went off to the coast. The courageous men who remained with the Colonel passed the night in trees, in the station water-tank, or in covered holes digged down within their tents.

On one occasion the Colonel had invited a friend to come up to Tsavo and help him against the lions. The

train was late, and it was dark when the guest followed the path through the wood to the camp. He had a servant with him, who carried a lantern. Halfway a lion rushed down on them from a rise, tore four deep gashes in the Englishman's back, and would have carried him off if he had not fired his carbine. Dazed with the report, the lion loosed his hold and pounced on the servant. Next moment he had vanished in the darkness with his prey.

A few days later a Suaheli came and said that the lion had seized an ass, and was engaged in his meal not far away. Guided by the Suaheli, the Colonel hastened up and could see from a distance the back of the lion above the bushes. Unfortunately the guide stepped on a twig, and the lion immediately vanished into impenetrable brushwood. Then the Colonel ran back and called out all his men. Provided with drums, sheets of metal and tin cans, they surrounded the thicket, and closed in with a great noise, while the Colonel kept watch at the place where the animal would probably come out. Quite right—there he came, huge and fierce, angry at being disturbed. He came forward slowly, halting frequently, and looking around. His attention was so taken up by the noise that he did not notice the sportsman. When he was about thirteen yards off the Colonel raised his double-barrelled rifle. The lion heard the movement, struck his front claws into the ground, drew back on to his hind paws as though to gather himself up for a spring, and snarled wickedly, showing his murderous fangs. Then the Colonel took aim at the head, pressed the trigger, and—the rifle missed fire!

Fortunately the lion turned at that moment to go back into the thicket, and the other shot had no

effect but to call forth a furious roar and hasten his flight. The untrustworthy gun had been borrowed for the occasion, and after this the Colonel determined to rely on his own weapon.

The ass lay still untouched. A platform twelve feet high was erected on poles close to the carcase, and on this the Colonel took up his position at sunset. The twilight is very short on the equator, and the night soon grows dark when there is no moon. The nights in Africa's jungles are silent with an evil-foreboding and awesome silence, which conceals so many ambushes and costs so many lives. The inhabitants of the jungle may expect an ambush at any moment. The lonely Colonel waited, gripping his rifle hard. He relates himself that he felt more and more anxious as time went on. He knew that the lion would come to feed on the ass, for no cry of distress was heard from the adjacent camps.

Hist! that sounds like a small twig breaking under a weight. Now it sounds like a large body crushing through the bushes. Then all is quiet again. No, a deep breath, a sure sign of hunger, betrays the proximity of the monster. A terrible roar breaks the stillness of the night. The lion has perceived the presence of a man. Will he fly? No, far from it, he scorns the ass and makes for the Colonel. For two hours he prowls about the platform in gradually diminishing circles. Now the lion has matured his plan of attack, and goes straight towards the platform for the decisive spring. The animal is just perceptible against the sandy ground. When he is quite close the first shot thunders through the night, the lion utters a frightened roar and plunges into the nearest bushes. He writhes, and bellows, and moans, but the sounds grow weaker, till after a few long-

drawn breaths all is quiet again. The first man-eater has met his fate.

Before the dawn of day the workmen came out with trumpets and drums, and, with shouts of rejoicing, carried the lion-killer round the dead animal. The other lion continued his visits, and when he too bit the dust a short time after, the men could quietly resume their work on the railway, and the Colonel, who had freed the neighbourhood from a scourge that had troubled it for nine months, became a general hero. The foreman composed a grand song in his honour, and presented a valuable testimonial from all the men.

One day he dined with the postmaster Ryall in a railway carriage, little suspecting the fate that was to befall the latter in the same carriage a few months later. A man-eating lion had chosen a small station for his hunting-ground, and had carried off one man after another without distinction of rank and worth. Ryall travelled with two other Europeans up to the place to try and rid it of the lion. On their arrival they were told that the animal could not be far away, for it had been quite recently in the neighbourhood of the station. The three Europeans resolved to watch all night. Ryall's carriage was taken off the train and drawn on to a siding. Here the ground had not been levelled, so the carriage was tilted a little to one side. After dinner they were to keep watch in turns, and Ryall took the first watch. There was a sofa on either side of the carriage, one of them higher above the floor than the other. Ryall offered these to his guests, but one of them preferred to lie on the floor between the sofas. And when Ryall thought he had watched long enough without seeing the lion, he lay down to rest on the lower sofa.

The carriage had a sliding door which slipped easily in its grooves, and was unfastened. When all was quiet the lion crept out of the bush, jumped on to the rear platform of the carriage, opened the door with his paws, and slipped in. But scarcely had he entered, when the door, in consequence of the slope of the carriage, slid to again and latched itself. And thus the man-eater was shut in with the three sleeping men.

The sleeper on the higher sofa, awakened by a sharp cry of distress, saw the lion, which filled up most of the small space, standing with his hind legs on the man lying on the floor, and his forepaws on Ryall, on the lower sofa on the opposite side. He jumped down in a fright to try and reach the opposite door, but could not get past without putting his foot on the back of the lion. To his horror, he found that the servant, who had been alarmed by the noise, was leaning against the door outside; but, putting forth all his strength, he burst open the door and slipped out, whereupon it banged to again. At the same moment a loud crash was heard. The lion had sprung through the window with Ryall in his mouth, and as the aperture was too small, he had splintered the woodwork like paper. The remains of the man were found next day and buried. Shortly after the lion was caught in a trap, and was exhibited for several days before being shot.

David Livingstone

In a poor but respectable workman's home in Blantyre, near Glasgow, was born a hundred years ago a little lad named David Livingstone, who was to make himself a great and famous name, not only as

the discoverer of lakes and rivers, but also as one of the noblest men who ever offered their lives for the welfare of mankind.



LIVINGSTONE'S JOURNEYS IN AFRICA

In the national school of the town he quickly learned to read and write. His parents could not afford to let him continue his studies, but sent him at ten years of

age to a cotton mill, where he had to work from six o'clock in the morning till eight in the evening. The hard work did not break his spirit, but while the machines hummed around him and the thread jumped on the bobbins, his thoughts and his desires flew far beyond the close walls of the factory to life and nature outside. He did his work so well that his wages were raised, and he spent his gains in buying books, which kept him awake far into the night. To add to his knowledge he attended a night-school, and on holidays he made long excursions with his brothers.

Years fled and the boy David grew up to manhood. One day he told his parents that he wished to be a medical missionary, and go to the people in the east and south, tend the sick, and preach to any who would listen. In order to procure means for his studies he had to save up his earnings at the factory, and when the time was come he went with his father to Glasgow, hired a room for half-a-crown a week, and read medicine. At the end of the session he went back to the factory to obtain money for the next winter course. Finally he passed his examination with distinction, and then came the last evening in the old home and the last morning dawned. His father went with him to Glasgow, took a long farewell of his son, and returned home sad and lonely.

Livingstone sailed from England to the Cape, and betook himself to the northernmost mission-station, Kuruman in Bechuanaland. Even at this time he heard of a fresh-water lake far to the north. It was called Ngami, and he hoped to see it one day.

From Kuruman he made several journeys in different

directions to gain a knowledge of the tribes and their languages, to minister to their sick and win their confidence. Once when he was returning home from a journey and had still 150 miles to trek, a little black girl was found crouching under his waggon. She had run away from her owner because she knew that he intended to sell her as a slave as soon as she was full-grown, and as she did not wish to be sold she determined to follow the missionary's waggon on foot to Kuruman. The good doctor took up the frightened little creature and provided her with food and drink. Suddenly he heard her cry out. She had caught sight of a man with a gun who had been sent out to fetch her and who now came angrily to the waggon. It never occurred to Livingstone to leave the defenceless child in the hands of the wretch. He took the girl under his protection and told her that no danger would befall her henceforth. She was a symbol of Africa, the home of the slave-trade. And Africa's slaves needed the help of a great and strong man. Livingstone understood the call and worked to his last hour for the liberation of the slaves, as Gordon did many years later. He strove against the cruel and barbarous customs of the natives and their dark superstitions, and hoped in time to be able to train pupils who would be sent out to preach all over the country. In one tribe the medicine-men were also rainmakers. Livingstone pointed out to the people of the tribe that the rainmakers' jugglery was only a fraud and of no use, but offered, if they liked, himself to procure water for the irrigation of their fields, not by witchcraft but by conducting it along a canal from the neighbouring river. Some rough tools were first hewn out, and he had soon the whole tribe at work, and the canal and conduits were laid out among the crops. And there stood the witch-doctors

put to shame, as they heard the water purling and filtering into the soil.

In 1843 Livingstone started off to found a new mission-station, named Mabotsa. The chief of the place was quite willing to sell land, and he received glass beads and other choice wares in payment. Mabotsa lay not far from the present Mafeking, but seventy years ago the whole region was a wild. On one occasion a lion broke into the village and worried the sheep. The natives turned out with their weapons, and Livingstone took the lead. The disturber of the peace was badly wounded and retired to the bush. But suddenly he rushed out again, threw himself on Livingstone, buried his teeth in his shoulder, and crushed his left arm. The lion had his paw already on the missionary's head, when a Christian native ran up and struck and slashed at the brute. The lion loosed his hold in order to fly at his new assailant, who was badly hurt. Fortunately the animal was so sorely wounded that its strength was now exhausted, and it fell dead on the ground. Livingstone felt the effects of the lion's bite for thirty years after, and could never lift his arm higher than the shoulder; and when his course was run his body was identified by the broken and reunited arm bone. He had to keep quiet for a long time until his wound was healed. Then he built the new station-house with his own hands, and when all was ready he brought to it his young bride, the daughter of a missionary at Kuruman.

Another missionary lived at Mabotsa and did all he could to render Livingstone's life miserable. The good doctor hated all quarrelling, and did not wish that white men should set a bad example to the blacks, so he gladly gave way and moved with his wife forty

miles northwards. The house in Mabotsa had been built with his own savings, and as the London Missionary Society gave him a salary of only a hundred pounds a year, there could not be much over to build a house. When he left, the natives round Mabotsa were in despair. Even when the oxen were yoked to the waggon, they begged him to remain and promised to build him another house. It was in vain, however; they lost their friend and saw him drive off to the village of Chonuane, which was subject to the chief Sechele.

From the new station Livingstone made a missionary journey eastwards to the country whither the Dutch Boers had trekked from the Cape. They had left the Cape because they were dissatisfied with the English administration of the country, for the English would not allow slavery and proclaimed the freedom of the Hottentots. The Boers, then, founded a republic of their own, the Transvaal, so named because it lay on the other side of the Vaal, a tributary of the Orange River. Here they thought they could compel the blacks to work as bondmen in their service without being interfered with. They took possession of all the springs, and the natives lived on sufferance in their own country. The Boers hated Livingstone because they knew that he was an enemy to the slave trade and a friend to the natives.

Livingstone had plenty of work at the station. He built his house, he cultivated his garden, visited the sick, looked after his guns and waggons, made mats and shoes, preached, taught in his children's school, lectured on medicine, and instructed the natives who wished to become missionaries. In his leisure hours he collected natural history specimens, which he sent home, studied the poisonous tsetse fly and the deadly

fever, and was always searching for remedies. He was never idle.

His new place of abode had one serious defect—it was badly situated as regarded rain and irrigation, and therefore Livingstone decided to move again forty miles farther to the north, to Kolobeng, where for the third time he built himself a house. As before, his black friends were much disturbed at his departure, and when they could not induce him to remain, the whole tribe packed up their belongings and went with him. Then clearing, building, and planting went on again. At Kolobeng Livingstone had a fixed abode for quite five years, but this was his longest and last sojourn in one place, for his after-life was a continuous pilgrimage without rest and repose. As usual, he gained the confidence and friendship of the natives.

The worst trouble was the vicinity of the Boers. They accused him of providing Sechele's tribe with weapons and exciting them against the Boers. They threatened to kill all black missionaries who ventured into the Transvaal, and devised plans for getting rid of Livingstone. Under such conditions his work could not be successful, and he longed to go farther north to countries where he could labour in peace without hindrance from white men who were nominally Christians, but treated the natives like beasts. Besides, hard times and famine now came to Kolobeng. The crops suffered from severe drought, and even the river failed. The natives went off to hunt, and the women gathered locusts for food. No child came to school, and the church was empty on Sunday.

Then Livingstone resolved to move still farther

northwards, and on June 1, 1849, the party set out. An Englishman named Oswell, who was Livingstone's friend, went with them and bore all the expenses of the journey. He was a man of means, and so several waggons, eighty oxen, twenty horses, and twenty-five servants were provided.

After two months' march they came to the shore of Lake Ngami, which was now seen for the first time by Europeans. The king, Lechulatebe, proved less friendly than was expected. When he heard that Livingstone intended to continue his journey northwards to the great chief Sebituane, he feared that the latter would obtain firearms from the white men and would come down slaying and pillaging to the country round the lake. Finally the expedition was obliged to turn back to Kolobeng. Livingstone, however, was not the man to give in, and he went twice more to the lake, taking his wife and children with him.

On one of these journeys he came to the kingdom of the great and powerful Sebituane, and was received with the most generous hospitality. The chief gave him all the information he wished, and promised to help him in every way. A few days later, however, Sebituane fell ill of inflammation of the lungs and died.

Livingstone then continued his journey north-eastward with Oswell to the large village of Linyanti, and shortly after discovered a river so large and mighty that it resembled one of the firths of Scotland. The river was called the Zambesi. Its lower course had long been known to Europeans, but no one knew whence it came. The climate was unhealthy, and was not suitable for the new mission-

station that Livingstone intended to establish. The Makololo people, the tribe of the deceased chief, promised to give him land, huts, and oxen if he would stay with them, but his mind was now occupied with great schemes and he gave up all thoughts of a station. Honest, legitimate trade must first be made to flourish. The Makololo had begun to sell slaves simply to be able to buy firearms and other coveted wares from Europe. If they could be induced to sell ivory and ostrich feathers instead, they would be able to procure by barter all they wanted from European traders and need not sell any more human beings. But to start such a trade a convenient route must first be found to the coast of either the Atlantic or Indian Ocean. A country in which the black tribes were in continual war with one another simply for the purpose of obtaining slaves was not ripe for Christianity. Accordingly Livingstone's plan was clear: first to find a way to the coast, and then to foster an honest trade which would make the slave-trade unnecessary.

Having sent his wife and children to England, Livingstone made his preparations, and in the year 1853 he was at Linyanti, in the country of the Makololo. Here began his remarkable journey to Loanda on the west coast, not far south of the mouth of the Congo. No European had ever travelled this way. His companions were twenty-seven Makololos, and his baggage was as light as possible, chiefly cloth and glass beads, which serve as currency in Africa. He took no provisions, as he thought he could live on what the country afforded.

The journey was difficult and troublesome, through a multitude of savage tribes. First the Zambesi was followed upwards, and then the route ran along

other rivers. In consequence of heavy rain, swollen watercourses and treacherous swamps had to be crossed continually. Livingstone rode an ox which carried him through the water after a small portable boat had been wrecked and abandoned. Swarms of mosquitoes buzzed over the moist ground, and Livingstone repeatedly caught fever from the damp, close exhalations, and was often so ill that he could not even sit on his ox. But amidst all these difficulties and hardships he never omitted to observe the natural objects around him and to work at his map of the route. His diary was a big volume in stout boards with lock and key, and he wrote as small and as neatly as print.

Step by step he came nearer the sea. Most opportunely they met a Portuguese, and in his company the small troop entered the Portuguese territory on the west coast. The Portuguese received Livingstone with great hospitality, supplied him with everything he wanted, and rigged him out from top to toe.

Some English cruisers were lying off Loanda, having come to try to put down the slave-trade, and Livingstone enjoyed a delightful rest with his countrymen and slept in a proper bed after having lain for half a year on wet ground. It would have been pleasant to have had a thorough holiday on a comfortable vessel on the voyage to England after so many years' wanderings in Africa, but Livingstone resisted the temptation. He could not send his faithful Makololos adrift; besides, he had found that the route to the west coast was not suitable for trade, and was now wondering whether the Zambesi might serve as a channel of communication between the interior and the east coast. So he decided to turn

back in spite of fever and danger, bade good-bye to the English and Portuguese, and again entered the great solitude.

Before Livingstone left Loanda he put together a large mass of correspondence, notes, maps, and descriptions of the newly discovered countries, but the English vessel which carried his letters sank at Madeira with all on board, and only one passenger was saved. News of the misfortune reached Livingstone when he was still near the coast, and he had to write and draw all his work again, a task that took him months. If he had left the Makololo men to their fate he would have travelled in the unfortunate vessel.

Rain and sickness often delayed him, but on the whole his return journey was easier. He took with him from Loanda a large stock of presents for the chiefs, and they were no longer strangers. And when he came among the villages of the Makololo, the whole tribe turned out to welcome him, and the good missionary held a thanksgiving service in the presence of all the people. Oxen were killed round the fires at night, drums were beaten, and with dance and song the people filled the air far above the crowns of the bread-fruit trees with sounds of gladness. Sekeletu was still friendly, and was given a discarded colonel's uniform from Loanda. In this he appeared at church on Sunday, and attracted more attention than the preacher and the service. His gratitude was so great that when Livingstone set out to the east coast he presented his white friend with ten slaughter oxen, three of his best riding oxen, and provisions for the way. And more than that, he ordered a hundred and twenty warriors to escort him, and gave directions that, as far as his power

extended over the forests and fields, all hunters and tillers of the ground should provide the white man and his retinue with everything they wanted. Not the least remarkable circumstance connected with Livingstone's travels was that he was able to carry them out without any material help from home. He was the friend of the natives, and travelled for long distances as their guest.

Now his route ran along the bank of the Zambesi, an unknown road. During his earlier visit to Linyanti he had heard of a mighty waterfall on the river, and now he discovered this African Niagara, which he named the Victoria Falls. Above the falls the river is 1800 yards broad, and the huge volumes of water dash down foaming and roaring over a barrier of basalt 390 feet high to the depth beneath. The water boils and bubbles as in a kettle, and is confined in a rocky chasm in some places barely 50 yards broad. Clouds of spray and vapour hover constantly above the fall, and the natives call it "the smoking water." Among the general public in Europe, Livingstone's description of the Victoria Falls made a deeper impression than any of his other discoveries, so thoroughly unexpected was the discovery in Africa of a waterfall which could match, nay in many respects surpass, Niagara in wild beauty and imposing power. Now a railway passes over the Falls, and a place has grown up which bears the name of Livingstone.

The deafening roar of the water died away in the distance, and the party followed the forest paths from the territory of one tribe to that of the next. Steadfast as always, Livingstone met all danger and treachery with courage and contempt of death, a Titan among geographical explorers as well as among Christian missionaries. He drew the main

outlines of this southern part of Darkest Africa and laid down the course of the Zambesi on his map. For a year he had been an explorer rather than a missionary. But the dominating thought in his dream of the future was always that the end of geographical exploration was only the beginning of missionary enterprise.

At the first Portuguese station he left his Makololo men, promising to return and lead them back to their own villages. Then he travelled down the Zambesi to Quilimane on the sea. He had, therefore, crossed Africa from coast to coast, and was the first scientifically educated European to do so.

After fifteen years in Africa he had earned a right to go home. An English ship carried him to Mauritius, and at the end of 1856 he reached England. He was received everywhere with boundless enthusiasm, and never was an explorer fêted as he was. He travelled from town to town, always welcomed as a hero. He always spoke of the slave-trade and the responsibility that rested on the white men to rescue the blacks. Africa, lying forgotten and misty beneath its moving rain-belts, became at once the object of attention of all the educated world.

Detraction was not silent at the home-coming of the victor. The Missionary Society gave him to understand that he had not laboured sufficiently for the spread of the Gospel, and that he had been too much of an explorer and too little of a missionary. He therefore left the Society; and when, after a sojourn of more than a year at home, he returned to Africa, it was in the capacity of English Consul in Quilimane, and leader of an expedition for the exploration of the interior of Africa.

We have no time to accompany Livingstone on his six years' journeys in East Africa. Among the most important discoveries he made was that of the great Lake Nyassa, from the neighbourhood of which 19,000 slaves were carried annually to Zanzibar, to say nothing of the far greater numbers who died on the way to the coast. One day Livingstone went down to the mouth of the Zambesi to meet an English ship. On board were his wife and a small specially built steamer called the *Lady Nyassa*, designed for voyages on rivers and lakes. Shortly afterwards his wife fell ill and died, and was buried under the leafy branches of a bread-fruit tree. In spite of his grief he went on with his work as diligently as before, and when the time came for him to sail home, he thought of selling the *Lady Nyassa* to the Portuguese. But when he heard that the boat was to be used to transport slaves, he kept it, steered a course for Zanzibar, and then resolved to cross the Indian Ocean in the small open boat by the use of both sails and steam. This was one of Livingstone's most daring exploits, for the distance to Bombay was 2500 miles across the open sea, and in the beginning of January the south-west monsoon might be expected with its rough, stormy seas. He hoped, however, to reach Bombay before the monsoon broke, so with three white sailors and nine Africans, and only fourteen tons of coal, he steamed out of the harbour of Zanzibar, saw the coast of Africa fade away and the dreary waste of water close round him on all sides.

Two of the white sailors fell ill and were unfit for work, and the bold missionary had to depend almost entirely on himself. Ocean currents hindered the progress of the *Lady Nyassa*, and for twenty-five days she was becalmed, for the coal had to be used

sparingly, and when the sails hung limp from the mast there was nothing to be done but to exercise patience. Fortunately there was sufficient food and drinking water, and Livingstone was accustomed to opposition and useless waiting. He had to ride out two violent storms, and the *Lady Nyassa* was within a hair's breadth of turning broadside to the high seas. In view of the immense watery waste that still lay before him he meditated making for the Arabian coast, but as a favourable wind got up and the sailing was good he kept on his course. At length the coast of India rose up out of the sea, and after a voyage of six weeks the *Lady Nyassa* glided into the grand harbour of Bombay. The air was hazy and no one noticed the small boat, but when it was known that Livingstone was in the city, every one made haste to pay him homage.

In the year 1866 Livingstone was again in Africa. We find him at the mouth of the Rovuma, a river which enters the sea to the east of Lake Nyassa. He had thirty-seven servants, many of them from India, and one of his men, Musa, had been with him before. He crossed the country to Lake Nyassa, but when he wished to pass over to the eastern shore in native boats, he was stopped by the Arabs, who knew that he was the most formidable opponent of the slave-trade. He had no choice but to go round the lake on foot, and little by little he made contributions to human knowledge, drew maps, and made notes and collections. He came to districts he already knew, where black women were carried off by crocodiles on the bank of the Shiré River, where he had lost his wife, and where all the missionaries sent out on his recommendation had died of fever.

His staff of servants soon proved to be a worthless

lot. The Indians were dismissed, and few of the others could be depended on. The best were Susi and Chuma, who by their faithfulness gained a great reputation both in Africa and Europe. Musa, on the contrary, was a scoundrel. He heard from an Arab slave-dealer that all the country through which Livingstone was about to travel was inhabited by a war-like tribe, who had lately fallen upon a party of forty-four Arabs and killed all but the narrator himself. Musa and most of his comrades were so frightened that they ran away. On his arrival at Zanzibar, Musa informed the British Consul that Livingstone had been attacked and murdered and all his goods plundered. The false account was so cleverly concocted and so thoroughly rehearsed that Musa could not be convicted of deceit. Every one believed him, and the English newspapers contained whole columns of reminiscences of the deceased. Only one friend of Livingstone, who had accompanied him on one of his journeys and knew Musa, had any doubts. He went himself to Africa, followed Livingstone's trail, and learned from the natives that the missionary had never been attacked as reported, but that he was on his way to Lake Tanganyika.

The road thither was long and troublesome, and the great explorer suffered severe losses. Provisions ran short, and a hired porter ran away with the medicine chest. From this time Livingstone had no drugs to allay fever, and his health broke down. But he came to the southern extremity of Tanganyika, and the following year discovered Lake Bangweolo. He rowed out to the islands in the lake, and very much astonished the natives, who had never seen a white man before. Extensive swamps lay round the lake, and Livingstone believed that the southernmost

sources of the Nile must be looked for in this region. This problem of the watershed of the Nile so fascinated him that he tarried year after year in Africa; but he never succeeded in solving it, and never knew that the river running out of Bangweolo is a tributary of the Lualaba or Upper Congo.

Most of his men mutinied on the shore of Bangweolo. They complained of the hardships they endured and were tired of munching ears of maize, and demanded that their master should lead them to country where they could get sufficient food. Mild and gentle as always, Livingstone spoke to them kindly. He admitted that they were right, and confessed that he was himself tired of struggling on in want and hardship. They were so astonished at his gentleness that they begged to remain with him.

Livingstone was dangerously ill on this journey and had to be carried on a litter. There he lay unconscious and delirious with fever, and lost entirely his count of time. The troop moved again towards Tanganyika, and was to cross the lake in canoes to the Ujiji country on the eastern shore. If he could only get so far, he could rest there, and receive new supplies and letters from home.

Worn out and exhausted he at length reached Ujiji, a rendezvous for the Arab slave-dealers. But his fresh supplies had disappeared entirely. He wrote for more from the coast, and urged the Sultan of Zanzibar to see that nothing went astray. He wrote heaps of letters which never reached their destination. A packet of forty-two were sent off at one time, not one of which arrived, for at that time the tribes to the east of the lake were at war with one another.

Livingstone did not allow his courage to fail. No

difficulties were great enough to crush this man. With Susi and Chuma and a party of newly enlisted porters, he set out westwards across the lake, his aim being to visit the Manyuema country, through the outskirts of which flows the Lualaba. If Livingstone could prove in which direction this mighty river ran, whether to the Mediterranean or the Atlantic, he could then return home with a good conscience. He had determined in his own mind that he would not leave the Dark Continent until he had solved the problem, and for this he sacrificed his life without result. The canoes sped over the lake, and on the western shore he continued his journey on foot to the land of the Manyuemas. He marched on westwards. When the rainy season came on he lost several months, and when he set out again on his next march he had only three companions, two of them being the faithful Susi and Chuma. In the dark thickets of the tropical forests he wounded his feet, dragged himself over fallen trunks and decaying rubbish, and waded across swollen rivers; and among the crowns of the lofty trees and in the dense undergrowth lurked malaria, an invisible miasma. He fell ill again and had to rest a long time in his miserable hut, where he lay on his bed of grass reading his tattered Bible, or listening to the native's tales of combats with men and apes, for gorillas lived in the forests.

Thus year after year passed by, and not the faintest whisper from the noisy world reached his ears. The only thing that retained him was the Lualaba. Did its waters run in an inexhaustible stream to the western ocean, or did they flow gently through forests, swamps, and deserts to Egypt? If he could only answer that question, he would go by the nearest way to Zanzibar and thence home. He had heard nothing of his children and friends for years. The soil

of Africa held him prisoner in a network of forests and lianas.

In February 1871 he left Manyuema and came to Nyangwé on the bank of the Lualaba, one of the principal resorts of slave-dealers. The natives were hostile, believing that he was a slave-trader; and the slave-traders who knew him by sight hated him. He tried in vain to procure canoes for a voyage down the great river. He offered a chief, Dugumbé, a liberal reward if he would help him to prepare for this expedition. While Dugumbé was considering the offer, Livingstone witnessed an episode which surpassed in horror all that he had previously met with in Africa. It was a fine day in July on the bank of the Lualaba, and 1500 natives, mostly women, had flocked to market at a village on the bank. Livingstone was out for a stroll, when he saw two small cannon pointed at the crowd and fired. Many of the unfortunate people, doomed to death or the fetters of slavery, rushed to their canoes, but were met by a band of slave-hunters and surprised by a shower of arrows. Fifty canoes lay at the bank, but they were so closely packed that they could not be put out. The wounded shrieked and threw themselves on one another in wild despair. A number of black heads on the surface of the water showed that many swimmers were trying to reach an island about a mile away. The current was against them and their case was hopeless. Shot after shot was fired at them. Some sank quietly without a struggle, while others uttered cries of terror and raised their arms to heaven before they went down to the dark crystal halls of the crocodiles. Fugitives who succeeded in getting their canoes afloat forgot their paddles and had to paddle with their hands. Three canoes, the crews of which tried to rescue their unfortunate

friends, filled and sank, and all on board were drowned. The heads in the water became gradually fewer, and only a few men were still struggling for life when Dugumbé took pity on them and allowed twenty-one to be saved. One brave woman refused to receive help, preferring the mercy of the crocodiles to that of the slave-king. The Arabs themselves estimated the dead at 400.

This spectacle made Livingstone ill and depressed. The description of the scene which afterwards appeared in all the English journals awakened such a feeling of horror that a commission was appointed and sent out to Zanzibar to inquire into the slave-trade on the spot, and with the Sultan's help devise means of suppressing it. But we know that in Gordon's time the slave-trade still flourished in the Sudan, and several decades more passed before the power of the slave-dealers was broken. As for Livingstone, it was fortunate that he did not accompany Dugumbé, for the natives combined for defence, attacked the chiefs party and slew 200 of the slave-dealing rabble.

Thus the question of the Lualaba remained unsolved, but Livingstone began to suspect that his theory of the Nile sources was wrong. He heard a doubtful tale of the Lualaba bending off to the west, but he still hoped that it flowed northwards, and that therefore the ultimate source of the Nile was to be found among the feeders of Lake Bangweolo. When difficulties sprang up around him, his determination not to give in was only strengthened. But he could do nothing without a large and well-ordered caravan, and therefore he had to return to Ujiji, whither fresh supplies ought to have arrived from the coast. And amidst a thousand dangers and lurking treachery he

effected his return through the disturbed country. Half dead of fever and in great destitution he arrived at Ujiji in October.

There a fresh disappointment awaited him. His supplies had indeed come, but the Arabian scoundrel to whose care the goods had been consigned had sold them, including 2000 yards of cloth and several sacks of glass beads, the only current medium of exchange. The Arab coolly said that he thought the missionary was dead.

We read in Livingstone's journal that in his helplessness he felt like the man who went down to Jericho and fell among thieves. Five days after his arrival at Ujiji he writes as follows: "But when my spirits were at their lowest ebb, the good Samaritan was close at hand, for one morning Susi came running at the top of his speed and gasped out 'An Englishman! I see him!' and off he darted to meet him. The American flag at the head of a caravan told of the nationality of the stranger. Bales of goods, baths of tin, huge kettles, cooking pots, tents, etc., made me think 'This must be a luxurious traveller, and not one at his wits' end like me!'"

How Stanley found Livingstone

Now we must go back a little and turn to another story.

Henry Stanley was a young journalist, who in October happened to be in Madrid. He was on the staff of the great newspaper, the *New York Herald*, which was owned by the wealthy Gordon Bennett. One morning Stanley was awakened by his servant with a telegram containing only the words: "Come to

Paris on important business." Stanley travelled to Paris by the first train, and at once went to Bennett's hotel. Bennett asked him, "Where do you think Livingstone is?"

"I really do not know, sir."

"Do you think he is alive?"

"He may be, and he may not be."

"Well, I think he is alive," said Bennett, "and I am going to send you to find him."

"What!" cried Stanley. "Do you mean me to go to Central Africa?"

"Yes; I mean that you shall go and find him. The old man may be in want; take enough with you to help him, should he require it. Do what you think best—*but find Livingstone*."

In great surprise Stanley suggested that such a journey would be very expensive, but Bennett answered, "Draw a thousand pounds now; and when you have gone through that, draw another thousand, and when that is spent, draw another thousand, and when you have finished that, draw another thousand, and so on; *but find Livingstone*."

"Well," thought Stanley, "I will do my best, God helping me." And so he went off to Africa.

He had, however, been charged by his employer to fulfil other missions on the way. He made a journey up the Nile, visited Jerusalem, travelled to Trebizond and Teheran and right through Persia to Bushire, and consequently did not arrive at Zanzibar until the beginning of January, 1871.

Here he made thorough preparations. He had never been before in the Africa of the Blacks, but he was a clever, energetic man, with a genius for organisation. He bought cloth enough for a hundred men for two years, glass beads, brass wire and other goods in request among the natives. He bought saddles and tents, guns and cartridges, boats, medicine, tools, provisions and asses. Two English sailors volunteered for the expedition, and he took them into his service, but both died in the fever country. Black porters were engaged, and twenty men he called his soldiers carried guns. After he had crossed over from Zanzibar to the African mainland, the equipment of the expedition was completed at Bagamoyo, and Stanley made haste to get away before the rainy season commenced.

The great and well-found caravan of 192 men in all trooped westwards in five detachments. Stanley himself led the last detachment, and before them lay the wilderness, the interior of Africa with its dark recesses. At the first camping-ground tall maize was growing and manioc plants were cultivated in extensive fields. The latter is a plant with large root bulbs chiefly composed of starch, but also containing a poisonous milky juice which is deadly if the roots be eaten without preparation. When the sap has been removed by proper treatment, however, the roots are crushed into flour, from which a kind of bread is made. Round a swamp in the neighbourhood grew low fan-palms and acacias among luxuriant grass and reeds.

Next day they marched under ebony and calabash trees, from the shells of which the natives make vessels of various shapes, for while they are growing the fruits can be forced by outward pressure into

almost any desired form. Pheasants and quails, water-hens and pigeons flew up screaming when the black porters tramped along the path, winding in single file through the grass as high as a man. Hippopotami lay snorting unconcernedly in a stream that was crossed.

Then came the forerunners of the rainy season, splashing and pelting over the country, and pouring showers pattered on the grass. Both the horses of the caravan succumbed, one or two fellows who found Bagamoyo more comfortable ran away, and a dozen porters fell ill of fever. Stanley was still full of energy, and beat the reveille in the morning himself with an iron ladle on an empty tin. On they went through dense jungle. Now a gang of slaves toils along, their chains clanking at every weary step. Here again is a river, and there the road runs up a hill. Here the country is barren, but soon after crops wave again round villages. Maize fields in a valley are agitated like the swell of the sea, and gentle breezes rustle through rain-bedewed sugar-cane. Bananas hang down like golden cucumbers, and in barren places tamarisks and mimosas perfume the air. Sometimes a halt is made in villages of well-built grass huts.

Over swampy grasslands soaked by the continuous rains Stanley led his troop deeper and deeper into Africa. After having lasted forty days, the rainy season came to an end on the last day of April. The men marched through a forest of fine Palmyra palms, a tree which grows over almost all tropical Africa, in India, and on the Sunda Islands, and which is extolled in an old Indian poem because its fruits, leaves, and wood can be applied to eight hundred and one various uses. Afterwards the country became

more hilly, and to the west one ridge and crest rose behind another. The porters and soldiers were glad to leave the damp coast-land behind and get into drier country, but the ridges made travelling harder. They encamped in villages of beehive-shaped huts covered with bamboos and bast, and surrounded by mud walls. Some tracts were so barren that only cactus, thistles, and thorny bushes could find support in the dry soil, and near a small lake were seen the tracks of wild animals, buffaloes, zebras, giraffes, wild boars, and antelopes, which came there to drink.

Then the route ran through thickets of tamarisk, and under a canopy of monkey bread-fruit trees, till eventually at a village Stanley fell in with a large Arab caravan, with which he travelled through the dreaded warlike land of Ugogo. When they set out together the whole party numbered 400 men, who marched in Indian file along the narrow paths.

"How are you, White Man?" called out a man at Ugogo in a thundering voice when Stanley arrived, and when he had set up his quarters in the chief's village the natives flocked around to gaze at the first white man they had ever seen. They were friendly and offered milk, honey, beans, maize, nuts, and water-melons in exchange for cloth and glass beads, but also demanded a heavy toll from the caravan for the privilege of passing through their country.

The caravan proceeded through the avenues of the jungle, from time immemorial frequented by elephants and rhinoceroses. In one district the huts were of the same form as Kirghiz tents, and in another rocks rose up in the forest like ruins of a fairy palace. The porters were not always easy to

manage, and on some occasions were refractory. But if they were given a young ox to feast on, they quickly calmed down and sat round the fire while strips of fresh meat frizzled over the embers.

Now it was only one day's march to Tabora, the principal village in Unyamwezi, and the chief settlement of the Arabs in East Africa. The caravan set out with loud blasts of trumpets and horns, and on arrival discharged a salvo of guns, and Arabs in white dresses and turbans came out to welcome the explorer. Here Stanley found all his caravans, and the Arabs showed him every attention. They regaled him with wheaten loaves, chickens and rice, and presented him with five fat oxen, eight sheep, and ten goats. Round about they had cultivated ground and large herds, and it was difficult to believe that the stately well-grown men were base slave-traders.

Just at this time the country of Unyamwezi was disturbed by a war which was raging with Mirambo, a great chief in the north-west, and consequently when Stanley left Tabora, now with only fifty-four men, he had to make a detour to the south to avoid the seat of war. At every step he took, his excitement and uncertainty increased. Where was this wonderful Livingstone, whom all the world talked about? Was he dead long ago, or was he still wandering about the forests as he had done for nearly thirty years?

A bale or two of cloth had frequently to be left with a chief as toll. In return one chief sent provisions to last the whole caravan for four days, and came himself to Stanley's tent with a troop of black warriors. Here they were invited to sit down, and they remained silent for a while, closely examining the white man; then they touched his clothes, said

something to one another, and burst out into unrestrained laughter. Then they must see the rifles and medicine chest. Stanley took out a bottle of ammonia, and told them that it was good for headaches and snake-bites. His black majesty at once complained of headache and wanted to try the bottle. Stanley held it under the chiefs nose, and of course it was so strong that he fell backwards, pulling a face. His warriors roared with laughter, clapped their hands, snapped their fingers, pinched one another, and behaved like clowns. When the king had recovered, he said, as the tears ran from his eyes, that he was quite cured and needed no more of the strong remedy.

A river ran among hills, through a magnificent country abounding in game, and lotus leaves floated on the smooth water. The sun sinks and the moon soars above the mimosa trees, the river shines like a silver mirror, antelopes are on the watch for the dangers of the night. Within the enclosure of the camp the black men sit gnawing at the bones of a newly-shot zebra. But when it is time to set out again from the comfortable camp, the porters would rather remain where they are and enjoy themselves, and when the horn sounds they go sullenly and slowly to their loads. After half an hour's march they halt, throw down their loads, and begin to whisper in threatening groups. Two insubordinate ruffians lie in wait with their rifles aimed at Stanley, who at once raises his gun and threatens to shoot them on the spot if they do not immediately drop their rifles. The mutiny ends without bloodshed, and the men promise again to go on steadily to Lake Tanganyika, according to their agreement.

Now Stanley is in a forest tract where cattle of all

kinds are pestered by the tsetse fly, and where the small honey bird flies busily about among the trees. It is like the common grey sparrow, but somewhat larger, and has a yellow spot on each shoulder. It receives its name from its habit of flying in short flights just in front of the natives to guide them to the nests of wild bees, in order to get its share of the honey. When a man follows it, he must not make a noise to frighten it, but only whistle gently, that the bird may know that its intention is understood. As it comes nearer to the wild bees' nest, it takes shorter flights, and when it is come to the spot, it sits on a branch and waits. Stanley says that the honey bird is a great friend of the natives, and that they follow it at once when it calls them.

Stanley now turned northwards to a river which flows into Lake Tanganyika. The caravan was carried over in small frail boats, and the asses which still survived had to swim. When the foremost of them came to the middle of the river he was seen to stop a moment, apparently struggling, and then he went down, a whirlpool forming above his head. He had been seized by a crocodile.

A caravan which came from Ujiji reported that there was a white man in that country. "Hurrah, it is Livingstone! It must be Livingstone!" thought Stanley. His eagerness and zeal were stimulated to the uttermost, and he offered his porters extra pay to induce them to make longer marches. Eventually the last camp before Tanganyika was reached in safety, and here Stanley took out a new suit of clothes, had his helmet chalked, and made himself spruce, for the reports of a white man's presence at the lake became more definite.

The 28th of October, 1871, was a beautiful day, and Stanley and his men marched for six hours south-westwards. The path ran through dense beds of bamboo, the glittering, silvery surface of Tanganyika was seen from a height, and blue, hazy mountains appeared afar off on the western shore. The whole caravan raised shouts of delight. At the last ridge the village of Ujiji came into sight, with its huts and palms and large canoes on the beach. Stanley gazed at it with eager eyes. Where was the white man's hut? Was Livingstone still alive, or was he a mere dream figure which vanished when approached?

The villagers come streaming out to meet the caravan, and there is a deafening noise of greeting, enquiries, and shouts.

From the midst of the crowd a black man in a white shirt and a turban calls out, "Good morning, sir!"

"Who the mischief are you?" asks Stanley.

"I am Susi, Dr. Livingstone's servant," replied the man.

"What! Is Dr. Livingstone here?"

"Yes, sir."

"In this village? Run at once and tell the Doctor I am coming."

When Livingstone heard the news he came out from his verandah and went into the courtyard, where all the Arabs of Ujiji had collected. Stanley made his way through the crush, and saw a small man before him, grey and pale, dressed in a bluish cap with a faded gold band round it, a red-sleeved waistcoat, and grey trousers. Stanley would have run up to

embrace him, but he felt ashamed in the presence of the crowd, so he simply took off his hat and said, "Dr. Livingstone, I presume?"

"Yes," said he, with a kind smile, lifting his cap slightly.

"I thank God, Doctor, I have been permitted to see you."

"I feel thankful that I am here to welcome you."

They sat down on the verandah, and all the astonished natives stood round, looking on. The missionary related his experiences in the heart of Africa, and then Stanley gave him the general news of the world, for of course he knew nothing of what had taken place for years past. Africa had been separated from Asia by the Suez Canal. The Pacific Railway through North America had been completed. Prussia had taken Schleswig-Holstein from Denmark, the German armies were besieging Paris, and Napoleon the Third was a prisoner. France was bleeding from wounds which would never be healed. What news for a man who had just come out of the forests of Manyuema!

Evening drew on and still they sat talking. The shades of night spread their curtain over the palms, and darkness fell over the mountains where Stanley had marched, still in uncertainty, on this remarkable day. A heavy surf beat on the shore of Lake Tanganyika. The night had travelled far over Africa before at last they went to rest.

The two men were four months together. They hired

two large canoes and rowed to the northern end of Tanganyika, and ascertained that the lake had no outlet there. Only two years later Lieutenant Cameron succeeded in finding the outlet of Tanganyika, the Lukuga, which discharges into the Lualaba; and when he found that Nyangwé on the Lualaba lies 160 feet lower than the Nile where it flows out of the Albert Nyanza, he had proof that the Lualaba could not belong to the Nile, and that Livingstone's idea that the farthest sources of the Nile must be looked for at Lake Bangweolo was only an idle dream. The Lualaba therefore must make its way to the Atlantic, and in fact this river is nothing but the Upper Congo. Lieutenant Cameron was also the first European to cross Central Africa from east to west.

On the shores of the great lake the two travellers beheld a series of beautiful landscapes. There lay villages and fishing-stations in the shade of palms and mimosas, and round the villages grew maize and durra, manioc, yams, and sweet potatoes. In the glens round the lake grew tall trees from which the natives dig out their canoes. Baboons roared in the forests and dwelt in the hollow trunks. Elephants and rhinoceroses, giraffes and zebras, hippopotami and wild boars, buffaloes and antelopes occurred in large numbers, and the northern extremity of the lake swarmed with crocodiles. Sometimes the strangers were inhospitably received when they landed, and once when they were off their guard the natives plundered their canoes. Among other things they took a case of cartridges and bullets, and the travellers thought it would be bad for the thieves if the case exploded at some camp fire.

It soon became time, however, for Stanley to return

to Zanzibar and inform the world through the press that Livingstone was alive. They went to Tabora, for Livingstone expected fresh supplies, and in addition Stanley gave him forty men's loads of cloth, glass beads and brass-wire, a canvas boat, a waterproof tent, two breech-loaders and other weapons, ammunition, tools, and cooking utensils. All these things were invaluable to Livingstone, who was determined to remain in Africa at any cost until his task was accomplished.

The day of parting came—March 14, 1872. Stanley was very depressed, believing that the parting was for ever. Livingstone went with him a little way and then bade him a hearty farewell, and while Stanley made haste towards the coast the Doctor turned back to Tabora and was again alone in the immense wilds of Africa. But he had still his faithful servants Susi and Chuma with him.

The Death of Livingstone

At Zanzibar Stanley was to engage a troop of stout, reliable porters and send them to Tabora, where Livingstone was to await their arrival. He had entrusted his journals, letters, and maps to Stanley's care, and that was fortunate, for when Stanley first arrived in England his narrative was doubted, and he was coldly received. Subsequently a revulsion of feeling set in, and it was generally recognised that he had performed a brilliant feat.

In due time the new supply of porters turned up at Tabora, fifty-seven men. They were excellent and trustworthy, and in a letter to Stanley, Livingstone says that he did not know how to thank him sufficiently for this new service. At the end of August

the indefatigable Doctor set off on his last journey. He made for Tanganyika, and on New Year's Day, 1873, he was near Lake Bangweolo. It rained harder than ever, pouring down as if the flood-gates of heaven were opened. The caravan struggled slowly on through the wet, sometimes marching for hours through sheets of water, where only the eddies of the current distinguished the river from the adjoining swamps and flooded lands. The natives were unfriendly, refused to supply provisions, and led the strangers astray. Livingstone had never had such a difficult journey.

His plan was to go round the south of Lake Bangweolo to the Luapula, which flows out of the lake and runs to the Lualaba. Then he meant to follow the water in its course to the north, and ascertain its direction and destination.

But whichever way the mysterious river made its way to the ocean, the journey was long, and Livingstone's days were numbered. He had long been ill, and his condition was aggravated by the hardships of the journey. His body was worn out, and undermined by constant fever and insufficient nourishment. Yet he did not abandon hope of success and conscientiously wrote down his observations, and no Sunday passed without a service with his people.

Month after month he dragged himself along, but his strength was no longer what it had been. On April 21 he wrote with trembling hand only the words, "Tried to ride, but was forced to lie down and they carried me back to vil. exhausted." A comfortable litter was made, and Susi and Chuma were always with him. Livingstone asked the chief of the village for a guide

for the next day, and the chief answered, "Stay as long as you wish, and when you want guides to Kalunganjovu's you shall have them."

The day after he was carried for two hours through marshy, grassy flats. During the next four days he was unable to write a line in his diary, but was carried by short stages from village to village along the southern shore of Lake Bangweolo. On April 27 he wrote in his diary, "Knocked up quite, and remain —recover—sent to buy milch goats. We are on the banks of the Molilamo." With these words his diary, which he had kept for thirty years, concluded. Milch goats were not to be had, but the chief of the place sent a present of food.

Four days later the journey was resumed. The chief provided canoes for crossing the Molilamo, a stream which flows into the lake. The invalid was transferred from the litter to a canoe, and ferried over the swollen stream. On the farther bank Susi went on in advance to the village of Chitambo to get a hut ready. The other men followed slowly with the litter. Time after time the sick man begged his men to put the litter down on the ground and let him rest. A drowsiness seemed to come over him which alarmed his servants. At a bend of the path he begged them to stop again, for he could go no farther. But after an hour they went on to the village. Leaning on their bows, the natives flocked round the litter on which lay the man whose fame and reputation had reached them in previous years. A hut was made ready, and a bed of grass and sticks was set up against the wall, while his boxes were deposited along the other walls, and a large chest served as a table. A fire was lighted outside the entrance, and the boy Majwara kept watch.

Early on April 20 the chief Chitambo came to pay a visit, but Livingstone was too weak to talk to him. The day passed, and at night the men sat round their fires and went to sleep when all was quiet. About eleven o'clock Susi was told to go to his master. Loud shouts were heard in the distance, and Livingstone asked Susi if it was their men who were making the noise. As the men were quiet in their huts, Susi replied, "I can hear from the cries that the people are scaring away a buffalo from their durra fields." A few minutes later he asked, "Is this the Luapula?" "No," answered Susi, "we are in Chitambo's village." Then again, "How many days is it to the Luapula?" "I think it is three days, master," answered Susi. Shortly after he murmured, "O dear, dear!" and dozed off again.

At midnight Majwara came again to Susi's hut and called him to the sick man. Livingstone wished to take some medicine, and Susi helped him, and then he said, "All right, you can go now."

About four o'clock on the morning of May 1 Majwara went to Susi again and said, "Come to Bwana, I am afraid; I don't know if he is alive." Susi waked Chuma and some of the other men, and they went to Livingstone's hut. Their master was kneeling beside the bed, leaning forward with his head buried in his hands. They had often seen him at prayer, and now drew back in reverential silence. But they felt ill at ease, for he did not move; and on going nearer they could not hear him breathe. One of them touched his cheek and found it was cold. The apostle of Africa was dead.

In deep sorrow his servants laid him on the bed and went out into the damp night air to consult together. The cocks of the village had just begun to crow, and

a new day was dawning over Africa. Then they went in to open his boxes and pack up everything. All the men were present so that all might be jointly responsible that nothing was lost. They carefully placed his diaries and letters, his Bible and instruments, in tin boxes so that they might be safe from wet and from white ants, which are very destructive.

The men knew that they would have great difficulties to encounter. They knew that the natives had a horror of the dead, believing that spirits in the dark land of the departed thought of nothing but revenge and mischief. Therefore they perform ceremonies to propitiate departed spirits and dissuade them from plaguing the living with war, famine, or sickness.

Susi and Chuma, who had been with their master for seven years, felt their responsibility. They spoke with the men whom Stanley had sent from the coast and asked their opinion. They answered, "You are old men in travelling and hardships; you must act as our chiefs, and we will promise to obey whatever you order us to do." Susi and Chuma accordingly took the command, and carried out an exploit which is unique in all the history of exploration.

First of all a hut was erected at some little distance from the village, and in this they placed the body to prepare it for the long journey. The heart and viscera were removed, placed in a tin box, and reverently buried in the ground, one of Livingstone's Christian servants reading the Funeral Service. The body was then filled with salt and exposed for fourteen days to the sun in order to dry and thus be preserved from decay. The legs were bent back to make the package

shorter, and the body was sewed up tightly in cotton. A cylinder of bark was cut from a tree and in this the body was enclosed. Round the whole a piece of canvas was bound, and the package was tied to a pole for convenience of carrying. On a tree near, Livingstone's name was cut and the date of his death, and Chitambo was asked to have the grass rooted up round the tree so that it should not at any time be destroyed by a bush fire.

When all was ready two men lifted the precious burden from the ground, the others took their loads on their backs, and a journey was commenced which was to last nine months, a funeral procession the like of which the world had never seen before. The route ran sometimes through friendly, sometimes through hostile tribes. Once they had to fight in order to force their way through. News of the great missionary's death had preceded them. Like a grass fire on the prairie it spread over Africa from coast to coast, creeping silently through the forests. In some districts the people ran away from fear of the sad procession, while in others they came up to see it. Bread-fruit trees stretched their boughs over the road like a canopy over a victor returning home, and palms, the emblems of peace and resurrection, stood as sentinels by the way, which was left clear by the wild animals of the forest. And mile after mile the party marched eastwards under the green arches.

In Tabora they met an English expedition sent out too late for the relief of Livingstone, and its members listened with emotion to the tale of the men. They wished to bury the corpse at Tabora, but Livingstone's servants would not hear of it. A few days later they met with serious opposition. A tribe refused to let them pass with a corpse. Then they

made up a load resembling that containing the body, and gave out that they had decided to return to Tabora to bury their master there. Some of the men marched back with the false package, which they took to pieces at night and scattered among the bush. Then they returned to their comrades, who meanwhile had altered the real package so as to look like a bale of cloth. The natives were then satisfied and let them move on unmolested.

In February, 1874, they arrived at Bagamoyo, and the remains were carried in a cruiser to Zanzibar and afterwards conveyed to England. In London there was a question whether the body was really Livingstone's, but his broken and reunited arm, which was crushed by the lion at Mabotsa, set all doubts at rest. He was interred in Westminster Abbey in the middle of the nave. The temple of honour was filled to overflowing, and among those who bore the pall was Henry Stanley. The grave was covered with a black stone slab, in which was cut the following inscription:—

"Brought by faithful hands
Over land and sea,
Here Rests
DAVID LIVINGSTONE,
Missionary, Traveller, Philanthropist.
Born March 19, 1813,
Blantyre, Lanarkshire.
Died May 4th, 1873,
At Chitambo's Village, Ilala.
For thirty years his life was spent
in an unwearied effort to evangelise
the native races, to explore the
undiscovered secrets,
And abolish the desolating slave-trade

of Central Africa...."

The memory of the "Wise Heart" or the "Helper of Men," as they called Livingstone, is still handed down from father to son among the natives of Africa, and they are glad that his heart remains in African soil under the tree in Chitambo's village. His dream of finding the sources of the Nile, and of throwing light on the destination of the Lualaba, was not fulfilled, but he discovered Ngami and Nyassa and other lakes, the Victoria Falls and the upper course of the Zambesi, and mapped an enormous extent of unknown country.

Stanley's Great Journey

In the autumn of 1874 Stanley was back in Zanzibar to try his fortune once more in Darkest Africa. He organised a caravan of three hundred porters, provided himself with cloth, beads, brass-wire, arms, boats which could be taken to pieces, tents, and everything else necessary for a journey of several years.

He made first for the Victoria Nyanza, and circumnavigated the whole lake. He visited Uganda, came again to Ujiji, where Livingstone's hut had long been razed to the ground, and sailed all round Lake Tanganyika.

Two years after he started he was at Nyangwé on the Lualaba. Livingstone and Cameron had been there before, and we can imagine Stanley's feelings when he at last found himself at this, the most westerly point ever reached by a European from the coast of the Indian Ocean. Behind him lay the known country and the great lakes; before him lay a land as large as

Europe, completely unknown and appearing as a blank on maps. Travellers had come to its outskirts from all sides, but none knew what the interior was like. It was not even known whither the Lualaba ran. Livingstone had vainly questioned the natives and Arabs about it, and vainly Stanley also tried to obtain information. At Nyangwé the Arab slave-traders held their most western market. Thither corn, fruit, and vegetables were brought for sale; there were sold animals, fish, grass mats, brass-wire, bows, arrows, and spears; and thither were brought ivory and slaves from the interior. But though routes from all directions met at Nyangwé, the Arabs were as ignorant of the country as any one.

The black continent, "Darkest Africa," lay before Stanley. He was a bold man, to whom difficulties were nothing. He had a will of iron. All opposition, all obstacles placed in his way, must go down before him. He had determined not to return eastwards, whence he had come, but to march straight westwards to the Atlantic coast, or die in the attempt. Accordingly, early on the morning of November 5, 1876, Stanley left Nyangwé in company with the rich and powerful Arab chief, Tippu Tib, and directed his way northwards towards the great forest. Tippu Tib's party consisted of 700 men, women, and children, while Stanley had 154 followers armed with rifles, revolvers, and axes. "Bismillah—in the name of God!" cried the Mohammedan leaders of the company, as they took the first step on the dangerous road.

The huge caravan, an interminable file of black men, entered the forest. There majestic trees stood like pillars in a colonnade; there palms struggled for room with wild vines and canes; there flourished

ferns, spear-grass, and reeds, and there bushes in tropical profusion formed impenetrable brushwood; while through the whole was entangled a network of climbing plants, which ran up the trunks and hung down from the branches. Everything was damp and wet. Dew dropped from all the branches and leaves in a continuous trickle. The air was close and sultry, and heavy with the odour of plants and mould. It was deadly still, and seldom was the slightest breeze perceptible; storms might rage above the tree-tops, but no wind reached the ground, sheltered in the dimness of the undergrowth.

The men struggle along over the slippery ground. Balancing their loads on their heads with their hands, they stoop under boughs, push saplings aside with their elbows, thrust their feet firmly into the mud in order not to slip. Those who are clothed have their clothes torn, while the naked black men graze their skins. Very slowly the caravan forces its way through the forest, and a passage has frequently to be cut for those who carry the sections of the boats.

All who, after Stanley, have travelled through the great primeval forest in the heart of Africa have likewise described its suffocating hot-house air, the peaceful silence, only broken by the cries of monkeys and parrots, its deep, depressing gloom. If the journey is of long duration men get wearied, experiencing a feeling of confinement, and long for air, freedom, sun, and wind. It is like going through a tunnel, no country being visible on either side. The illumination is uniform, without shadows, without gleams, and the perpetual gloom, only interrupted by pitch-dark night, is exceedingly wearisome. Like polar explorers in the long winter night, the traveller longs for the sun and the return of light.

The party travelled northwards at some distance east of the Lualaba. Stanley climbed up a tree which grew somewhat apart on a hillock. Here he found himself above the tree-tops, and saw the sunlit surface of the primeval forest of closely growing trees below him. A continuous sea of boughs and foliage fell like a swell down to the bank of the Lualaba. Up here there was a breeze and the leaves fluttered in the wind; but down below reigned darkness and silence and the exuberant life of the tropics.

Even for such a man as Stanley this primeval forest was a hard nut to crack. Sickness, weariness, and insubordination prevailed in his troop. The great Tippu Tib considered it impossible to advance through such a country, and wished to turn back with all his black rabble, but after much hesitation he was at last persuaded to accompany Stanley for twenty days longer. So on they went once more, and after innumerable difficulties came again to the bank of the Lualaba.

The huge volumes of water glided along silently and majestically. Brown and thick with decaying vegetation, the Lualaba flowed between dense woods to the unknown region inhabited by negro tribes never heard of by Europeans, and where no white man had ever set his foot. Here Stanley decided to leave the terrible forest and to make use of the waterway of the Lualaba. There were the boats in sections, and a whole fleet of canoes could soon be made from the splendid trees growing at hand. The whole caravan was accordingly assembled, and Stanley explained his purpose. At first the men grumbled loudly, but Stanley declared that he would make the voyage even if no one went with him but Frank Pocock, the only survivor of the three white

men who had started with him from Zanzibar. He turned to his boat's crew and called out, "You have followed me and sailed round the great lakes with me. Shall I and my white brother go alone? Speak and show me those who dare follow me!" On this a few stepped forward, and then a few more, and in the end thirty-eight men declared themselves willing to take part in the voyage.

At this juncture many canoes full of natives were observed at the opposite side of the river, so Stanley and Tippu Tib and some other Arabs entered the boat and rowed up to a small island in mid-stream.

Here the black warriors were in swarms, and thirty canoes lay at the water's edge. At a safe distance, Stanley's interpreter called out that the white man only wished to see their country, that nothing belonging to them should be touched, and that they themselves should not be disturbed. They answered that if the white man would row out to the island in the morning with ten servants, their own chief would meet him with ten men, and would enter into blood-brotherhood with him. After that the strangers might cross the river and visit their villages.

Suspecting treachery, however, Stanley sent twenty armed men by night to the island to hide themselves in the brushwood. Then in the morning Pocock and ten men rowed out to the meeting-place, near which Stanley waited in his boat. A swarm of canoes put out from the western bank, and when they came to the island the rowers raised their wild war-whoop, *Ooh-hu! Ooh-hu-hu!* and rushed ashore with bows bent and raised spears. Then Stanley's twenty men came out of their hiding-place, the fight was short, and the savages dashed headlong into their boats and

rowed away for their lives.

The next morning, with thirty men on board his boat, Stanley began his journey down the river, while Tippu Tib and Pocock marched with all the rest of the troop along the bank. The natives had retired, but their cry of *Ooh-hu-hu!* was still heard in the distance. On an island between the main river and a tributary Stanley's party landed to wait for the caravan and help it over the affluent. In the meantime Stanley made a short excursion up the tributary, the water of which was inky-black owing to the dark tree roots which wound about its bottom. On his return he found the camp island surrounded by hostile canoes and heard random shots, but when his boat drew near, the savages were frightened and rowed away.

At length Tippu Tib straggled up with his party, and the journey could be continued. The boat was rowed near the bank, and the two divisions were kept in touch with each other by means of drums. All the villages they came to were deserted, but the natives were evidently keeping a close watch on these wonderful strangers, for one day when some of Stanley's men were out scouting on two captured canoes, they were attacked, and when they tried to escape they came among eddies and rapids, where their boats capsized and four rifles were lost. The men climbed up and sat astride the upturned canoes until they were rescued by their comrades.

Then the expedition went on again. The river was usually half a mile broad or more, and frequently divided by long rows of islands and holms. The large village of Ikondu consisted of cage-like reed huts built in two long rows. All the inhabitants had fled,

but pitchers full of wine were suspended from the palms, melons and bananas emitted their fragrance, and there was plenty of manioc plantations, ground-nuts, and sugar-cane. Near the place was found a large old canoe, cracked, leaky, and dilapidated, but it was patched up, put in the river, and used as a hospital. Smallpox and dysentery raged in the caravan, and two or three corpses were thrown daily into the river.

Once, as the small flotilla was rowing quietly along not far from the bank, a man in the hospital canoe cried out. He had been hit in the chest by a poisoned barb, and this was followed by a whole shower of arrows. The boats were rowed out from the dangerous bank, and a camp was afterwards pitched on an old market-place. The usual fence was set up round the tents, and sentinels were posted in the bush. Then were heard shots, cries, and noise. The watchman ran in calling out, "Look out, they are coming," and immediately arrows and javelins rattled against the stockade, and the savages rushed on, singing their dreadful war-songs. But their arrows and javelins were little use against powder and ball, and they soon had to retire. They were reinforced, however, and returned again and again to the attack, and did not desist till the fight had lasted two hours and twilight had come on.

After other combats, Stanley and Tippu Tib came to a country on the western bank densely peopled with hostile natives, where they had to fight again. The savages were repulsed, and rowed out to a long island, where they moored their canoes by ropes fastened round posts. They would certainly renew the attack next day. But this time they were to be thoroughly checkmated. Rain pelted down on the

river, the night was pitch dark, and there was a fresh breeze. Stanley rowed to the island, and his boat stole silently and cautiously under the high tree-covered bank. He cut the ropes of every canoe he got hold of, and in a short time thirty canoes were sent adrift down the river, many of them being caught by boatmen posted farther down stream. Before dawn the men were back at the camp with their looted boats.

The savages, who lay crouching in their grass hovels on the island, must certainly have felt foolish in the morning when they found that they had lost their canoes and were left helpless. Then an interpreter rowed out to them to put before them the conditions exacted by the white man. They had treacherously attacked his troop, killing four and wounding thirteen. Now they must furnish provisions, and then they would be paid for the captured canoes and peace would be established.

It was important that the expedition should have a few days' rest at this place, for Tippu Tib had had enough, and refused to advance a step farther down the river with its warlike natives. Accordingly, he was to turn back with his black retinue, while Stanley was to continue the journey with a selected party, many of whom had their wives and children with them. The troop consisted of a hundred and fifty souls. Provisions were collected for twenty days. The canoes were fastened together in pairs by poles, that they might not capsize, and the flotilla consisted of twenty-three boats.

It was one of the last days in December. A thick mist hung over the river and the nearest palms were scarcely visible, but a breeze sprang up and thinned

the haze. Then the trumpets and drums sounded the signal for starting, and Stanley gave the order to get into the boats. The parting song of the sons of Unyamwezi was answered by Tippu Tib's returning troop, and the flotilla of canoes glided down the dark river towards unknown lands and destiny.

Stanley believed that this mighty river, which he named after Livingstone, was none other than the Congo, the mouth of which had been known for more than four hundred years; but he did not reject the possibility that it might also unite with the Nile or be connected with the Niger far away to the north-west. The journey which was now to solve this problem will be famous for all time for its boldness and daring, for the dangers overcome and adventures experienced, and is quite comparable with the boat journeys of the Spaniards who discovered the Amazons and Mississippi rivers in America.

Fourteen villages lie buried in the dense bush, and Stanley's flotilla makes for the bank to encamp for the first time after parting from Tippu Tib. Here the natives are friendly, but there is trouble a little farther on, where the woods echo with the noise of war-drums and the savages are drawn up with shield and spear. The drum signals are repeated from village to village, from the one bank to the other. Canoes are manned and put out from both banks and Stanley's flotilla is surrounded. The interpreters call out "Peace! Peace!" but the savages answer peremptorily, "Turn back or fight." Consultations and negotiations are held, while the river sweeps down the whole assemblage of friends and foes. More villages peep out from the trees where dwell enemies of the attacking savages, so the latter dip their oars in the water and row back without coming to blows.

But soon there was a different scene. Javelins were thrown from other canoes and the dreadful poisoned arrows were discharged, so the death-dealing European firearms had to be used in self-defence. On this occasion Stanley's men succeeded in capturing a number of shields, of which indeed they had need.

Again the war-drum is heard, just as the flotilla is passing a small island. Stanley orders his boats to keep in the middle of the river ready for action. Swarms of canoes shoot out from the bank like wild ducks, and the black warriors beat their spears against their shields. The interpreter gets up in the bow and shouts out "Peace! Take care or we strike!" Then the savages hesitate, and retire quietly under promontories and overhanging wooded banks. By the single word "Peace!" the interpreter could often check parties of warriors, but others answered the offer of peace with a scornful laugh, and their showers of arrows and assegais had to be met with a volley of rifle bullets.



PLATE XXX. THE FIGHT ON THE CONGO.
From Stanley's *Through the Dark Continent.*

The New Year (1877) had already come, when a friendly tribe warned the travellers of dangerous falls and rapids, the roar of which they would shortly hear. The flotilla glided along the right bank, and all listened for the expected thunder. Suddenly savages appeared on the bank and hurled their assegais; then the war-drums were heard again, and a large number of long canoes approached (Plate XXX.). The warriors had painted one half of their bodies white and the other red, with broad black stripes, and looked hideous. Their howls and horn blasts betokened a serious attack. By this time Stanley's boats were out in the middle of the stream in order of battle, with the shields placed along the gunwales to protect the non-combatants. A canoe 80 feet long rowed straight for Stanley's boat, but was received by a rattling volley. Then it was Stanley's turn to attack, for the great canoe could not turn in time. Warriors and oarsmen jumped overboard to save themselves

by swimming to land, and as the other boats vanished the expedition could go on towards the falls.

Now was heard the roar of the water as it tumbled in wild commotion over the barriers in its bed. The natives thought that this was just the place to catch the strangers, and Stanley had to fight his way step by step, sometimes on land and sometimes on the river. In quiet water between the various falls the men could row, but in other places paths had to be cut through the brushwood on the bank and the canoes hauled over land. Often they had to fight from tree to tree. Once the savages tried to surround Stanley's whole party in a large net, and lost eight of their own men for their trouble. These captives were tattooed on the forehead and had their front teeth filed to a point. Like all the other people in the country, they were cannibals, and were eager for human flesh.

One day at the end of January Stanley's boats crossed the equator, and the great river turned more and more towards the west, so that it evidently could not belong to the Nile. Here the party passed the seventh and last fall, where the brown water hurled itself in mad fury over the barrier. Thus the series of cascades afterwards known as the Stanley Falls was discovered and passed.

Below the falls the river expands, sometimes to as much as two miles in breadth. The opposite bank could hardly be seen, and the boats came into a labyrinth of channels between islands. The rowers sang to the swing of their oars, and a sharp look-out had always to be kept. Sometimes canoes followed them, and occasionally ventured to attack. Wild

warriors were seen with loathsome features, and red and grey parrots' feathers on their heads, and bangles of ivory round their arms.

In one village was found a temple with a round roof supported on thirty-three elephants' tusks. In the middle was set up an idol carved in wood and painted red, with black eyes, hair, and beard. Knives, spears, and battle-axes were wrought with great skill, and were ornamented with bands of copper, iron, and bone. Among the refuse heaps were seen remains of horrible feasts, and human skulls were set up on posts round the huts.

Interminable forests grew on the banks and islands, with the many-rooted mangrove-tree, tall, snake-like canes with drooping tufts of leaves, the dragon's-blood tree, the india-rubber, and many others.

Danger and treachery lurked behind every promontory, and the men had to look out for currents, falls, rapids, and whirlpools. Hippopotami and crocodiles were plentiful. But the savages were the worst danger. Stanley and his men were worn out with running the gauntlet month after month.

At the village of Rubunga, where the natives were friendly, Stanley heard for the first time that the river actually was the Congo. Here the traveller was able to replenish his stock of provisions, and when the drums of Rubunga were sounded it was not for battle but to summon the inhabitants to market, and from the surrounding villages the people came to offer for sale fish, snails, oysters, dried dog-flesh, goats, bananas, meal, and bread. As a rule, however, no trust could be placed in the natives. In their hideous tattooing, with strings of human teeth round their necks and their own teeth filed to a point like a

wolf's, with a small belt of grass round their loins and spears and bows in their hands, they did not inspire confidence, and frequently the boats had barely put out from the bank where the people seemed friendly before the natives manned their canoes and pursued them. In this region they were armed with muskets procured from the coast. Once Stanley's small flotilla was surrounded by sixty-three canoes, and there was a hard fight with firearms on both sides. In the foremost canoe stood a young chief, handsome, calm, and dignified, directing the attack. He wore a head-covering and a mantle of goatskin, and on his arms, legs, and neck he had large rings of brass wire. A bullet struck him in the thigh. He quietly wound a rag round the wound and signed to his oarsmen to make for the bank. Then the others lost courage and followed their leader's canoe.

They struggled southwards from one combat to another. The passage of the great curve of the Congo had cost thirty-two fights. Now remained a difficult stretch, where the mighty river breaks in foaming falls and rapids through the escarpment which follows the line of the west coast of Africa. These falls Stanley named after Livingstone; he was well aware that the river could never be called by any other name than the Congo, but the falls would preserve the great missionary's name. Innumerable difficulties awaited him here. On one occasion half a dozen men were drowned and several canoes were lost, and the party had to wait while others were cut out in the forest. One day Pocock drifted towards a fall, and was not aware of the danger until it was too late and he was swept over the barrier. Thus perished the last of Stanley's white companions.

At another fall the coxswain and the carpenter went

adrift in a newly excavated canoe. They had no oars. "Jump, man," called out the former, but the other answered, "I cannot swim." "Well, then, good-bye, my brother," said the quartermaster, and swam ashore. The other went over the fall. The canoe disappeared in the seething whirlpool, came up again with the man clinging fast to it, was sucked under once more, and rose again still with the carpenter. But when it reappeared for the third time in another whirlpool the man was gone.

At last all the boats were abandoned and the men travelled by land. The party was entirely destitute, all were emaciated, miserable, and hungry. A black chief demanded toll for their passage through his country, and they had nothing to give. He would be satisfied with a bottle of rum he said. Rum, indeed, when they had been three years in the depths of Africa! Stanley was reasoning with the chief when the coxswain came and asked what was the matter. "There's rum for him," he said, and gave the chief a buffet which knocked him over and put his whole retinue to flight.

Now it was only a couple of days' journey to Boma, near the mouth of the Congo, where there were trade factories and Europeans. Stanley wrote a letter to them, and was soon supplied with all necessaries; and after a short rest at Boma the party made the voyage round the south of Africa to Zanzibar, where Stanley dismissed his men.

He then travelled home, and was, of course, fêted everywhere. For a thousand years the Arabs had travelled into the interior of Africa, but they did not know the course of the Congo. European explorers had for centuries striven to penetrate the darkness.

The natives themselves did not know whither the Lualaba ran. All at once Stanley had filled up the blank and knit together the scattered meshes of the net; and now a railway runs beside the falls, and busy steamboats fly up and down the Congo. Well did Stanley deserve his native name of Bula Matadi, or "the breaker of stones," for no difficulty was too great for him to overcome.

After a life of restless activity—including another great African journey to find Emin Pasha, the Governor of the Equatorial Province after Gordon's death—Stanley was gathered to his fathers in 1904. He was buried in a village churchyard outside London, and a block of rough granite was placed above the grave. Here may be read beneath a cross, "Henry Morton Stanley—Bula Matadi—1841-1904," and lastly the word that sums up all the work of his life, "Africa."

Timbuktu and the Sahara

In the middle of north-western Africa, where the continent shoots a gigantic tongue out into the Atlantic, lies one of the world's most famous towns, Timbuktu.

Compared with Cairo or Algiers, Timbuktu is a small town. Its three poor mosques cannot vie with the grand temples which under French, Turkish, or English dominion raise their graceful minarets on the Mediterranean shores of Africa. Not a building attracts the eye of the stranger amidst a confusion of greyish-yellow mud houses with flat roofs and without windows, and neglect and decay stare out from heaps of ruins. There is hardly a tottering caravanserai to invite the desert wanderer to rest.

Some streets are abandoned, while in others the foot sinks over the ankle in blown sand from the Sahara.

Timbuktu is not so famous as the sparkling jewels in the diadem of Asia—Jerusalem and Mecca, Benares and Lhasa. The very name of each of these is, as it were, a vital portion of a great religion, and indeed almost stands for the religion itself. Timbuktu has scarcely any religion, or, more correctly, too many. And yet this town has borne a proud name during its eight hundred years of existence—the great, the learned, the mysterious city. No pilgrims flock thither to fall down in prayer before a redeemer's grave or be blessed by a high priest. No pyramids, no marble temples, make Timbuktu one of the world's wonders. No wealth, no luxuriant vegetation exist to make it an outer court to Paradise.



NORTH-WEST AFRICA.

And yet Timbuktu is an object of desire. Millions long to go there, and when they have been, long to get away again. Caravan men who have wandered for months through the desert long for the tones of the flute and the cithern, and the light swayings of the troops of dancers. Palms and mimosa grow sparsely round Timbuktu, but after the dangers of the desert the monotonous, dilapidated town with its dusty, dreary streets seems really like an entrance to Paradise. Travelling merchants who have risked their wealth in the Sahara among savage robbers, and have been fortunate to escape all dangers, are glad at the sight of Timbuktu, and think its grey walls more

lovely than anything they can imagine.

The remarkable features of Timbuktu are, then, its situation and its trade. We have only to take a look at the map to perceive that this town stands like a spider in its web. The web is composed of all the routes which start from the coast and converge on Timbuktu. They come from Tripoli and Tunis, from Algeria and Morocco, from Senegal and Sierra Leone, from the Pepper Coast, the Ivory Coast, and Slave Coast, the Gold Coast, and from the countries round the Gulf of Guinea, which have been annexed by France, England, and Germany. They come also from the heart of the Sahara, where savage and warlike nomad tribes still to this day maintain their freedom against foreign interference.

In Timbuktu meet Arabs and negroes, Mohammedans and heathens from the deserts and fruitful lands of the Sahara and Sudan. Timbuktu stands on the threshold of the great wastes, and at the same time on the third in rank of the rivers of Africa. At the town the Niger is two and a half miles broad, and from its mouth it discharges more water than the Nile, but much less than the Congo. Like the Congo, the Niger makes a curve to the north, bidding defiance to the Sahara; but the desert wins in the end, and the river turns off towards the south.

It is a struggle between life and death. The life-giving water washes the choking sand, and just where the strife is fiercest lies Timbuktu. From the north goods come on dromedaries to be transported farther in canoes or long, narrow boats with arched awnings of matting, or, where the river is not navigable, on oxen and asses or the backs of men. Dromedaries cannot endure the damp climate near the Niger, which

especially in winter overflows its banks for a long distance. Therefore they are led back through the Sahara. They thrive on the dry deserts. The constantly blowing north-east trade-wind dries up the Sahara, and in certain regions years may pass without a drop of rain.

The name Timbuktu has a singular sound. It stands for all the mystery and fascination connected with the Sahara It leads the thoughts to the greatest expanse of desert in the world, to long and lonely roads, to bloody feuds and treacherous ambushes, to the ring of caravan bells and the clank of the stirrups of the Beduins (Plate XXXI.). There seems to be a ring in the name itself, and we seem to hear the splash of the turbid waters of the Niger in its vowels. We seem to hear the plaintive howl of the jackal, the moan of the desert wind, the squealing of dromedaries outside the northern gateway, and the boatmen splashing with oars and poles in the creeks of the river.



PLATE XXXI. A GROUP OF BEDUINS.

Caravans from the northern coast bring cloth, arms, powder, paper, tools, hardware, sugar, tea, coffee, tobacco, and a quantity of other articles to Timbuktu. But when they begin their journey through the Sahara, only half the camels are laden. The other half are loaded with blocks of salt on the way, for salt is in great demand at Timbuktu. Caravans may be glad if they come safely through the country of the Tuaregs, and at best they can only obtain an unmolested passage by the payment of a heavy toll. On the return journey northwards the dromedaries are laden with wares from the Sudan, rice, manioc, honey, nuts, monkey breadfruit, dried fish, ivory, ostrich feathers, india-rubber, leather, and many other things. A small number of black slaves also accompany them. The largest caravans contain five hundred or a thousand dromedaries and five hundred men at most. The goods they can transport may be worth twenty-eight thousand pounds or more. Five great caravan roads cross the Sahara from north to south.

Let us set out on a journey from Timbuktu, and let us go first eastwards to the singular Lake Chad, which is half filled with islands, is shallow and swampy, choked with reeds, rises and falls with the discharge of the great rivers which flow into it, and has a certain similarity to Lop-nor in Central Asia. Nearly 17 cubic miles of water are estimated to enter Lake Chad in the year, and when we know that the lake on the whole remains much about the same size, we can conceive how great the evaporation must be.

We have our own dromedaries and our own Arab guide on whom we can rely. We can therefore go where we like, and we steer our course from Lake Chad towards the eastern Sudan, where we have

already been in the company of General Gordon. But before we come to the Nile we turn off northwards to cross the Libyan desert, the most inaccessible and desolate, and therefore the least known, part of the Sahara. On our way northwards we notice that animal and vegetation life becomes more scanty. Even in the Sudan the grasslands are more thinly clothed and the steppes more desert-like the farther we travel, and at last blown sand predominates. We must follow a well-known road which has been used for thousands of years by Arabs and Egyptians.

We are in the midst of the sea of sand. Here lie at certain places dunes of reddish-yellow drift sand as high as the tower of St. Paul's Cathedral. We see no path, for it has been swept away by the last storm; but the guide has his landmarks and does not lose his way. The sand becomes lower and the country more open. Then the guide points to a bare and barren ridge which rises out of the sand like a rock out of the sea, and says that he can find his way by this landmark, which remains in sight for several days, and is then replaced by another elevation.

We encamp at a deep well, drink and water our camels. Next day we are out in the sandy sea again. The sky has assumed an unusual hue. It is yellow, and soon changes into bluish grey. The sun is a red disc. It is calm and sultry. The guide looks serious, and says in a low tone "samum." The hot, devastating desert storm which is the scourge of Arabia and Egypt is approaching.

The guide stops and turns round. He is uncertain. But he goes on again when he sees that we cannot get back to the well before the storm is upon us. It is useless to look for shelter, for the dunes are too flat

to protect us from the wind. And now the storm sweeps down, and it becomes suffocatingly close and hot. The dromedaries seem uneasy, halt, and turn away from the wind. We dismount. The dromedaries lie down and bury their muzzles in the sand. We wrap up our heads in cloths and lie on our faces beside our animals to get some shelter between them and the ground. And so we may lie by the hour panting for breath, and we may be glad if we get off with our lives from a *samum* when we are out in the desert. Even in the oases it causes a feeling of anxiety and trouble, for the burning heat is most harmful to palms and crops. The temperature may rise to 120° in this dangerous storm, which justifies its name of "poison wind."

The storm passes off, the air becomes clear and is quiet and calm, and the sun has again its golden yellow brilliance. It is warm, but not suffocating as it was. The heated air vibrates above the sand. Beside our road appears a row of palms and before them a silver streak of water. The guide, however, goes on in quite a different direction, and when we ask him why, he answers that what we see is a mirage, and that there is no oasis for many days' journey in the direction in which we see the palms.

In the evening we come to a real oasis, and there we are glad to rest a couple of days. Here are a hundred wells, here the ground is cultivated in the shade of the palms, here we can enjoy to the full the moist coolness above the swards of juicy grass. The oasis is like an island in the desert sea, and between the palm trunks is seen the yellow level horizon, the dry, heated desert with its boundless sun-bathed wastes.

If we now turn off towards the north-west, Fezzan is

the next country which our route touches. It is a paradise of date palms. They occur in such profusion that even dromedaries, horses, and dogs are fed with the fruits. The surface of the ground also has undergone a great change, and is not so sterile and choked with sand as in the Libyan desert. Here and farther to the west the country becomes more hilly. Ridges and bosses of granite and sandstone, weathered and scorched by the sun, stand up here and there. Extensive plateaus covered with gravel are called *hammada*; they are ruins of former mountains which have burst asunder. In the Sahara the differences of temperature between day and night are very great. The dark, bare hill-slopes may be heated up to 140° or more when the sun bathes them, while during the night the radiation out to space is so intense that the temperature sinks to freezing-point. Through these continual alternations the rocks expand and contract repeatedly, fissures are formed and fragments are detached and fall down. The hardest rocks resist longest, and therefore they stand up like strange walls and towers amidst the great desolation.

If we go another step westwards we come to the land of the Tuaregs. There, too, we find hilly tracts and *hammadas*, sandy deserts and oases, and in favourable spots excellent pastures. We have already noticed in Timbuktu this small, sturdy desert people, easily recognised by the veil which hides the lower part of the face. All Tuaregs wear such a veil, and call those who do not "fly-mouths." They are powerfully built, and of dark complexion, being of mixed negro blood from all the slaves they have kidnapped in the Sudan. They are as dry and lean as the ground on which they live, and nature in their country obliges them to lead a nomad life. Wide,

simple, and dreary is the desert, and simple and free is the nomad's life. The hard struggle for existence has sharpened their senses. They are acute observers, clever, crafty, and artful. Distance is of no account to them, for they do not know what it is to be tired. They fly on their swift dromedaries over half the Sahara, and are a terror to their settled neighbours and to caravans. On their raids they cover immense distances in a short time. To ride from the heart of their country to the Sudan after booty is child's play to them. They have made existence in many oases quite unendurable. What use is it to till fields and rear palms when the Tuaregs always reap the harvest? The French have had many fights with the Tuaregs, and the railway which was to pass through their country and connect Algiers with Timbuktu is still only a cherished project. Yet this tribe which has so bravely defended its freedom against the stranger does not number more than half a million people. The Tuaregs are not born to be slaves, and we cannot but admire their thirst for freedom, their pride, and their courage.

The desert here exhibits the difficult art of living. Even animals and plants which are assigned to the desert are provided with special faculties. Some of the animals, snakes and lizards for instance, can live without water. Dromedaries can go for many days without drinking. Ostriches cover great distances to reach water before it is too late. Plants are provided with huge roots that they may suck up as much moisture as possible, and many of them bear thorns and spikes instead of leaves so that the evaporation may be insignificant. Many of them are called to life by a single fall of rain, develop in a few weeks, and die when long drought sets in again. Then the seeds are left, waiting patiently for the next rain. Some

desert plants seem quite dead, grey, dried-up, and buried in dust, but when rain comes they send out green shoots again.

Every river bed is called in the Sahara a *wadi*. Very seldom does a trickle of water run down it after rain, but in these beds the vegetation is richer than elsewhere, for here moisture lingers longer than in other spots. Many caravans march along them, and gazelles and antelopes find pasture here.

A European leaves Algeria to make his way into the Sahara with an incomprehensible feeling of fascination. In the French towns on the Mediterranean coast he has lived just as in Europe. He has been able to cross by train the forest-clad heights of the Atlas Mountains, where clear brooks murmur among the trees. He leaves the railway behind, and finds the hills barer the farther he travels south. At last the monotonous, slightly undulating desert stretches before him, and he feels the magical attraction of the Sahara drawing him deeper and deeper into its great silence and solitude. All the colours become subdued and greyish-yellow, like the lion's hide. Everything is yellow and grey, even the dromedaries which carry him, his tent and baggage, from well to well. He can hardly tell why he finds this country pleasanter than the forests and streams on the slopes of the Atlas Mountains; perhaps owing to the immense distances, the mysterious horizon afar off, the blood-red sunsets, the grand silence which prevails everywhere so that he hardly dares speak aloud. It is the magic of the desert that has got hold of him.

Thirty years ago a large French expedition, under the command of Colonel Flatters, marched along this

route from Algeria southwards through the Sahara. It consisted of a hundred men, including seven French officers and some non-commissioned officers, and its equipment and provisions were carried by three hundred dromedaries. The French Government had sent out the expedition to examine the Tuaregs' country, and to mark out a suitable route for a railway through the Sahara to connect the French possessions in the north and south. It was not the first time that the Colonel had travelled in the Sahara, and he knew the Tuaregs well. Therefore he was on his guard. Everything seemed most promising. The Frenchmen mapped parts of the Sahara which no European had ever succeeded in reaching before—even the great German traveller, who had crossed the Sahara in all directions, had not been there. The most dangerous tracts were left behind, and the Tuaregs had offered no resistance: indeed some of their chiefs had been friendly. In the last letters which reached France, Flatters expressed a hope that he would be able to complete his task without further trouble, and to advance even to the Sudan.

Then the blow fell. The expedition was suddenly attacked at a well, and succumbed after a heroic defence against superior numbers. Most of the Frenchmen were cut down. Part of the caravan attempted to reach safety by hurrying northwards on forced marches, but was overtaken and annihilated. Many brave Frenchmen have met the same fate as Flatters in the struggle for dominion over the Sahara.

If we travelled, as we have lately imagined, on swift-footed dromedaries in a huge circuit from Timbuktu through the Sudan, the Libyan desert, and the land of the Tuaregs, we should at last come to Morocco, "The

Uttermost West," as this last independent Sultanate in Africa is called. Morocco is the restless corner of Africa, as the Balkan Peninsula is of Europe, Manchuria of Asia, and Mexico of North America—in South America all parts are unsettled.

III

NORTH AMERICA

The Discovery of the New World

Now we must say farewell to Africa. We have in front of us the Straits of Gibraltar, little more than six miles broad, the blue belt that connects the Mediterranean with the Atlantic, the sharply defined boundary which separates the black continent from the white.

We have but a step to take and we are in Spain. Here, also, a dying echo from the splendid period of Arab rule reaches our ears. We are reminded that twelve centuries have passed away since the Prophet's chosen people conquered the Iberian Peninsula. The sons of Islam were a thorn in the sides of the Christians. Little by little they were forced back southwards. Only Cordova and Granada still remained in the possession of the Arabs, or Moors as they were called, and when Ferdinand the Catholic married Queen Isabella of Castile in the year

1469, only Granada was left in the hands of the Moors. Their last king lived in his splendid palace, the Alhambra in Granada. In 1491 the Spanish army besieged the Moorish city. Barely forty years earlier the Mohammedans had taken Constantinople. Now other Mohammedans were to be turned out of western Europe. New Year's Day 1492 came and Granada fell. The Moorish king had to bend humbly on his knees before the victor ere he went on his way, and the Castilian flag waved from the towers and pinnacles of the Alhambra.

This remarkable incident was witnessed by a mariner from Genoa, forty-six years old. His name was Christopher Columbus.

At the time of the fall of Granada there was no one among the learned men of Europe who had any suspicion of the existence of a continent in the western ocean, and the Portuguese sought only a sea route to India—the rich land of spices, gold, pearls, and coral. But there was a learned mathematician, Toscanelli of Florence, who perceived that, as the world was round, a mariner must necessarily reach Japan, China, and India by sailing westwards from Europe, and as early as 1474 he produced maps and other proofs of the correctness of his theory. It was Columbus, by his boldness and ability, who converted this theory into fact.

Christopher Columbus was the eldest of five children of a weaver in Genoa. He and his brothers also engaged in the weaving industry, but as their father's affairs were anything but flourishing, the sons decided to seek a living in foreign countries. Christopher became a sailor, and acquired all the qualifications necessary to handle a ship. He gained

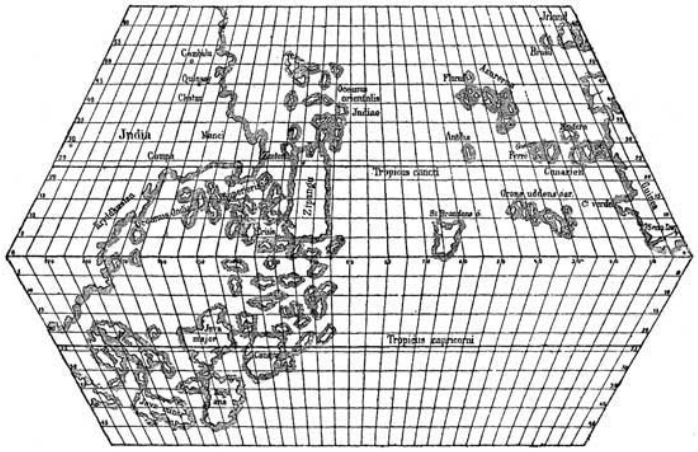
great experience and a thorough knowledge of his new profession. He once sailed on an English vessel to Thule or Iceland, the longest voyage which mariners of that time dared attempt. Then he tried his fortune in Portugal, earning a living by drawing sea-charts and serving as skipper on Portuguese vessels sailing to the eastern shores of the Mediterranean and to Guinea. In the Portuguese school he learned much which was to be of great importance in his future career. He made his home in Lisbon, where he married a lady of rank.

It was at this time that he entered into correspondence with Toscanelli, who sent him a map of the route over the Atlantic to Japan, and gave him much information drawn from Marco Polo's descriptions. These letters made a deep impression on Columbus. He wrote back to Toscanelli that he thought of sailing westwards to Marco Polo's countries according to his instructions, and Toscanelli replied that he was glad to find his ideas were so well understood, and that such a voyage would bring great gain to Columbus, and an extraordinary reputation among all Christian peoples.

Columbus tried in vain to obtain the support he needed for carrying out his plan. The King of Portugal and the learned men of the country listened to him, but treated him as a presumptuous dreamer. There were a few, however, who thought that he might be right, and on their advice the King sent a vessel over the ocean without telling Columbus. It soon returned without having seen land. When Columbus heard of this underhanded proceeding, he left Lisbon in disgust and travelled alone to Spain. His wife and children never saw him again, except

his son Diego, who afterwards joined his father.

For two years he travelled from town to town in that part of southern Spain which is called Andalusia, selling charts, which he drew with his own hand. At last he was received at Court, and was able to set forth his plan before an assembly of courtiers and ecclesiastics. But Castile was too much occupied with the war against the Moors in Granada and Malaga to venture on such a great enterprise, and Columbus had to wait for better times.



TOSCANELLI'S MAP.

Two years more passed by and Columbus was again summoned to the Court, then in Cordova on the bank of the Guadalquivir. His eloquence and enthusiasm had little effect, however, and after two more years of useless waiting he resolved to turn his back on Spain and try his fortune in France.

Sad and depressed, he followed the great highroad from Cordova. Being destitute he went up to a

monastery beside the road, knocked at the gate, and begged for a piece of bread for his little son Diego, whom he held by the hand. While he was talking to the porter the prior came by, listened to his words, perceived by his accent that he came from Italy, and enquired into his story and his aims. The prior was a learned and benevolent man, and entered warmly into the plans of the Italian mariner, perceiving that such an opportunity of acquiring lands in eastern Asia should not be lost to Spain. He accordingly wrote to Queen Isabella, and at the end of 1491 Columbus spoke again before the learned men of the realm. Some of them treated him as an impostor, but others believed his words; and when, after the fall of Granada, the Court had a free hand, it was decided to equip Columbus for his first voyage over the Atlantic.

All the negotiations nearly fell through at the last moment, owing to the demands of Columbus. He wished to be appointed High Admiral of the Ocean and Viceroy over all the savage countries he discovered, and he demanded for himself and his descendants an eighth part of all the revenues of the new lands. But when he declared that he intended to devote his gains to the recovery of Jerusalem from the Turks, his wishes were granted and funds were assigned for the equipment of three ships in the harbour of Palos.

These vessels each had three masts, but they were far too small for such an adventurous enterprise. Only the Admiral's ship, the *Santa Maria*, was completely decked over. The other two, the *Pinta* and *Niña*, had only decks fore and aft. The two brothers Pinzon, of noble extraction, at once volunteered for the voyage, but it was far from easy to enlist crews. Had it been a

voyage along the coasts of Europe and Africa, there would have been no difficulty in finding men, but for a voyage straight out into the unknown ocean—with that the sailors would have nothing to do. At last it was necessary to open the prisons in order to procure ninety men, for only that number was needed for the whole three vessels. The lists of the crews are still extant, and show that most of the men were Castilians.

Two doctors were taken, as well as a baptized Jew, who spoke Hebrew and Arabic, and might be useful as an interpreter when the expedition came over the ocean to India. Curiously enough, Columbus had no chaplain on board, but before he set sail his friend the prior administered the sacrament to all his men, who in the opinion of most were doomed to a watery death.

Armed with a royal despatch to the Great Khan of Mongolia, Columbus stepped on board the *Santa Maria*, the moorings were cast off, and on August 3, 1492, the three ships steered under full sail out into the open sea.

They kept on a south-westerly course, and in six days reached the Canary Islands, where the little fleet stayed a month to repair some damages and patch up the *Pinta's* broken rudder.

On September 8 a definite start was made, and when the lovely Canary Islands and the Peak of Teneriffe sank beneath the horizon, the sailors wept, believing that wind and sails would carry them from the world for ever, and that nothing but water and waves awaited them in the west.

From the first day Columbus kept a very exact diary,

which shows how thoroughly he embraced Toscanelli's theory and how implicitly he relied on his fellow-countryman's calculations. To his crews, however, he represented the distance as short, so that their fears should not be increased by the thought of the great interval that separated them from the Old World. They became more anxious as days came and went, and still nothing but boundless deserts of water spread in every direction.

After a week's sail their keels ploughed through whole fields of floating seaweed, and Columbus pacified his men by the suggestion that this was the first indication of their approach to land.

The *Santa Maria* was a broad and clumsy vessel, really intended to carry cargo. She was, therefore, a slow sailer, and the other two ships usually took the lead. They were of more graceful build and had large square sails, but were of barely half the tonnage of the flagship. But all three kept together and were often so close that shouts could be heard from one ship to the other. One day Pinzon, captain of the *Pinta*, called out to Columbus that he had seen birds flying westwards and expected to sight land before night. They therefore sailed cautiously lest they should run aground, but all their apprehension ceased when a sounding-line two hundred fathoms long, lowered through the floating sea-wrack, failed to reach the bottom.

Their progress was stopped by several days of calm, and it was September 22 before the sea-weed came to an end and the vessels rolled again out to the open bluish-green water.

Through hissing surge the *Santa Maria* and her two consorts cut their way due west. A more favourable

breeze could not be wished. It was the trade wind which filled their sails. The sailors were afraid of the constant east wind, and when at length it veered round for a time, Columbus wrote in his journal: "This head-wind was very welcome, for my men were mightily afraid that winds never blew in these seas which would take them back to Spain."

Toscanelli's map was sent backwards and forwards between Columbus and Pinzon, and they wondered where they really were, and how far it was to the islands of eastern Asia. On September 25, Pinzon ascended the poop of the *Pinta* and called out to Columbus, "I see land." Then he fell on his knees with all his crew, and, with voices trembling with excitement and gratitude, the Castilian mariners sang "Glory to God in the Highest." This was the first time a Christian hymn had sounded over the waves of the Atlantic. The sailors of the *Santa Maria* and *Niña* climbed up into the rigging, and also saw the land and raised the same song of praise as their comrades. But next day the longed-for land had vanished. It was only a mist which lay over the sea to leeward, a mirage in the boundless desert of water.

At the beginning of October, Columbus began to suspect that he had already passed the islands laid down on Toscanelli's map, and he was glad that he had not been detained by them but could sail straight on to the mainland of India. By India was meant at that time the whole of eastern Asia.

On October 7 the men on all the three vessels were sure that they saw land. Every sail was set. Each vessel thought it an honour to reach it first. The *Niña* took the lead. At sunrise the flag of Castile was hoisted to the topmast and a shot thundered from its

poop. During the day the land vanished again. But now flocks of birds were seen, all making south-westwards, and Columbus gave orders to follow in the same direction. He wrote in his diary: "The sea, thank God, lay like the river at Seville, the temperature was as mild as in April at Seville, and the air was so balmy that it was delightful to breathe it."

But they sailed day after day and through the nights, and still there was nothing to be seen but water. The men had several times given vent to their discontent, and now began to grumble again. Columbus soothed them and reminded them of the reward that awaited them when they had attained their goal. "Besides, their complaints were useless, for I have sailed out to reach India, and intend to prolong my voyage until, with God's help, I have found it."

On October 11 a log was seen floating in the sea with marks on it apparently cut by human hands; and shortly after, a branch with clusters of berries. Then the sailors became content, and the Admiral promised a reward to the man who first sighted land. All kept their eyes open and watched eagerly.

In the evening Columbus thought he saw a flash of light as though a man were carrying a torch along a low shore, and later in the night one of the *Pinta's* men swore that land was visible in front. Then all sails were taken in and they waited for the dawn.

When the sun rose on October 12, 1492, its rays illumined, before the eyes of the Spaniards, a flat grass-covered island which Columbus called San Salvador or St. Saviour, after Him who had rescued them from the perils of the sea. This island evidently lay north of Japan—at any rate, it would appear so

from Toscanelli's map. Little did Columbus and his men suspect that a whole unknown continent and the world's greatest ocean, the Pacific, still separated them from Japan. The small island was one of the Bahama group, and is now known as Watling Island. If the voyages of the Northmen five hundred years earlier be left out of account, this island was the first point of the New World reached by Europeans.

The great day was begun with the *Te Deum*. The officers congratulated the Admiral, the sailors threw themselves at his feet and begged forgiveness for their insubordination. A boat was lowered, into which stepped Columbus with the flag of Castile in his hand, followed by the Pinzon brothers with the Banner of the Cross, and a few others. Without knowing it, Columbus stepped on to the soil of America. Solemnly he took possession of San Salvador on behalf of the crown of Castile. A cross was erected on an elevation on the shore in token that the island was in Christian hands.

The natives must have been astonished when they saw the three wonderful ships arrive off their coast and white men come ashore. At first they held aloof, but with beads and other gifts the Spaniards soon gained their confidence. They had only wooden javelins for weapons, did not know iron, had long lanky hair, not woolly like the negroes, were naked, and painted their bodies red and white. They knew gold, and that was well, for it was gold, and gold above everything, that Columbus needed to free the Holy Sepulchre from the Turks. These savages had gold rings in their noses, and when the Spaniards inquired by signs where the gold came from, they pointed towards the south-west.

Columbus, of course, called them Indians. Seven of them were taken on board. They were to go to Spain and "learn to talk," so that they might act as interpreters on subsequent voyages.

Then the voyage of discovery was resumed. The ships had to be sailed with great caution, for dangerous reefs lay round the islands. According to the signs made by the savages two large islands lay to the south. One must be Japan, and when Columbus landed on the coast of Cuba and heard of a prince named Kami, he thought that this man must be the Great Khan, and that he was really on the mainland of eastern Asia. Accordingly he sent his Jew and two of his savages ashore to look for the Great Khan. They were four days away and searched as well as they could among the tent-like huts of the natives, but never saw a glimpse of any Mongolian Great Khan in Cuba.

Exceedingly beautiful was this strange coast, reminding them of Sicily. Sweet song of birds was heard, there was an odour of fruits, and green foliage and palms waved like plumes in the breeze. The Spaniards were astonished to see the natives walking about smoking rolled-up leaves which they called tobacco, and had no notion what a source of wealth these leaves in the form of cigars would become in the future. Pinzon on the *Pinta* must have been bewitched by all the wonders he saw, for he ran off with his vessel to seek the land of gold on his own account. Columbus himself sailed across to the large island of Haiti, which as usual he took possession of in the name of Castile. The natives received him everywhere with amazement and submission, believing that he was an emissary from the abode of the gods.

On the northern coast of the island a great misfortune occurred on Christmas Eve. An inexperienced steersman was at the *Santa Maria's* rudder, and let the vessel run on a sandbank, where it became a wreck. The crew had to take refuge on the *Niña*. The natives helped to save all that was on board, and not even a pin was stolen.

But the *Niña* could not hold them all, and how were they to get back to Spain? Columbus found a way out of the difficulty. He decided to found a colony on the coast. Forty men were to be left behind to search for gold, and by the time Columbus returned from Spain they would no doubt have a tun full of the precious metal, and that would be enough for the conquest of Jerusalem. The sailors were only too glad to remain, for they found the natives accommodating and the climate good. It was in all respects much pleasanter than to endure hardship on the *Niña*, and perhaps founder with the wretched little ship.

Accordingly, a blockhouse was built of wreckage from the *Santa Maria*, was surrounded by a wall and moat and provisioned, and after presenting the chief of the Indians with a shirt and a pair of gloves, Columbus weighed anchor and steered for home.

He had not sailed far before he fell in with the *Pinta*, and took the independent Pinzon into favour again. Then they sailed eastwards across the Atlantic.

On February 12 a storm arose. All the sails were furled and the two ships lost sight of one another for good. The *Niña* pitched horribly and threatened to sink. All made ready for death. Columbus, fearing that his discoveries would perish with him, wrote a narrative on parchment, covered it with wax and placed it in a cask, which was entrusted to the angry

waves. The sailors thought that it was an offering with which Columbus sought to allay the storm.

A few days later the *Niña* arrived safely at the southernmost island of the Azores, and thence continued her voyage to the mouth of the Tagus and Lisbon.

On March 15 the inhabitants of Palos saw the most famous of all the ships of the world come into the harbour. The people streamed down with the wildest jubilation and all the church bells were rung. The same evening the *Pinta* also sailed in, but was very differently received, for it was already known that Pinzon wished to usurp the honour of the discovery, being convinced that Columbus's vessel had been lost in the storm. No one took any notice of him, and he died a few days later, probably of chagrin and sorrow.

In Seville Columbus received a summons from the King and Queen, who were staying in Barcelona. His journey through Spain was one great triumphal progress. He was feted as a conqueror in every town. He was conducted in a brilliant procession through the streets, six copper-brown "Indians" marching at the head with coloured feathers in their head-dresses. This was Christopher Columbus, who had given new lands to Spain, who had discovered a convenient sea route to India just at the time when the Portuguese were looking for a route thither round the coast of Africa. In Barcelona all his titles and privileges were solemnly confirmed. Now he was actually the Admiral of the Ocean and Viceroy of India. Now he had attained the height of worldly honour.

Then began the time of adversity.

On his second voyage, when he set out with seventeen ships, he discovered the northern Antilles as far as Porto Rico and came in contact with cannibals. At Haiti he found that the forty men whom he had left behind on his first voyage had been killed by the natives. He took it for granted that Cuba was the mainland of Asia, and that thence the journey to Spain might be made dryshod by following Marco Polo's footsteps. Discontent was rife among his men, the natives rose up against the intruders, rivals sprang up around him like mushrooms, and in the home country he was abused by high and low.

He returned to Spain to put everything right; but this time he was no longer received with rejoicing, and found that he had now a formidable rival in Portugal. In the year 1497 Vasco da Gama discovered the real sea route to the real India by sailing round the south of Africa, an event which, in the eyes of that generation, quite eclipsed the discoveries of Columbus. In India inexhaustible riches were to be found, whereas the poor islands of Columbus had simply cost money, ships, and men.

But the strong will of Columbus overcame all obstacles, and for the third time he sailed for his fictitious India. Now he held a more southerly course, and discovered the island Trinidad, and found that the water between it and the coast of Venezuela was fresh. There must then be a large river near. This river was the Orinoco.

Disturbances broke out again in Haiti, and Columbus's opponents sent home complaints against him. A Royal Commission was sent out to hold an enquiry, and in the end arrested the Admiral and

sent him in chains to Spain. The captain of the vessel wished to remove his fetters and leave him free as long as he was on board, but Columbus would not consent, for he wished to retain them as a "reminder of the reward he had got for his services."

But when he was led in chains through the streets of Cadiz, the scene of his former triumph, the displeasure of the people was aroused, and at the Court Columbus met with a friendly reception. He even succeeded in fitting out a fourth expedition and crossed the Atlantic in nineteen days. The new Governor forbade him to land, and Columbus expressed his indignation that he, the discoverer, should not be allowed to set foot on his own islands. He then steered westwards and came to the coast of Honduras, and thence followed the coast of Nicaragua southwards. He fully and firmly believed that this was Malacca, and that farther south would be found a passage to India proper. He sailed back towards Cuba, but was driven by bad weather to Jamaica, where in great extremity he had to run his ship ashore. One of his trusty men rowed for four days in a canoe over the open sea to Haiti to beg for help. Meanwhile the shipwrecked men were in hard case. The natives threatened them, and refused them all help. Columbus knew that an eclipse of the moon would shortly occur, and told the natives that if they would not help them, the God of the Spaniards would for ever deprive them of the light of the moon. And when the shadow of the earth began to move over the moon's disc, the natives were terrified, fell at the feet of Columbus, and promised him everything. He pretended to consider the matter, but at last allowed himself to be persuaded and promised that they should keep their moon. And then the shadow moved off quietly into space, leaving the

moon as bright as a silver shield.

At last he received assistance, and in 1504 was back in Spain. No one now paid any attention to him. His property was confiscated, his titles were not restored to him, and even the outstanding pay of his followers was kept back. Ill with gout and vexation, he stayed at first in Seville. His former friends did not know him. Lonely and crushed down by grief and disappointment, he died in 1506 at Valladolid. No one took any notice of his decease, and not a chronicle of the time contains a word about his death. Even in the grave he seemed to find no rest. He was first interred quietly in Valladolid; then his remains were transferred to a monastery church in Seville; half a lifetime later his body was carried to San Domingo in Haiti, where it rested for 250 years until it was deposited in the cathedral of Havana in Cuba; and finally, when Cuba was lost to the United States, the remains of the great discoverer were again brought back to Spain.

Columbus was a tall, powerfully built man, with an aquiline nose, a pink and freckled complexion, light-blue eyes and red hair, which early became white in consequence of much thought and great sorrows. During four centuries of admiration and detraction his life and character have been dissected and torn to bits. Some have seen in him a saint, a prophet; others have called him a crafty adventurer, who stole Toscanelli's plan in order to gain power, honour, and wealth for himself. But when, about twenty years ago, the fourth century since his discovery was completed, full amends were made to his memory and his achievements were celebrated throughout the world. He opened new fields for unborn generations, he extended the bounds of the earth,

and guided the world's history into new channels.

Four years before the death of Columbus, Amerigo Vespucci of Florence, who made four voyages across the ocean, suggested that the new lands had nothing to do with Asia, but were a "New World" in distinction to the Old; and a German schoolmaster, who wrote a geographical text-book, suggested in the introduction that as the fourth continent had been discovered by Amerigo Vespucci (Americus Vesputius), there was no reason why it should not be called Amerigo or America after its discoverer. The proposal was accepted, and only too late was it realised that Columbia would have been the proper name.

One discovery followed after another, and the coasts of America gradually assumed on charts and maps the form with which we are familiar. Let us for a moment dwell on another of the most striking voyages in the history of the world. In the year 1519 the Portuguese Magelhaens sailed along the east coast of South America and discovered the strait which still bears his name; and what is more, he found at last, through this strait, the western passage to India. He sailed over an immense ocean, where the weather was good and no storms threatened his ships; and accordingly he called it the Pacific Ocean. Other dangers, however, awaited him. The mariners sailed for four months over unbroken sea, suffering from hunger and disease. At last three of the vessels reached the Philippines. There Magelhaens landed with a small party, and was overpowered and slain by the natives. Only one of the ships, the *Victoria*, came home, but this was the first vessel which sailed round the world.

During the succeeding centuries white men struck their claws ever firmer into America. The Indians were forced back into the backwoods, and in North America they have been almost exterminated. Under French, and later, under English rule, those parts of North America have developed an unexpected power and wealth which were despised by the Spaniards, who in their boundless greed of gain thought of nothing but gold.

New York

In a house in a Swedish countryside sit an old man and woman talking seriously.

"It is a great pity," says the old woman, "that Gunnar is beginning to think of America again."

"Yes, he will never rest," replies the old man, "till we have given our consent and let him go. To-day he says that an emigration 'touter' has promised him gold and green forests if he will take a ticket for one of the Bremen line steamers. I reminded him that the farm is unencumbered, but he answered that it could not provide for both his brothers and himself. 'It was a very different thing for you, father,' he said, 'but there are three of us to divide the produce.' He thinks it is a hopeless task to grub in our poor stony hills, when boundless plains in the western states of North America are only waiting to be ploughed, and in any factory he can be earning wages so large as to yield a small income for several years."

"Yes, indeed, I know, it is his cousins who have put this fancy in his head with their glowing letters. But I suppose we cannot prevent him going if his heart is set on it?"

"What can we do? He is a free man and must go his own way."

"Well, perhaps it is best. When he is home-sick he will come back again."

"I am afraid it will be long enough before that happens. At starting all seems so fine. 'I shall soon come home with a small pile.' In reality all his memories will grow faint within a year, and the distance to the red cottage will seem to grow longer as time flies. I mourn for him as dead already; he will never come back."

A few days after this our emigrant Gunnar breaks all ties and tears up all the roots which since his birth have held him bound to the soil of Sweden. He travels by the shortest route to Bremen and steps on board an emigrant steamer for New York. During the long hours of the voyage the people sit on deck and talk of the great country to which they are all bound. Before the last lighthouse on the coast of Europe is lost to sight, Gunnar seems to have all America at his finger-ends. The same names are always ringing in his ears—New York, Philadelphia, Chicago, and San Francisco have become quite familiar, and he has only to insert between them a number of smaller towns, a few rivers, mountains, and lakes, to draw in a few railway lines, to remember the great country of Canada to the north and mountainous Mexico in the south, to place at three of the corners of the continent the peninsulas of Alaska, California, and Florida, and at the fourth the large island of Newfoundland, and then his map of North America is complete.

The voyage over the Atlantic draws to an end. One day a growing restlessness and excitement is perceptible, and the travellers cast inquiring glances ahead. It is said that the American coast will be visible in an hour. And so it is. An irregular line appears to starboard. That is Long Island. Two hours more, and the boat glides into the mouth of the Hudson River and comes alongside at Ellis Island in the harbour of New York. A row of other vessels lie moored at the quays. These also have brought immigrants to America and will soon return to fetch more. They must go backwards and forwards year out and year in to carry three thousand persons daily to the United States.

Gunnar has packed his things in good time and takes up a favourable position from which he can observe his fellow-travellers. He has never heard such a noise and never seen such bustle. The people throng the gangways, call to one another, haul out their discoloured portmanteaus and their roped bundles. There are seen Swedes and Germans, Polish and Russian Jews, Galicians and Croats mingled together, some well dressed and with overcoats, others in tattered clothes and with a coarse handkerchief in place of a collar.

Yonder, overlooking New York harbour, stands the colossal statue of Liberty, a female figure holding a torch in her right hand. When darkness lies over the earth she throws a dazzling beam of electric light out over the water, the quays, houses, and ships. But Gunnar experiences no feeling of freedom as he sets his foot on American soil. He and all his fellow-travellers are provided with numbered tickets and marshalled into long compartments in a huge hall. Then they are called out one after another to be

questioned, and a doctor comes and examines them. Those who suffer from lung disease or other complaint, or being old and feeble have no prospect of gaining a livelihood, receive a peremptory order of exclusion on grey paper and must return by the next vessel to their fatherland. The others who pass the examination proceed in small steamers to the great city, where, among the four millions of New York, they vanish like chaff before the wind.

From whatever land they may come they always find fellow-countrymen in New York, for this city is a conglomeration of all the peoples of the world, and seventy different languages are spoken in it. A third of its inhabitants have been born in foreign countries. In Brooklyn, the quarter on Long Island, there are whole streets where only Swedes live. In the "Little Italy" quarter live more Italians than there are in Naples, in the "Chinese Town" there are five thousand Chinese, and even Jews from Russia and Poland have their own quarter. Gunnar soon finds that New York is more complicated than he supposed when he was rolling out on the Atlantic.

Meanwhile he decides to take it easy at first, and to learn his way about before plunging into the struggle for existence. In Brooklyn he soon meets with a fellow-countryman and gets a roof over his head. A pleasant, well-to-do railway employé from Stockholm takes pleasure in showing him about and impressing him with his knowledge of America.

"This town must be old," says Gunnar, "or it could not have grown so large."

"Old! No, certainly not. Compared to Stockholm it is a mere child. It is barely three hundred years old, and at the time of Gustavus Adolphus it did not

contain a thousand inhabitants. But now it is second only to London."

"That is wonderful. How can you account for New York becoming so large? Stockholm and Bremen are pigmies beside it. I have never seen the like in my life. There are forests of masts and steamboat funnels in all directions, and at the quays vessels are loaded and unloaded with the most startling speed."

"Yes, but you must remember that the population of the United States increases at an extraordinary rate. During last century it doubled every twenty years. And remember also that nearly half the foreign trade of the Union passes through New York. Hence are exported grain, meat, tobacco, cotton, petroleum, manufactured goods, and many other things. It is, therefore, not remarkable that New York needs 36 miles of quays with warehouses, and that more than seventy steamboat lines sail to and from the port. And, besides, it is a great industrial town. Think of its position and its fine harbour! Eastward lies the Atlantic with routes to Europe; westwards run innumerable railway lines, five of which stretch right through to the Pacific coast."

"Tell me something about the railways," exclaims Gunnar, who wants to go out west at the first favourable opportunity.

"Yes, I can give you information about them, for I have been working on several lines. As far back as 1840 the United States had 2800 miles of railway, and twenty years later 30,000 miles. Now it has nearly two hundred and forty thousand miles of rails, a strip which would reach to the moon or ten times round the equator. The United States have more railways than all Europe, though the population is

only a fifth that of Europe; but the area is about the same."

"How do you explain this rapid development of railway enterprise?"

"Well, the fact is that at first the aim was to fill up the gaps between the waterways. Rivers were relied on as long as possible, and the first railways were built in districts where there were no large rivers. Then in course of time various lines converged together, new railways were constructed, and now the forty-nine States are covered with a connected network of lines. Moreover, the country roads are so bad that they must be supplemented by railways."

"A large number of bridges must be necessary across all the large rivers?"

"Yes, certainly. The Americans are adepts in bridge-building, and the railway bridges over the Mississippi and Missouri and other rivers are masterpieces of the boldest art. Where lines cross deeply eroded valleys, bridges of timber were formerly built, like sky-scraping parapets with rails laid along the top; but such bridges are now fast disappearing and iron bridges are built, and the trains run at full speed over elegant erections which from a distance look just like a spider's web. Just look to your left. There you have one of the world's strongest bridges, the suspension bridge between New York and Brooklyn. It is of colossal dimensions, and yet it looks so fine and delicate as it hangs between its two mighty piers. You see that vessels with the tallest masts can pass clear below, for it is poised 135 feet above high water. The length is nearly a mile and a quarter. It is wonderful that men have been able to stretch this huge span of iron above the water. Wait a little and

you will see a kind of aerial railway."

Then the Stockholm man takes his new friend to a station to travel on the elevated railway through New York. Gunnar's astonishment is beyond bounds as he rushes along on a framework, supported by innumerable iron pillars, over streets and squares, and sees the seething crowd moving in carriages and on foot below his feet.

"Here is the Central Park. Is it not delightful with its leafy trees and cool pools? In summer it is burning hot in the town, and it is refreshing to rest an hour or two in the shade of the trees. The winters are equally cold, and raw, biting winds blow from the east coast. Here is Fifth Avenue, the finest street of New York. In the row of palaces you see here live millionaires, railway kings, steel kings, petroleum kings, corn kings, a whole crop of kings. But I would rather we went to look at the rows of houses facing the Hudson River."

"New York lies, then, on the Hudson River?"

"That is so, but more properly speaking New York stands on the island of Manhattan in the mouth of the river. We are standing, then, on Manhattan, and it is interesting to recall the fact that this island was sold three hundred years ago by Indians to Dutchmen for the sum of four pounds. It is rather more valuable now! Just look at the hideous sky-scrapers with their twenty and thirty storeys" (Plate XXXII.).

"I was just wondering why houses are built so enormously high."

"That is owing to the tremendous value of the

ground. When there is not space enough to build out laterally, the buildings are piled up heavenwards, where there is plenty of room. They are certainly not handsome. Look at this row of houses, some of moderate height, others as tall as chimneys. Are they not like a row of keys moved by invisible gigantic fingers?"

"I should not like to live in such a building, I am sure. On the top floor I should be giddy with the height, and on the first I should expect the whole mass to tumble down on me."

"We are better off in Brooklyn, where the houses are of moderate height. To-morrow I will show you something not less remarkable than the wealthy quarter of the city. I will take you to the Chinese town. There Chinese swarm in the dirty lanes; there the whole place reeks of onions and tobacco and spirits from the public-houses; there are vile gambling hells and opium dens; and there paper lanterns on fishing rods hang outside the tea-houses. Then we can take a look at 'Little Italy,' a purely Italian town in the midst of the New York of the Americans. There you will see only Italian books in the book-shops, there Italian newspapers are read, there wax candles burn round images of the Madonna in the churches, and black-haired, brown-eyed children from sunny Italy play in the gutters. And we must not forget 'Little Russia,' the Jews' quarter. The Jews are a remarkable people; you never see them drunk, and you never hear of any crime or felony committed by them. They live poorly, cheaply, and sparingly, and seem cheerful in their booths beside the streets."



PLATE XXXII. "SKY-SCRAPERS" IN NEW YORK.

"All this is very well, but I do not understand where all the immigrants go. I am told that as many as three thousand persons land daily on Ellis Island. At

this rate New York receives yearly an addition of a million souls."

"Yes, but how many do you think remain in New York? Most of them go up country and out westwards. Some improve their position and then repair to other fields of work. But many also stay here and increase the slum population. The immigrants who are destitute on landing take work in factories at any wage they can get. The wages they receive seem very high compared to those in their own country, but they are low for America. Accordingly the immigrant Europeans thrust out the Americans, and therefore there are two millions out of work in the United States. And so there are failures, human wrecks, who are a burden to others. If you like we will try this evening to get to a midnight mission and see the poor wretches waiting in crowds for the doors to open. They have a worn, listless expression, but when the doors are open they wake up and rush in, fill all the benches in the large hall, and go to sleep in all imaginable positions."

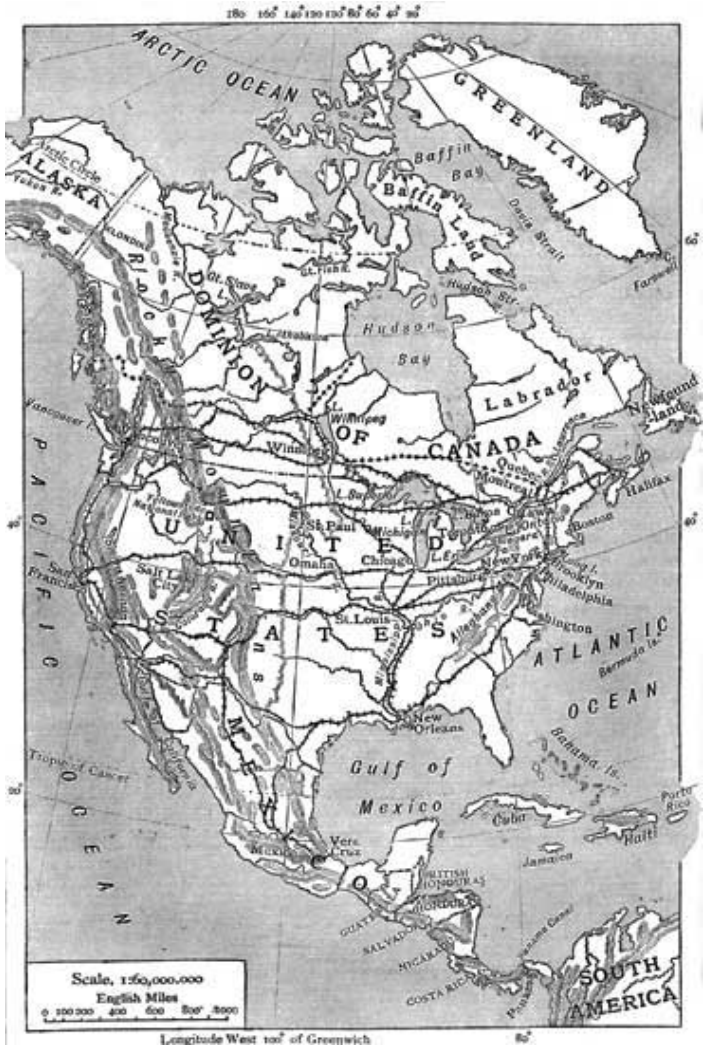
"What do they do there?"

"A missionary preaches to them, but they are hungry and weary, and sleep soundly on their benches. Among them you will find tramps and vagabonds, professional beggars and thieves, idlers and men out of work. In the daytime they beg and steal, and now at night they take their sleep in the mission. When the preacher finishes, they file out and go to the bread stalls to get food. Such is their life day after day, and they sink ever deeper into misery."

"They are the slag that remains after the precious metal has run off, of course. It is curious to think of a people that is increased by a never-failing stream of

immigrants. What will be the end of it?"

"No one can answer that question. Everything is possible with Americans. They are a mixture of English, Scandinavian, German, Dutch, Italian, and Russian blood, to name only the principal constituents of this complex blend, this huge incorporation. Out of all these elements one day an American race will emerge, when Ellis Island has closed its gates to emigrants from Europe."



NORTH AMERICA.

"Tell me another thing, now. Why is not New York, the most important city, also the capital of the country?"

"It was thought that the city which bears the name of the great Washington had a more convenient and more central position with regard to the States of the original federation. The population of Washington is only about 330,000, and there are fifteen larger cities in the United States, but it is the centre of government. There the President lives in White House, there Congress assembles in the Capitol, there stands the Washington monument surrounded by large national buildings, and there three universities are established."

Chicago and the Great Lakes

After our friend Gunnar has seen as much as he wants of New York, he obtains a good post in a large factory, but he stays there only two months, for with other Swedes he receives an offer from Philadelphia which he does not hesitate to accept. His idea is to work his way gradually westward. If he can only get as far as Chicago he thinks it will not be difficult to go on to San Francisco.

Now he works in a yard where more than a thousand locomotives are made annually. This yard seems to him quite a town in itself. Here the iron is made white hot in immense furnaces, there it is hammered and rolled, and with irresistible power human hands convert the hard steel into steam boilers, wheels, axles, and parts of machines which are put together to form engines. The workshop is traversed in all directions by rails, and the completed steam-horses are sent out all over the railway systems of the United States.

Gunnar learns from his mates that Philadelphia is one of the largest cities of the world, with nearly a

million and a half inhabitants, and that in America only New York and Chicago are larger.

After a while, however, Gunnar has had enough of Philadelphia, and takes a ticket for Pittsburg, the steel and iron capital, where immigrants never need be in want of a post. He travels without a change of carriages between the two towns, traversing the whole of Pennsylvania. Innumerable branch lines diverge in all directions, for towns and villages are everywhere. Here a railway runs to a mine, there another to a district rich in maize and tobacco, and here again a third to a timber yard. At the station stand long trains laden with grain, planks, petroleum, cotton, reaping machines, coal—in fact all the wares that the earth can produce by its fertility, and men by the labour of their hands.

The country becomes hilly, and the train winds about through the northernmost part of the Alleghany Mountains. Gunnar lets his eyes rove with strained attention over the dark woods, the waving fields, and the smoke rising from villages and farmhouses, when an American comes and sits down on the seat just in front of him.

"I see that you are a newcomer in America," says the stranger. "It may then interest you to know that the crest of the Alleghany Mountains, composed of granite, gneiss, and slates, is the watershed between the Atlantic and the Mississippi. You must not suppose that these mountains are everywhere as low as here; far down south-west, in North Carolina, there are summits more than six thousand feet high. Maize and fruit are grown in the valleys, and there

are fine forests of pines and foliage trees. And there are places where you lose yourself in dense clumps of rhododendrons and climbing plants. And there are wild recesses where men never go, but where bears and wolves have their haunts among broken branches and twigs, fallen trunks and moss-grown granite boulders, and where nothing is changed since the time when the Indian tribes went on the war-path. But where are you bound for?"

"I am going to Pittsburg to look for work, for I was a smith at home."

"Oh, Pittsburg! I was foreman in some steel works there for two years, and I have never seen anything more wonderful. You know that this town has sprung up out of the earth as if by magic. When petroleum springs were discovered, it increased at double the rate, and now it is one of the world's largest industrial towns, and, as regards iron and steel, the first in America. Here materials are manufactured to the value of more than nineteen million pounds annually. Almost inexhaustible deposits of coal are found in the neighbourhood. More than twenty railway lines converge to Pittsburg, which also has the advantage of three navigable rivers, and a network of canals. And round about the town are suburbs full of machine factories, steel works, and glass works. The neighbourhood has a million of inhabitants, a third of them foreigners, mostly Slavs, Italians, and Hungarians. You have a kind of feeling of oppression when you see from a height this forest of reeking factory chimneys, and when you think of the unfortunate men that slave under this cloud of coal smoke. There is a hammering and beating everywhere, and a rumble of trains rolling over the rails. Overheated furnaces bubble and boil, and

sparks fly out under the steam hammers. At night you might think you were in the bottom of a volcano, where lava boils under the ashes ready to roll out and destroy everything. A weird reddish-yellow light flames forth from thousands of fires, lighting up the under side of the thick smoke cloud. I am sorry for you if you are going to Pittsburg. You had much better travel straight on to Chicago. Not that Chicago is a paradise, but there are better openings there, and you will be nearer the great West with its inexhaustible resources."

"Thanks for your advice. I am the more ready to follow it because I always intended to get to Chicago sometime."

"From Pittsburg," continues the American, "a line runs direct to the large town of St. Louis on the Mississippi. St. Louis is a junction of great importance, for not only do a whole series of great railway lines meet there, but also innumerable steamboats ply from there up the Mississippi and Missouri, and to all the large towns on their tributaries. St. Louis is the centre of all the winding waterways which intersect all parts of the United States. And there you can travel on comfortable flat-bottomed steamers along the main river to New Orleans, a great harbour for the export of cotton. You can well conceive what a blessing and source of wealth this river is to our country. It is of immense extent, for it is the longest river in the world, if we take its length from the sources of the Missouri in the Rocky Mountains, and in the area of its basin it is second only to the Amazons. Its plain is exceedingly fruitful, and far around its banks grain shoots up out of the soil to feed many millions of human beings. And its waterways, ramifying like the nerves of a

leaf, facilitate communication and the transport of goods between the different States.

"You should just see how the great river rises in spring. You might think you were sailing on a large lake, and, as a matter of fact, it floods an area as large as Lake Superior. If the Mississippi is a blessing to men, on the other hand in spring it exacts a heavy tax from them. The vast volumes of brown, muddy water often cut off sharp bends from the river-bed and take short cuts through narrow promontories. By such tricks the length of the river is not infrequently shortened by ten or twelve miles here and there. But you can imagine the trouble this causes. A town standing on such a bend may one fine day find itself six miles from the bank. In another the inhabitants are in danger of being at any time drowned like cats. A railway bridge may suddenly be suspended over dry land, while the river has swept away rails and embankment a little farther off. Our engineers have great difficulty in protecting constructions from the capricious river in spring. Not a year passes without the Mississippi causing terrible destruction and inflicting great loss on those who dwell near its banks, especially in cattle.

"You have only to see this water to comprehend what immense quantities of earth, sand, and mud are yearly carried down by it. And all this silt is deposited in the flat delta below New Orleans. Therefore the delta extends from year to year farther out into the Gulf of Mexico. This is an easy way of increasing our territory, but we would willingly sacrifice the gain if we could get rid of the terrible floods in spring."

The train with our two travellers on board has now

crossed the boundary of Pennsylvania, and is making its way westwards through the states of Ohio and Indiana. Boundless plains extend to north and south, planted with maize, wheat, oats, and tobacco. Maize fields, however, are the most frequent, and the harvest is just beginning. Gigantic reaping machines, drawn by troops of horses, mow down the grain and bind it into sheaves, while other machines throw it into waggons. The reapers have only to drive the horses; all the rest is done by the machines. Certainly men's hands could never be able to deal with all this grain; whole armies could be hidden under the ears of maize.

Now the train skirts the shore of Lake Michigan, which stretches its blue surface northwards, and a little later halts at Chicago.

Gunnar has been directed to an agency for Swedish workmen, and the first thing he does is to call there. In a day or two he obtains work in the timber business, and goes up to Canada in a large cargo steamer which carries timber from the forests of Canada to Chicago. Here the timber supplies seem to him inexhaustible when he sees the dark coniferous woods on the shores and hills, and when he notices that hundreds of steamboats are carrying the same freight. The workman beside him, an Englishman, boasts of the immense territory which occupies almost all the northern half of North America.

"Canada is the most precious jewel in the crown of Great Britain, next to the mother-country and India."

"Why is Canada so valuable? I always thought that

its population was very small."

"It has not many people; you are right there. Canada has only seven million inhabitants."

"Oh, not more! That is just about as many as Greater London."

"Yes; and yet Canada is as large as all Europe and as the United States of America. It stretches so far to east and west that it occupies a fourth part of the circuit of the earth, and if you travel from Montreal to Vancouver you have a journey of 2906 miles. But you can well understand that such an extensive country, even though it is thinly peopled, especially in its cold, northern parts, must yield much that is valuable to its owners."

"Yes, certainly; so it is in Siberia, where the population is also scanty."

"Just so. In Canada fields, mountains, forests, and water yield an immense revenue. Think only of all the agricultural produce which is shipped from here, not to speak of gold, fish, and furs. The wheat produced in Canada is alone worth over 22 million pounds sterling a year. There are also huge areas which are worthless. We get little advantage from the northern coasts, where the Eskimos live."

"You are quite at home on these lakes?"

"Oh yes. When a man has sailed to and fro over them for ten years, he knows all about the roadsteads and channels, and about when the ice forms and breaks up, and when there is a prospect of a storm."

"But the storms cannot be very dangerous?"

"Ah, you do not believe in them. All the same they

may be just as dangerous as in the Atlantic, and when a real hurricane comes, the skipper will do well to seek shelter, or at the best he will lose his cargo. You will soon have opportunities of seeing, hearing, and feeling how the surge beats just as on the coast of the ocean. But then, all these lakes have an aggregate area more than half as large as the Baltic, and if we take the depth into account we shall find that the volume of water is the same as in the Baltic. Lake Superior is the largest lake in the world. Beyond the point yonder lies Lake Huron. You must acknowledge that this scenery is beautiful. Have you ever seen anything to equal this sheet of dark-blue water, the dark-green woods, and the grand peaceful shores? It is a pity that we do not go to Lake Erie, for at its eastern extremity is one of the wonders of the world and the most famous spectacle in North America."

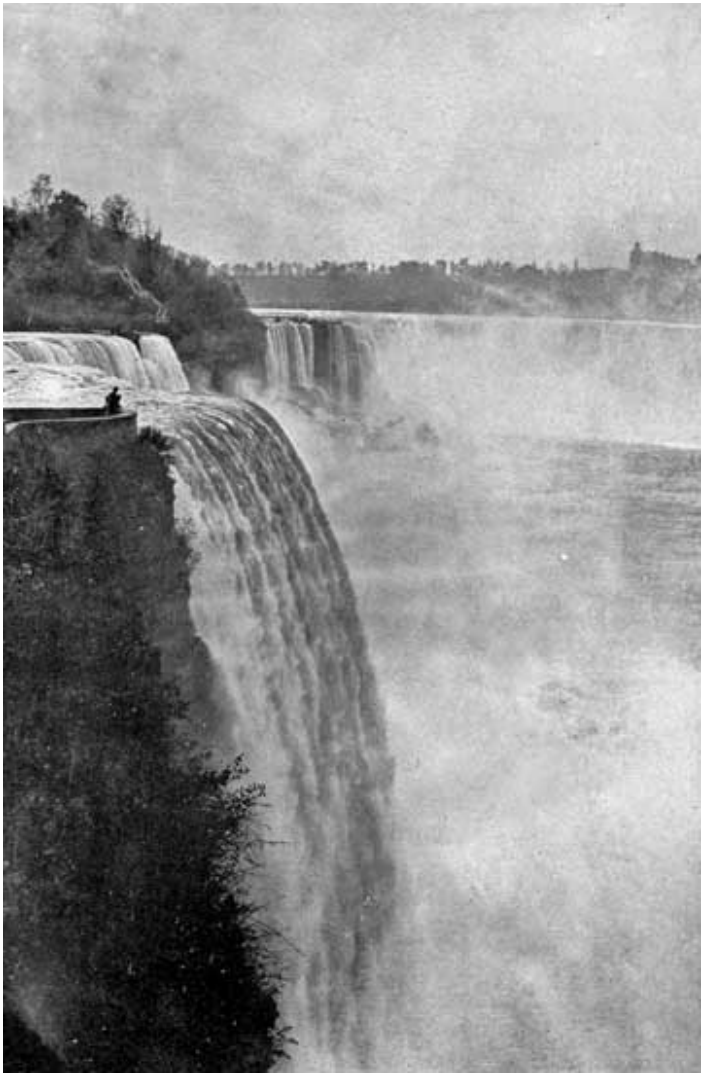


PLATE XXXIII. NIAGARA FALLS.

"You mean the Falls of Niagara, which I have heard described so many times?"

"Yes. Think of a steamboat on Lake Erie sucked along by the stream that flows to Ontario. This lake lies 300 feet lower than Erie, and about half-way between the two lakes the water passes over a sharp bar and plunges with a thundering roar into the depth below (Plate XXXIII.). The barrier itself, which is a thousand yards broad, is formed of a huge stratum of sandstone, and the rocks under it are loose slates. Erosion proceeds more rapidly in the slates than in the hard limestone, which, therefore, overhangs like the projecting leaf of a table, and the collected volumes of water hurl themselves over it. But when the limestone is so far undermined that it is no longer able to bear the weight of the water, fragments break off from time to time from its edge and fall into the abyss with a deafening noise. Thus in time the fall wears away the barrier and Niagara is moving back in the direction of Lake Erie."

"Moving, do you say? The movement can surely not be rapid."

"Oh no; Niagara needs about seventeen thousand years to move half a mile nearer to Lake Erie."

"That's all right, for now I can be sure it will be there when I visit it at some future opportunity."

"Yes, and you would find it even if a crowd of railway lines did not run to it. You hear the roar of the 'thunder water' forty miles away, and when you come closer you see dense clouds of foam and spray rising from the ravine 150 feet below the threshold of the Fall. Yes, Niagara is the most wonderful thing I have seen. In all the world it is surpassed only by the Victoria Falls of the Zambesi, discovered by Livingstone. One feels small and overawed when one ventures on the bridges above and below the Fall,

and sees its 280,000 cubic feet of water gliding one moment smooth as oil over the barrier, and the next dashing into foam and spray below with a thundering noise."

"It would not be pleasant to be sucked over the edge."

"And yet a reckless fellow once made the journey. For safety he crept into a large, stout barrel, well padded inside with cushions. Packed in this way, he let the barrel drift with the stream, tip over the edge of the barrier, and fall perpendicularly into the pool below. As long as he floated in the quiet drift, and even when he fell with the column of water, he ran no danger. It was when he plumped down on to the water below and span round in the whirlpools, bumped against rocks rising up from the bottom, and was carried at a furious pace down under the watery vault. But the traveller got through and was picked up in quiet water."

"I suppose that there are bridges over the Niagara River as over all the others in the country?"

"Certainly. Among them is an arched bridge of steel below the Falls which has a single span of 270 yards, and is the most rigid bridge in the world."

"Tell me, where does all this water go to below Niagara?"

"Well, it flows out into Lake Ontario, opposite Toronto, the largest town in Canada. Then it runs out of the lake's north-eastern corner, forming winding channels among a number of islands, which are called The Thousand Islands. Then the river, which is called the St. Lawrence, is sometimes narrow and

rapid and sometimes expands into lake-like reaches. At the large town of Montreal begins the quiet course, and below Quebec the St. Lawrence opens out like a huntsman's horn. The river is frozen over every year, and in some places the ice is so thick that rails can be laid on it and heavy goods trains run over it. In spring, when the ice begins to break up, the neighbourhood of the river is dangerous, and sometimes mountains of ice thrust themselves over the lower parts of Montreal. It can be cold in Montreal—down to-30°. It is still worse in northern Canada. And the summer is short in this country."

"You have just mentioned Toronto, Montreal, and Quebec. Which is the capital?"

"Oh, none of these is the capital of the Colony. That honour belongs to the small town of Ottawa. And now I will tell you something extraordinary. The Dominion of Canada is situated between two goldfields. In the extreme east is Newfoundland, in the extreme west Klondike. I shall never forget the gold fever which seized adventurers in nearly all countries when it was known that the precious metal occurred in large quantities in the gravel and sand-beds on the banks of the Yukon River. I was one of them myself. Men rushed wildly off to get there in time and stake out small claims in the auriferous soil. What a wild life! How we suffered! We had to pay a shilling for a biscuit and a dollar for a box of sardines. We were glad when a hunter shot elk and reindeer, and sold the meat for an exorbitant price in gold dust. We lived huddled up in wretched tents and were perished with cold. Furious snowstorms swept during winter over the dreary country and the temperature fell to-67°. And what a toil to get hold of the miserable gold! The ground is always frozen up

there. To work in it you must first thaw the soil with fire. By degrees the situation improved and a small town grew up on the goldfield, and in a few years the gold won attained to the value of five millions sterling."

"And the other gold mine, then?"

"Newfoundland. A cold polar current brings yearly quantities of seal, cod, salmon, herring, and lobster down to the banks of Newfoundland, where more than fifty thousand fishermen are engaged in catching them. As the fish brings in yearly a revenue of several millions, this easternmost island of North America may well be called a gold mine too."

Through the Great West

After a few profitable voyages on Lakes Michigan and Huron, Gunnar has saved so much that he can carry out his plan of travelling to the extreme West. He intends to let his dollars fly in railway fares, and, after he has seen enough of the great cities of America, to settle down in the most attractive district. There he will stay and work until he has saved up enough to buy a farm of his own in his native country.

He sets off from Chicago and leaves St. Louis behind him, and is carried by a train on the Pacific Railway through Missouri and Kansas westwards. In the latter State he flies over boundless prairies.

Eventually a German naturalist enters Gunnar's carriage when the train stops at a large station. He is dusty and out of breath, and is glad to rest when he has seen his boxes and chests stowed away in the luggage van. Like all Germans he is alert and

observant, agreeable and talkative, and the train has not crossed the boundary between Kansas and Colorado before he has learned all about Gunnar's experiences and plans.

Soon the German on his part explains the business which has brought him out to the Far West.

"I have received a grant from the University of Heidelberg to collect plants and animals in the western States, and I travel as cheaply as I can so that the money may last longer. I love this great America. Have you noticed how colossal everything is in this country, whether the good God or wicked man be the master-builder? If you cross a mountain range like the Rocky Mountains, or its South American continuation, the Andes, it is the longest in the world. If you roll over a river, as the Mississippi-Missouri, you hear that this also is the longest that exists. If you travel by steamboat over the Canadian lakes, you are told that no sheets of fresh water in the world surpass them. And think of all these innumerable large towns that have sprung up within a century or two. And these railways, these astonishing bridges, these inexhaustible natural resources, and this world-embracing commerce. How alert and industrious is this people, how quickly everything develops, how much more bustle and feverish haste there is than in the Old World!"

"It is charming to see the Rocky Mountains become more and more distinct, and the different chains and ridges stand out more sharply as we approach."

"Yes, indeed. You notice by the speed of the train that we are already mounting upwards. You see the prairies pass into the foot of the hills. We shall soon come into the zone of dwarf oaks and mahogany

trees. Higher up are slopes covered with fine pine woods, and willows and alders grow along the banks of the streams."

"You speak of trees. Is it true, as a skipper on Lake Michigan told me, that there are trees here in the west which are over three hundred feet high?"

"Quite true. Your informant meant, of course, the two species of the coniferous family which are called mammoth trees, because they are the giants of the vegetable kingdom, as the mammoths were of the animal kingdom. They grow on the western flanks of the Sierra Nevada in California. When one sees these heaven-aspiring trees one is tempted to believe that their only aim in life is to rise so high that they may look over the crest of the coast range and have a free view of the Pacific Ocean. One of these giants which fell long ago had a height of 435 feet and a girth of 110 feet at the base. It was called the 'Father of the Forest.' The trunk is hollow. There is also another fallen mammoth called the 'Riding School,' because a man on horseback can ride some way into the inside. These trees are supposed to be several thousand years old. The place in the Sierra Nevada where the last giants stand on their ancient roots is protected and is the property of the whole people. If the law did not protect the trees, they would go the same way as the bisons and Indians."

"Is there not also a reserved area in the Rocky Mountains?"

"Yes; the Yellowstone National Park in the state of Wyoming. It is a wonderful place, and whole books have been written about it. There are as many as four thousand hot springs and a hundred geysers in the lower part of the valley between the crests of the

Rocky Mountains. The Giant Geyser shoots up to a height of 250 feet, and 'Old Faithful' spouts up once an hour. The Park contains many other natural wonders, and there are preserved herds of wild animals, such as elks, antelopes, and stags. Even beavers have found a refuge in its streams."

"Are there dangerous beasts of prey in these mountains?" asks Gunnar while the train puffs and rolls heavily up a dark valley.

"Yes; the grizzly bear is the largest of them. He is not so particularly dangerous, and at any rate is better than his reputation. If he is only left in peace he will not come near a man, and if he is attacked he almost always takes to flight. But if he is wounded at close quarters he may take a terrible revenge, and he is the strongest of all the animals in his native haunts. It was formerly considered a great honour to wear a necklace of a grizzly bear's teeth and claws.

"It is a fine sight to see a grizzly bear roaming through the woods and thickets, where he considers himself absolute master of all the animals of the region. He is sometimes brownish, sometimes grey, and a grey bear is supposed to be more dangerous than a brown. He lives like all other bears, hibernates, eats berries, fruit, nuts, and roots, but he also kills animals and is said to be very expert in fishing. I will tell you a little hunting story.

"A white hunter was once eager for an opportunity of killing a grizzly bear, and a young Indian undertook to lead him to a spot where he would not have to wait long. The two marksmen hid behind a small knoll, after having laid out a newly-killed deer as bait. The Indian, who knew the habits of bears, was not mistaken. Soon a huge bear came waddling out

of the wood with such a ridiculous gait that the white hunter could hardly control his laughter, though the Indian remained silent and serious. The old fellow stopped frequently, lifted his nose in the air, and looked about to convince himself that no danger lurked around. Once he began to scratch in the ground, and then smelled his forepaws and lay down on his back and rolled. He wanted probably to rub his coat in some strongly smelling plant.

"Then he went on again. After a time he sat and clawed his fur, looked at his paws, and licked his pads. Then he scratched himself behind the ears with his hind paws. And when his toilet was finished he trotted straight towards the place where the deer lay. When he saw the animal he was surprised, reared up on his hind legs to his full height, cocked his ears, wrinkled his forehead, and seemed perplexed. When he was sure that the stag was dead he went up to it and smelt it. Then he went round and nosed about on the other side to see if the animal were dead on that side also.

"His meditations were here interrupted, for the white hunter fired and the bear fell, but raised himself again on his hind legs. The hunter followed his example, but the Indian, who saw that the bear was in an angry and revengeful mood, advised him to hide himself again quickly. Too late! The furious bear had seen his enemy, and rushed in a rolling gallop towards his hiding-place. The hunter found it best to run, and in a minute was with the Indian perched on the bough of an oak. Here they loaded their guns again, while the bear, limping on three legs, made for the tree. Hit by two bullets he fell down, tore up the earth and grass with his claws, and at last became still."

"It is a shame," said Gunnar, "to kill these kings of the Rocky Mountains for amusement or to gain a name as a hunter. Probably they are fated to pass away like the bisons and Indians."

"Oh no, not yet. They will long survive in inaccessible regions of the mountains and in the uninhabited parts of Canada. But certainly it is a shame to destroy them unnecessarily, particularly when we hear of such a deed of chivalry as the following.

"A traveller took a young grizzly bear with him to Europe, and on board he was a general favourite. He drank and ate and played with the sailors, and, curiously enough, conceived a great friendship for a small antelope which travelled with him. When the vessel came into port and the antelope was being led along a street, a large bulldog fell on the defenceless animal. The bear, which was led behind the antelope by a chain, perceived his friend's danger, tore himself away from his keeper with a single jerk, threw himself on the bulldog, and mauled him so badly that he ran away howling with pain."

"You may well declare," says Gunnar, "that everything in America is on a large scale, but all the same lions and tigers are not found here."

"No, but there are jaguars and pumas instead. Both are more common in South than in North America, where the jaguar only comes as far north as the south-western States and Mexico. They are found in the outskirts of forests and in the tall grass of the pampas, where wild horsemen track them down,

catch them in lassoes, and drag them after their horses till they are strangled. The jaguar also frequents thickets on the river-banks and marshes. He keeps to the ground, whereas the bold and agile puma even pursues monkeys in the trees. With shrill screams and cries of warning the monkeys fly from tree to tree, but the puma is after them, crawls out along a swaying branch and jumps over to another on the next tree. Both are bloodthirsty robbers, but the jaguar is the larger, stronger, and more savage. He can never be properly tamed, and never loses his innate treacherousness, but the puma becomes as tame as a dog.

"The puma never attacks a man, but you must be on your guard against a jaguar. Both are enemies of flocks and herds, but while the puma never worries tame animals larger than sheep, the jaguar will often attack horses, mules, and young cattle. The jaguar hunts only at daybreak and twilight, or when the moon shines brightly; the puma only in the evening and at night. The puma is dark reddish-yellow, the jaguar orange with black spots and rings on his fur, a marking which reminds one of the colour of certain poisonous snakes. The puma's cubs are charming little creatures, like kittens, but larger. Their eyes do not open until they are ten days old; then they begin to crawl about very awkwardly, tumbling down at every other step, and climb up on their mother's back. They soon become sure on their feet and, like kittens, play with their mother's tail.

"The jaguar is a keen and patient hunter. He crawls along on his belly like a cat, and from the recesses of the thicket watches his victim without moving an eye. He creeps nearer with wonderful agility and noiselessness, and when he is sure of success he

makes his spring, tears open the throat of the antelope, sheep, or waterhog, and drags his booty into the thicket. Small animals he swallows hair and all. Of a horse he eats as much as he can, and then goes off to sleep in some concealed spot. When he awakes he goes back to his meal.

"On one road in South America twenty Indians were killed by jaguars within a lifetime. If a man has presence of mind enough to shout and make a noise and go towards the brute, the latter withdraws. Otherwise he is lost, for even if he escapes with his life, the wounds inflicted by the jaguar's blunt claws and teeth are terrible and dangerous. There are Indians in South America who are said to hunt the jaguar in the following manner. They wrap a sheepskin round the left arm and in the right hand hold a sharp two-edged knife. Then they beat up the jaguar and set dogs at him. He gets up on his hind legs like a bear, and attacks one of the Indians. The man puts out his left arm for him to bite, and at the same time runs his knife into the beast's heart.

"A traveller relates a very good jaguar tale. Some sailors from Europe had landed on the bank of a river in South America. Suddenly they saw a jaguar swimming over from the farther bank. They hurriedly seized their guns, manned their boat, and rowed out to meet the animal. A shot was fired and the jaguar was wounded, but instead of making off, he came straight for the boat. The sailors belaboured him with the oars, but he paid no attention and managed to drag himself on to the boat, when the crew all jumped out and swam to the bank. The jaguar remained, and drifted comfortably down the river. A little farther down came a boat of other sailors, and this time it was the jaguar who jumped

out and disappeared among the thickets on the bank. It was a great feat to make his escape after tackling two boats' crews."

The train continues on its noisy course through the mountains. Dark, wild glens open on either side. The monotonous rumble of the wheels on the rails has a soothing effect, and the German, following the example of many other travellers, goes to sleep in his corner.

But when the tireless locomotive draws its row of heavy carriages out on to a giddy bridge and the waves of sound sing in brighter tones than in the enclosed valleys, the compartment wakes to life again. People look out of the windows and gaze at the yawning depth beneath them. The train seems to be rolling out into space on the way to heaven.

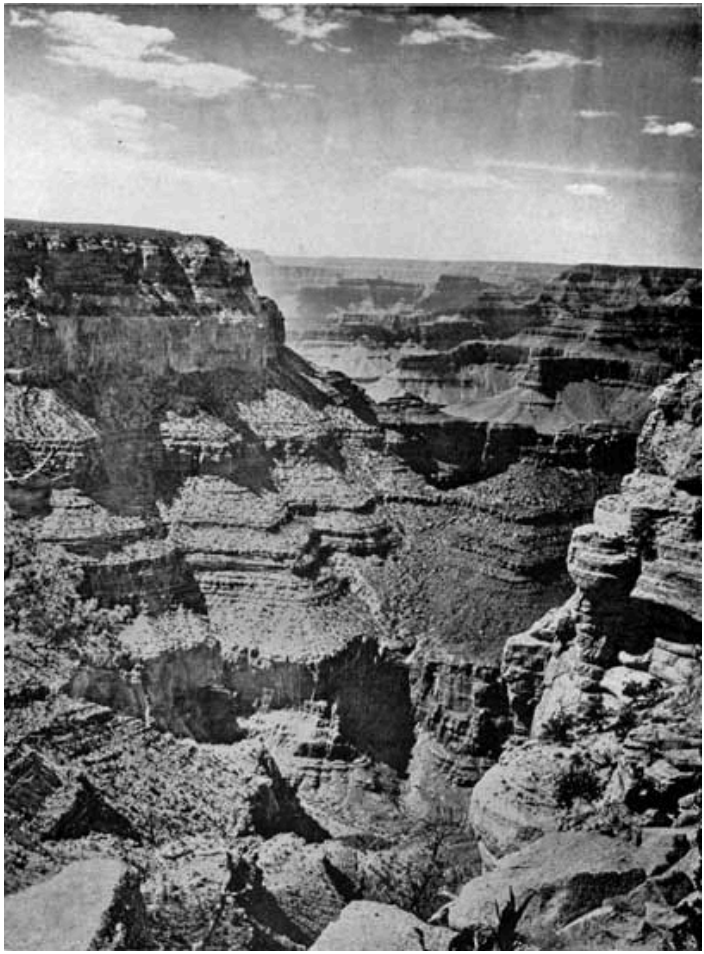


PLATE XXXIV. CAÑONS ON THE COLORADO RIVER.

The German lights a cigar and begins another lecture to his fellow-traveller.

"Here we are passing over one of the source streams of the Colorado River. You seem disinclined to admit

that everything is grand in America, but I maintain that nothing in the world can compare with the great cañon of the Colorado. You may believe me or not. You may talk of fire-vomiting mountains and coral reefs, of the peak of Mount Everest and the great abysses of the ocean, of our light blue Alps in Europe and of the dark forests of Africa, nay, you may take me where you will in the world, but I shall still maintain that there is no stupendous overpowering beauty comparable to the cañons of the Colorado River (Plate XXXIV.).

"Listen! This river which discharges its waters into the Gulf of California is fed by numerous streams in the rainy, elevated regions of the Rocky Mountains. But where the united river leaves Utah and passes into Arizona, it traverses a dry plateau country with little rain, where its waters have cut their way down through mountain limestone to a depth of 6000 feet. The strata are horizontal, and the whole series has been cleared away by the continued erosive power of water, aided by gravel and boulders. This work has been going on from the commencement of the period in the world's history known as the Pliocene Age, and it is reckoned that the interval which must have elapsed since then must have amounted to millions of years. And yet this space of time, from the Pliocene Age to our own, must, geologically speaking, be extremely insignificant compared to the length of the great geological periods. The six thousand years which we call the historical period is but the beat of a second on the clock of eternity, and what the historian calls primeval times is the latest and most recent period in the last of all the geologist's ages. For while the historian deals with revolutions of the sun of only 365 days, the geologist is only satisfied with thousands and millions of years.

The Colorado River has presented him with one of the standards by which he is able to calculate lapse of time. You will acknowledge that it is no small feat for running water to cut its way down through solid rock to a depth of 6500 feet; and these cañons are more than 180 miles long and four to eleven miles broad.

"By its work here the river has sculptured in the face of the earth a landscape which awes and astonishes the spectator. It is like nothing he has ever seen before. When he stood at the foot of the Alps he gazed up at the snow-clad wastes of the mighty mountain masses. When he stands at the edge of the cañons of the Colorado he looks down and sees a yawning chasm, and on the other side of the giddy ravine the walls rise perpendicular or sloping. He seems to stand before the artistically decorated facade of a gigantic house or palace in an immense town. He sees in the walls of the valley, niches and excavations like a Roman theatre, with benches rising in tiers. At their sides stand gables and projections of rock, like turrets and buttresses. Under huge cornices rise columns standing out or attached at the back, all planned on the same gigantic scale. The precipitous cliffs are dark, and the whole country is coloured in pink, yellow, red, and warm brown tones. The sun pours its gold over the majestic desolation. No grassy sward, no vegetation carpets the horizontal or vertical surfaces with green. Here and there a pine leans its crown over the chasm, and when the cones fall they go right down to the bottom.

"In the early morning, when the air is still pure and clear after the coolness of the night, and when the sun is low, the cañon lies in deep gloom, and behind

the brightly lighted tops of the columns the shadows lie as black as soot. Then the bold sculpturing stands out in all its glory. On a quiet night, when the moon holds its crescent above the earth, an oppressive silence prevails over this region. The roar of the river is not heard, for the distance is too great. A feeling of romance takes hold of the visitor. He fancies himself in a fairy world. Only a step over the edge and he would soar on invisible wings to a bright wonderland."

At Salt Lake City the German leaves the train to begin his investigations round the Great Salt Lake and the Mormon capital. Gunnar travels on through the mountainous districts of Nevada and California, and when the train at last pulls up at San Francisco he has reached the goal of his hopes.

Here is one of the finest cities in the world, situated on a peninsula in a deep and spacious inlet surrounded by mountains. Almost all traces of the terrible earthquake which a few years ago destroyed the city have disappeared, and splendid new buildings of iron and stone have sprung up from the rubbish heaps, for as a commercial emporium San Francisco has the same importance with relation to the great routes across the Pacific as New York has on the Atlantic side.

IV

SOUTH AMERICA

The Inca Empire

A terrestrial globe naturally presents a better image of the earth than any map, for it shows plainly the continents and the configuration of the oceans, and exhibits clearly their position and relative size. If you examine such a globe, you notice that the North Pole lies in the midst of a sea, surrounded by great masses of land, whereas the South Pole is in an extensive land surrounded by a wide sea. Perhaps you wonder why all the continents send out peninsulas southwards? Just look at the Scandinavian Peninsula, and look at Spain, Italy, and Greece. Do not Kamtchatka and Korea, Arabia and the Indian Peninsula all point south? South America, Africa, and Australia are drawn out into wedges narrowing southwards. They are like stalactites in a grotto. But however much you may puzzle over the globe, and however much you may question learned men, you will never know why the earth's surface has assumed exactly the form it has and no other.

On another occasion you may remark that Europe, Asia, Africa, and Australia lie in an almost continuous curve in the eastern hemisphere, while America has the western hemisphere all to itself. There it lies as a huge dividing wall between two oceans. You wonder why the New World has such a peculiar form stretching from pole to pole.

Perhaps you think that the Creator must have changed His mind at the last moment, and decided to make two distinct continents of America. You seem to see the marks of His omnipotent hands. With the

left He held North America, and in the right South America. Where Hudson Bay runs into the land lay His forefinger, and the Gulf of Mexico is the impression of His thumb. South America He gripped with the whole hand, and there is only a slight mark of the thumb just on the boundary between Peru and Chile. It almost looks as if He grasped the continent so tightly that its western border was crumpled into great wrinkles and folds which we men call the Rocky Mountains and the Andes. If we did not know that it is the ocean winds that feed the rivers with rain, we should be tempted to believe that the Mississippi, Amazons, Rio de la Plata, and other rivers were moisture still running out of the mountains under the pressure of the Creator's hands.

And so He has divided America into two. In one place the connection broke, but the fragments still remain, and we call them the West Indies or Antilles. In other places the material was too tough. Mexico thins out southwards as though it were going to end in the sea, and Central America is stretched like a wrung-out cloth. Between Guatemala and Honduras it is almost torn through, and the large lake of Nicaragua is another weak point. But where Costa Rica passes into the Isthmus of Panama the connection between the two halves of the New World has been almost broken and hangs only by a hair. The peninsula, however, resisted the pull, and has held, though reduced to a breadth of forty miles.

Then, of course, man must come and help the Creator to finish the work which He Himself found very good. It was long before men ventured on so gigantic an undertaking, but as they had succeeded in separating Africa from Asia, it was no doubt feasible to blast a canal through the hills of the

Isthmus of Panama, 300 feet high. It has cost many years and many millions, but the great cutting will soon be ready which will sever South America from the northern half of the New World. It is surely a splendid undertaking to make it possible for a vessel to sail from Liverpool direct to San Francisco without rounding the whole of South America, and at a single blow to shorten the distance by near 6000 miles.

The bridge still stands unbroken, however, and we come dryshod over to South America just where the Andes begin their mighty march along all the west coast. Their ranges rise, here in double and there in many folds, like ramparts against the Pacific Ocean, and between the ranges lie plains at a height of 12,000 feet. Here also lift themselves on high the loftiest summits of the New World—Aconcagua in Argentina, the highest of all, an extinct volcano covered with eternal snow and glistening glaciers; Sorata in Bolivia; the extinct volcano Chimborazo in Ecuador, like a marble dome; and lastly, one of the earth's most noted mountains, Cotopaxi, the highest of all still active volcanoes (Plate XXXV.). Stand for a moment in the valley above the tree limit, where only scattered plants can find hold in the hard ground. You see a cone as regular as the peak of Fujiyama. The crater is 2500 feet in diameter, and from its edge, 19,600 feet high, the snow-cap falls down the mountain sides like the rays of a gigantic starfish. When the Spanish conquerors, nearly four hundred years ago, took possession of these formerly free countries, Cotopaxi had one of its fearful eruptions; and even in more recent times European travellers have seen the mantle of snow melt away as from a lighted furnace, while a brownish-red reflection from the glowing crater lighted up the devastation caused in the villages and valleys at the

foot of the mountain by the flood of melted snow and streams of lava.



SOUTH AMERICA.

Even under the burning sun of the equator, then, these giants stand with mantles of eternal snow and glittering blue fields of ice in the bitterly cold atmosphere. Up there you would think that you were near the pole. There are no trees on the high crests, which seem to rise up from the depths of the Pacific Ocean; but the climate is good, and agriculture yields sustenance to men. On the eastern flanks, which are watered by abundant rains, the vegetation is exceedingly luxuriant, and here the traveller enters the primeval forests of the tropics. Here is the home of the cinchona tree, here orchids bloom among the tall trunks, and here whole woods are entangled in a network of lianas. Immense areas of Brazil and Bolivia are covered with impenetrable primeval forests, which even still present an obstacle to the advance of the explorer.

Thus we find in the Andes all zones from the hot to the cold, from tropical forests to barren heights, from the equator to high southern latitudes.

Among these mountains dwelled in former times a remarkable and law-abiding people, who under judicious and cautious kings attained a high standard of power and development. To the leading tribe several adjacent peoples allied themselves, and in time the mightiest and most highly-cultured kingdom of South America flourished among them. According to tradition, the ruling royal family took its rise where the icefields of some of the loftiest summits of the Andes are reflected in the mirror of Lake Titicaca. The king was called Inca, and when we speak of the Inca Kingdom we mean old Peru, whose people were crushed and annihilated by the Spaniards.



PLATE XXXV. COTOPAXI.

The Inca Empire extended from Colombia and Ecuador in the north far down to the present Chile. The Inca's power was unlimited, and after death he was honoured with divine rites. He was surrounded with wealth and grandeur. A red headband with white and black feathers was the sign of his royal dignity. By his side stood the High Priest, who had to inquire into and proclaim the will of the gods.

In Cuzco, the holy city of the Indians, north-west of the Titicaca lake, the Inca people had erected a splendid temple to the sun and moon. The halls of the sun temple were overlaid with plates of the ruddiest gold, and the friezes and doors were of the same precious metal. In the principal hall was worshipped an image of the sun with a human face in the centre, surrounded by rays of precious stones. In another hall the image of the moon goddess glittered in silver.

The sun and moon were, then, the objects of the deepest reverence. But the Inca people also prayed to

the rainbow and to the god of thunder, and believed that certain inferior deities protected their herds, dwellings, fields, and canals. They wore on the neck amulets which shielded them from danger and sudden death, and were eventually buried with them.

The dead were sewed up in hides or matting and interred under the dwelling-house, or, in the case of important men, in special funereal towers. On the coast the body was placed among boulders, in sand-banks, or in large vessels of earthenware. With a dead man were laid his weapons and implements, with women their utensils and handiwork, with children their playthings. To the dead, flowers and fruit were offered, and llamas were sacrificed. Dead Incas were deposited in the temple of the sun, and their wives in the hall of the moon.

The Festival of the Sun was held at the winter solstice, and on this occasion the Inca himself officiated as High Priest in his capacity as the "son of the sun." Then was lighted a fire on the altar of the sun, which was kept in all the year by the virgins of the sun. These had a convent near the temple, the royal palace and the house of nobles. It was also their duty to make costly robes for the priests and princes, to brew maize beer for the festivals of the gods, and after victories or a change of Incas to offer themselves to the gods.

The earlier history of the Inca people is lost in tradition and the mist of legends. We know more of their administration and social condition, for the Spanish conquerors saw all with their own eyes. The constitution was communistic. All the land, fields, and pastures was divided into three parts, of which two belonged to the Inca and the priesthood, and the

third to the people. The cultivation of the land was supervised by a commissioner of the government, who had to see that the produce was equitably distributed, and that the ground was properly manured with guano from the islands on the west coast. Clothes and domestic animals were also distributed by the State to the people. All labour was executed in common for the good of the State; roads and bridges were made, mines worked, weapons forged, and all the men capable of bearing arms had to join the ranks when the kingdom was threatened by hostile tribes. The harvest was stored in government warehouses in the various provinces. An extremely accurate account was kept of all goods belonging to the State, such as provisions, clothes, and weapons. A register was kept of births and deaths. No one might change his place of abode without permission, and no one might engage in any other occupation than that of his father. Military order was maintained everywhere, and therefore the Inca people were able to subdue their neighbours. Everything was noted down, and yet this remarkable people had no written characters, but used cords instead, with knots and loops of various colours having different meanings. If the Inca wished to send an order to a distant province, he despatched a running messenger with a bundle of knotted strings. The recipient had only to look at the strings to find out the business on hand.

To facilitate the movement of troops, the Incas constructed two excellent roads which met at Cuzco —one in the mountainous country, the other along the coast. Europeans have justly admired these grand constructions. The military roads were paved with stone, and had walls and avenues of trees. At certain intervals were inns where the swift-footed couriers

could pass the night. The principal highway ran from Cuzco to Quito. When the Inca himself was on a journey, he sat on a golden throne carried on a litter by the great nobles of the empire.

European explorers still discover grand relics of the Inca period. The people did not know the arch, and did not use bricks and mortar, yet their temples and fortresses, their gates, towers, and walls are real gems of architecture. The joins between the blocks are often scarcely visible, and some portals are hewn out of a single block with artistic and original chiselled figures and images of the sun god on the façades.

Their skill in pottery was of equal excellence, and as workers in metal there was none to match them in the South American continent. They made clubs and axes of bronze, and vessels and ornaments of gold and silver. In their graves modern explorers have found many striking proofs of their proficiency in the art of weaving. They used the wool of llamas, alpacas, vicuñas, and guanacos. These species of animal, allied to the camel, still render great services to the Indians. The llama is distributed over the greater part of the Andes, and the male only is used as a transport animal. The llama is shy, stupid, and quiet, and his head is somewhat like a sheep's. The alpaca does not carry loads, but is kept as a domestic animal for the sake of its meat and wool. The vicuña and guanaco also do not work in the service of man. The latter is found chiefly on the steppes of Patagonia, where he meets the fate of the South American ostrich and falls to the arrows of the Indians.

The Inca people wove clothes of the wool of these

animals as well as of cotton. The chief garment of the men was a short shirt without sleeves, of the women a longer shirt with a belt round the waist. The men wore short hair with a black bandage round the head; and outside the bandage they wound a noose or lasso. The women wore their hair long. Sandals covered the feet, and in the ear-lobes were inserted round pegs. The people reared and grazed cattle, as we have seen, and were hunters and fishermen. They grew potatoes and many other root crops, bananas, tobacco, and cotton, and sowed extensive fields of maize. They had all the characteristics of the American race—a short skull, sharply cut features, and a powerfully built body.

For centuries the Inca people had lived in undisturbed repose in their beautiful valleys and on their sunlit tablelands between the mountain ranges —or *cordilleras*, as they are called—which compose the Andes. If their peace was occasionally disturbed by neighbouring tribes, messages in knotted signs flew through the country, and the roads were full of armed men; but the Inca kings dreamed of no serious danger. For several hundred years their power had passed from father to son, and no neighbour was strong enough to wrest the sceptre from the Inca king's hand. Not a whisper of such names as Chimborazo and Cotopaxi had reached Europe.

A great Inca had recently died and bequeathed his power to his two sons, Huascar and Atahualpa. Just as always in the Old World, such a partition produced friction and disputes, and at length civil war broke out. After four hundred years, we read

with sorrow the account of the suicidal strife which harried old Peru, divided the Inca people into two hostile factions, and thus made them an easy prey to the conquerors.

Scarcely had the clash of arms died out after the brave and chivalrous Cortez had burned his ships on the coast of Mexico, subdued the kingdom of Montezuma, and placed it under the crown of Castille, before another Spanish conqueror, the rough, cruel, and treacherous Pizarro, cast his eyes southwards, covetous of new gold countries. With a handful of adventurers, he made his way down to Peru, but soon perceived that he could not succeed without help from the home country. The Emperor Charles V. listened to his tale of gold and green forests, and in the year 1531 Pizarro set out again, this time with a company of 180 well-armed cavaliers. By degrees he gathered fresh reinforcements, landed on the coast of Peru, and marched into the Inca kingdom.

Pizarro was clever and courageous, but, unlike Cortez, he was a base man and a scoundrel. He had no education or proper feeling, and could not even write his name, but he was cunning and knew how to take advantage of favourable circumstances. By means of scouts and ambassadors he soon made himself fully acquainted with the situation. He lulled the fears of Atahualpa by offers of peace, with the result that the Inca king requested his assistance to crush his brother Huascar. If the brothers had held together, they could have driven the Spanish pestilence out of the country. Now the fate of both was sealed.

It was agreed that Atahualpa should come in person

to Pizarro's camp, and he arrived in pomp and state, escorted by an army of 30,000 men. He naturally wished to impress his ally with his power. He sat raised on a litter of gold, and was surrounded by all his generals.

Then Pizarro's military chaplain stepped forth, a Catholic priest. In one hand he held a crucifix, in the other a breviary. Raising his crucifix, he exhorted the Inca king in the name of Jesus to accept Christianity and to acknowledge the King of Castille as his master. Atahualpa retained his composure, and simply answered that no one could deprive him of the rights inherited from his fathers. He would not forswear his fathers' faith and did not understand what the priest said. "It is written here in this book," cried the priest, and handed the breviary to the king. Atahualpa held the book to his ear, listened, and said as he threw the breviary on the ground, "Your book does not speak."

Without warning, a massacre was commenced. The cannon and muskets of the Spaniards ploughed red furrows in the ranks of the Peruvians. Protected by their helmets and harness of steel, and with halberts and lances lowered, the cavaliers swept irresistibly through the ranks of half-naked natives and spread terror and confusion around them. All that could be reached with sword, spear, or bullet were mercilessly slaughtered. Four thousand dead bodies lay scattered over the ground, among thousands wounded and bleeding. The rest of the army was completely scattered and took to flight. The Inca king himself had been early taken captive to be kept as a hostage. Enormous plunder fell into the hands of the victors. The report of a land of gold in the south had not been an empty tale; here was gold in heaps. The loot

was generously divided between the officers and men, and, with the crucifix raised to heaven, the priest read mass while the other villains thanked God for victory.

The captive Inca king begged and prayed to be set at liberty. But Pizarro promised to release him only after he had bound himself to fill a moderate-sized room with gold from the floor up to as high as he could reach with his hand. Then messages in knotted cords were carried through all the country which remained faithful to Atahualpa, and vessels, bowls, ornaments, and ingots of gold poured in from temples and palaces. In a short time the room was filled and the ransom paid, but the Inca king was still kept a prisoner. He reminded Pizarro of his promised word. The unscrupulous adventurer laughed in his black beard. Instead of keeping his promise, he accused Atahualpa of conspiracy, condemned him to death, and the innocent and pious Indian king was strangled in prison. By this abominable deed the whole Spanish conquest was covered with shame and disgrace.

One of Pizarro's comrades in arms, Almagro, now arrived with reinforcements, and with an army of 500 men Pizarro marched on through the high lands to the capital, Cuzco, which he captured. Then he fell out with Almagro, and the latter determined to seek out other gold countries in the south on his own account. With a small party he marched up into the mountains of Bolivia, and then followed the coast southwards to the neighbourhood of Aconcagua. He certainly found no gold, but he achieved a great exploit, for he led his troop through the dreaded Atacama desert.

Meanwhile Pizarro ruled in the conquered kingdom. Close to the coast he founded Lima, which was afterwards for a long period the residence of the Spanish viceroy, and is now, with nearly 150,000 inhabitants, still the capital of Peru. It has a large number of monasteries and churches, and a stately cathedral. The port town, Callao, was almost totally destroyed a hundred and sixty-six years ago by a tidal wave, which drowned the inhabitants and swept away the houses; but it gradually regained its prosperity, and now has 50,000 inhabitants.

At length, however, Pizarro roused a formidable insurrection by his cruelty, and while he was besieged in Lima his three brothers were shut up in Cuzco. Just then Almagro returned from the Atacama desert, defeated the Peruvians, seized Cuzco, and made the three Pizarro brothers prisoners. But the fourth brother, the conqueror, succeeded in effecting their liberation and in capturing Almagro, who was at once sent to the gallows. A few years later, however, Almagro's friends wreaked vengeance on Pizarro; a score of conspirators rushed into the governor's palace and made their way with drawn swords into the room where Pizarro was surrounded by some friends and servants. Most of these jumped through the window; the rest were cut down. Pizarro defended himself bravely, but after killing four of his assailants he fell to the ground, and with a loud voice asked to be allowed to make his confession. While he was making the sign of the cross on the ground, a sword was thrust into his throat.

The murdered Inca king is an emblem of bleeding South America. All was done, it was pretended, in order to spread enlightenment and Christianity, but in reality the children of the country were lured to

destruction, deluded to fill Spanish coffers with gold, and then in requital were persecuted to death. Civilisation had no part in the matter; it was only a question of robbery and greed of gain, and when these desires were satisfied, the descendants of the Incas might be swept off the earth.

The Amazons River

In Peru the largest river of the world takes its source, and streams northwards among the verdant *cordilleras* of the Andes. Wheat waves on its banks, and here and there stands a funereal tower or a ruin from Inca times. Small rafts take the place of bridges, and at high water the river rushes foaming furiously through the valley.

And then it suddenly turns eastwards and cuts its way with unbridled fury through the eastern ridges of the Andes. The water forces itself through ravines barely 50 yards wide and dashes with a deafening roar over falls and rapids. Sometimes the river rests from its labours, expanding to a width of two or three furlongs. Crystal affluents hurry down from the snow-fields of the Andes to join it. It takes its tribute of water from mountain and forest, and is indeed a majestic stream when it leaves the last hills behind.

The source of the Amazons was discovered in 1535 by Marañon, a Spanish soldier. Vicente Pinzon had discovered its mouth in the year 1500. But Marañon, on the one hand, had no notion where the river emerged into the sea, and Pinzon, on the other, knew not where the headwaters purled through the valley. It was reserved for another Spaniard to solve the problem. Let us follow Orellana on his adventurous journey.

Gonzalo Pizarro served under his brother, the conqueror, in northern Peru. There he heard of rich gold countries in the east, and decided to seek them. With an army of 350 Spanish cavalry and infantry, as well as 4000 Indians, he set out from Quito and marched over the Andes past the foot of Cotopaxi to the lowlands of the Napo River.

It was a reckless enterprise. The Indians were frozen to death in crowds on the great heights. Instead of gold, nothing was found but wearisome savannahs and swamps, and dismal forests soaked with two months' rain. Instead of useful domestic animals, no creature was seen but the thick-skinned tapir, which, with a long beak-like nose, crops plants and leaves and frequents swampy tracts in the heart of the primeval forest. The few natives were hostile.

When the troop reached the Napo River on New Year's Day, 1540, Pizarro decided to send the bold seaman Orellana on in front down the river to look for people and provisions, for famine with all its tortures threatened them.

A camp was set up and a wharf constructed. A small brigantine for sails and oars was hastily put together, and Orellana stepped on board with a crew of fifty men, and the boat was borne down the strong current.

Dark and silent woods stood on both sides. No villages, no human beings were seen. Tall trees stood on the bank like triumphal arches, and from their boughs hung lianas serving as rope ladders and swings for sportive monkeys with prehensile tails. Day after day the vessel glided farther into this humid land never before seen by white men. The Spaniards looked in vain for natives, and their eyes

tried in vain to pierce the green murkiness between the tree trunks. The men showed increasing uneasiness; but Orellana sat quietly at the helm, gave his orders to the rowers, and had the sail hoisted to catch the breeze that swept over the water.

No camping-places on points of the bank, no huts roofed with palm leaves or grass, no smoke indicated the vicinity of Indians. In a thicket by a brook lay a boa constrictor, a snake allied to the python of the Old World, in easy, elegant coils, digesting a small rodent somewhat like a hare and called an agouti. At the margin of the bank some water-hogs wallowed in the sodden earth full of roots, and under a vault of thorny bushes lay their worst enemy, the jaguar, in ambush, his eyes glowing like fire.

At length the country became more open. Frightened Indians appeared on the bank, and their huts peeped through the forest avenues. Orellana moored his boat and landed with his men. The savages were quiet, and received the Spaniards trustingly, so the latter stayed for a time and collected all the provisions they could obtain. The Indians spoke of a great water in the south which could be reached in ten days.

The fifty Spaniards were now in excellent spirits, and set to work eagerly to construct another smaller sailing vessel. When this was done, Orellana filled both his boats with provisions, manned the larger with thirty and the smaller with twenty men, and continued his wonderful journey, which was to furnish the explanation of the great river system of tropical America. Around him stretched the greatest tropical lowland of the world, before him ran the most voluminous river of the earth. He saw nothing but forest and water, a bewitched country. He had no

equipment beyond that which was afforded by the Napo's banks, and his men grumbled daily at the long, dangerous voyage.

After ten days the two boats came to the "great water," where the Napo yields its tribute to the Amazons River. The latter was then rising fast, and when it is at its height, in June and July, the water lies forty feet above its low water-level. Farther down the difference tends to disappear, for the northern tributaries come from the equator, where it rains at all seasons, while the southern rise at different times according to the widely separated regions where their sources lie. To travel from the foot of the *cordilleras* to the mouth the high water of the main river takes two months.



PLATE XXXVI. INDIAN HUTS ON THE AMAZONS RIVER.

The Spaniards felt as if they were carried over a boundless lake. Where the banks are low the forests are flooded for miles, and the trees stand up out of the water. Then the wild animals fly to safer

districts, and only water birds and forest birds remain, with such four-footed animals as spend all their lives in trees. The fifty men noticed that certain stretches on the banks were never reached by the high water, and it was only at these places that the Indians built their huts, just as the indiarubber gatherers do at the present day (Plate XXXIV.).

When the high water retired, large patches of the loose, sodden banks were undermined, and fell into the river, weighed down by the huge trees they supported. Islands of timber, roots, earth, and lianas were carried away by the current. Some stranded on shallows in the middle of the river, others grounded at projections of the bank, and other rubbish was piled up against them till the whole mass broke away and danced down the river towards the sea. Here the men had to be careful, for at any moment the boats might capsize against a grounded tree trunk. Deep pools also were found, and the current ran at the rate of 2-1/2 feet a second, and they often had the help of the wind.

They soon learned to know by the changed appearance of the forest where they could land. Where the royal crowns of foliaged trees reared their waving canopy above the palms they could be sure of finding dry ground; but if the palms with verdant luxuriance raised their plumes above low brushwood, they might be sure that the bank was flooded by the river.

If the voyage on the capricious river was dangerous, the Spaniards were still more disturbed by Indians, who came paddling up in their canoes and showered poisoned arrows on the boats. To get through in safety, the explorers had to avoid the banks as much

as possible.

At the end of May they drifted past the mouth of the Rio Negro, which discharges a large volume of water, for it collects streams from Venezuela and Guiana, and from the wet *llanos*, or open plains, north of the Amazons River. Where the great tributary is divided by islands it attains a breadth of as much as thirty miles.

Here Orellana stayed several weeks with friendly Indians, who lived in pretty huts under the boughs of bananas. The vessels were repaired, and provisions taken on board—maize, chickens, turtles, and fish. There were swarms of edible turtles, and the Indians caught them and collected their eggs; and the fish were abundant and various—no wonder, when two thousand species of fish live in the basin of the Amazons.

Shortly afterwards they glided past the mouth of the Madeira, a mile and a half broad, which discharges a volume of water little inferior to that of the main river. For the Madeira has its sources far to the south, and descends partly from the *cordilleras* of Peru and Bolivia, partly from the plateau of Brazil.

Woods and no end of water, month after month! The heat is the same all the year round—not very excessive, seldom 104°, but still oppressive and enervating because of the humidity of the air. Yet the voyage was not monotonous. Leaning against the masts and gunwale, or leisurely moving the oars, the soldiers could observe the dolphins leaping in the river, the sudden darts of the alligators as they hunted the fish through the water, or the clumsy movements of the manati, one of the Sirenia, as it cropped grass at the edge of the bank, to the danger

of the eel-like lung fish, which sometimes goes up on to dry land. Sometimes they saw the Indians in light canoes pursue manatis and alligators with harpoons for the sake of their flesh, and perhaps they felt a shiver at the sight of the huge water-snakes of the Amazons River.

On they went through the immense forest which extends from the foot of the Andes and the sources of the Madeira to the mouths of the Orinoco—through this dense, rank carpet which covers all the lowlands of Brazil with its teeming and superabundant life, and which is so bountifully watered by tropical rains and flooded rivers. All the rain that falls on the *llanos* and the *selvas* (as the wooded plains are called) makes its way through innumerable affluents to the Amazons and enters the sea through its trumpet-shaped mouth. The river, with its forests, is like a cornucopia of vast, wild, irrepressible nature, where life breathes and pulsates, where it bubbles and ripples, seethes and ferments in the soft productive soil, where animals swarm, and beetles and butterflies are more numerous than anywhere else on our earth, and are clad in the most gorgeous hues of the tropics. There old trees on the bank are undermined and washed away, while others decay in the sultry recesses of the forest. There the earth is constantly fertilised by the manure of animals and their corpses and by dead vegetation, and there new generations are continually rising up from the graves in nature's inexhaustible kingdom.

The Spaniards had no time to make excursions into the country from their camps. It is difficult to make one's way through this intricate, ragged network of climbing plants between trunks, boughs, bushes, and undergrowth. In the interior, far away from the

waterways, and especially between some of the southern tributaries, lie forests unknown and untrodden since heathen times. Perhaps there are Indian tribes among them who have not yet heard that America has been discovered, and who may congratulate themselves that the forests are too much for the white men.

There palms predominate in a peaceful Eden, and at their feet flourish ferns with stems as hard as wood. In the bamboo clumps the jaguars play with their cubs, and on the outskirts of the swamps the peccary, a sort of small pig, jumps on his long, supple legs. A dark-green gloom prevails under the tall bay-trees, and their stems stand under their crowns like the columns of a church nave. There thrive mimosas and various species of fig, and climbing palms are not ashamed of their inquisitiveness.

See this tree 200 feet high, with its round, hard fruits as large as a child's head! When they are ripe they fall, and the shell opens to let out the triangular seeds which we call Brazil nuts.

Look at the indiarubber tree with its light-coloured stem, its light-green foliage, and its white sap, which, when congealed, rolls round motor wheels through streets and roads.

Here again is a tree that every one knows about. It grows to a height of 50 feet, and bears large, smooth, leathery leaves, but its blossoms issue from the stem and not among the foliage. Its cucumber-shaped orange fruits ripen at almost all seasons in the perpetual summer of the Amazons. In the fruit the seeds lie in rows. The tree grows wild in the forests, but was cultivated by the Indians before the arrival of white men, and they prepared from it a drink

which they called "chocolatl." It was bitter, but the addition of sugar and vanilla made it palatable. This tree is called the cocoa-tree.

Still better known and more popular is another drink —coffee. The coffee-tree is not found in the primeval forests, but in plantations, and even there it is a guest, for its native country is Kaffa in Abyssinia, and coffee came from Arabia to Europe through Constantinople. Now Brazil produces three-fourths of all the world's coffee, and in all thousands of millions of pounds of coffee are consumed yearly.

The vanilla plant, also, is one of the wonderful inmates of the forests. In order that the wild plants which are indigenous in the mountain forests of Mexico and Peru may produce fruit, the pollen must be carried by insects. Many years ago the plant was transported to the island of Réunion in the Indian Ocean, where it throve capitally, but bore no fruit. The helpful insects of its native country were absent. Then artificial fertilisation with pollen was successfully attempted, and now Réunion supplies most of the vanilla in the world's markets.

Think again of all the animals which live in the forest and its outskirts towards the savannahs! There is the singular opossum, and there is the sluggish, scaly armadillo, which loves the detestable termites —those white ants which, with their sharp mandibles, gnaw to pieces paper, clothes, wood, the whole house in fact. Then there is the climbing sloth, with its round monkey head and large curved claws. All day long it remains sleepily hanging under a bough, and only wakes up when night falls. It lives only on trees and eats leaves. In far-back ages there were sloths as large as rhinoceroses and elephants.

We have, too, the raccoon in a greyish-yellow coat, also a nocturnal animal, which sleeps during the day in a hollow tree. He lives on small mammals and birds, eggs and fruits, but before he swallows his food he cleans it well, generally in water.

There is a perpetual gloom under the crowns of the foliaged trees and palms. It is the home of shadows. Only lianas, these parasites of the vegetable kingdom, raise their stems above the dusky vault to open their calyces in the sun. Round them flutter innumerable butterflies in gaudy colours. On the border between sunlight and shade scream droll parrots, and busy pigeons steer their way among the trees on rustling wings. There humming-birds dart like arrows through the air. They are small, dainty birds with breast, neck, and head shining like metal with the brightest, most vivid colouring. They build their nests carefully with vegetable fibres and moss, and their beaks are long and fine as a reed. There is a humming-bird which does not grow longer than an inch and a half, and weighs little more than fifteen grains.

We must now go back to see how Orellana got on with his two brigantines.

Below the mouth of the Madeira he landed once on the northern bank in a region inhabited only by tall Amazons, from whom the river received its name. But the tale of Amazons was really a sailor's romance, just as the Spaniards dreamed of Eldorado, or the land of gold.

On they went and the river never ended. During their voyage they saw in lakes by the bank, well sheltered and exposed to the sun, the grandest of all flowers, the *Victoria regia* of the water-lily family, floating on

the water. Its leaves measure six feet in diameter, and the blossoms are more than a foot across. The flowers open only two evenings, first white and then purple.

Between the mouths of the mighty tributaries Tapajos and Xingu the Spaniards saw the great grassy plains stretching up to the river. They only just escaped cannibals on the northern bank. Warned by friendly Indians, they were on their guard against the *pirоroca*, the mysterious bore, fifteen feet high, which is connected with the flow of the tide and rushes up the river twice a month from the sea, devastating everything. Finally they came to the northern mouth of the Amazons River, having traversed 2500 out of the 3600 miles of its length.

Here Orellana decked his vessels over and sailed out to sea, making for the West Indies along the coasts of Guiana and Venezuela. Even after the coast was lost to sight he still sailed in yellow, muddy, fresh water, and he was far to the north before he came to blue-green sea-water. For three hundred miles from the mouth the fresh river water overlies the salt. At Christmas he dropped his anchor on the coast of San Domingo, and his grand exploit was achieved.

V

IN THE SOUTH SEAS

Albatrosses and Whales

Like the sting on the scorpion's poison gland, Tierra del Fuego, the most southern land of America, juts out into the southern sea. It is separated from the mainland by the sound which bears the name of the intrepid Magellan. In the primeval forests of the interior grow evergreen beeches, and there copper-brown Indians of the Ona tribe formerly held unlimited sway. Like their brethren all over the New World, they have been thrust out by white men and are doomed to extinction. They were only sojourners on the coasts of Tierra del Fuego, and their term has expired. Only a few now remain, but they still retain the old characteristics of their race, are powerfully built, warlike and brave, live at feud with their neighbours, and kindle their camp fires in the woods, on the shores of lakes, or on the coast.

Many a sailing vessel has come to grief in the Straits of Magellan. The channel is dangerous, and has a bad reputation for violent squalls, which beat down suddenly over the precipitous cliffs. It is safer to keep to the open sea and sail to the south of the islands of Tierra del Fuego. Here the surges of the Atlantic and Pacific Oceans roar together against the high cliffs of Cape Horn.

Who listens to this song, who gazes with royal disdain down over the spray, who wonders why the breakers have been there for thousands of years pounding against gates that never open, who soars at this moment with outspread wings over Cape Horn—who but the albatross, the largest of all storm birds, the boldest and most unwearied of all the winged inhabitants of the realm of air?

Look at him well, for in a second he will be gone. You see that he is as large as a swan, has a short, thick neck, a large head with a powerful pink and yellowish bill, and that he is quite white except where his wing feathers are black. His wings are wonders of creation. When he folds them, they cling close to the body and seem to disappear; but now he has spread them out, and they measure twelve feet from tip to tip. They are long and narrow, thin and finely formed as a sword blade. He moves them with amazing steadiness, and excels all other birds in strength and endurance. No bird has such an elegant and majestic flight. He spreads his wings like sails with taut sheets, and soars at a whistling pace up against the wind. Follow him with your eyes hour after hour in the hardest wind, and you will see that he makes a scarcely perceptible beat of his wings only every seventh minute, keeping them between whiles perfectly still. That is his secret. All his skill consists in his manner of holding his wings expanded and the inclination he gives to his excellent monoplane in relation to his body and the wind. Everything else, change of elevation, and movement forwards with or against the wind, is managed by the wind itself. When he wishes to rise from the surface of the sea he spreads his wings, turns towards the wind, and lets it lift him up. Then he soars in elegant curves and glides up the invisible hills of the atmosphere.

Most noteworthy is the perfect freedom of the albatross. He shuns the mainland and breeds on solitary islands; he can scarcely move on the ground, and when he is forced to alight he waddles clumsily along like a swan. He comes in contact with the earth only at the nest, where the hen sits on her single egg and tucks her white head under her wing.

Otherwise he does not touch the ground. He finds his food on the surface of the sea, and spends three-fourths of his life in the air. There he soars about from sea to sea like a satellite to the earth, moving freely and lightly round the heavy globe as it rolls through space.

He is not restricted to any particular course, no distance is too great for him; he simply rests on his wings and sweeps easily from ocean to ocean. He is, however, rarer in the Atlantic than in the Pacific Ocean, and he avoids the heat of equatorial regions. He sails in any other direction he pleases, where he has most prospect of satisfying his voracious appetite.

What do you think of an albatross which was caught on a vessel and marked so that it might be recognised again, and which then followed the vessel for six days and nights watching for any refuse thrown out? The ship was in the open sea and was sailing twelve knots an hour, but the albatross did not tire. Nay, he made circles of miles round the vessel at a considerable height. On board the ship the watch was changed time after time, for man must rest and sleep, but the albatross needed neither sleep nor rest. He had no one to whom he could entrust the management of his wings while he slept at night. He kept awake for a week without showing any signs of weariness. He flew on and on, sometimes disappearing astern, and an hour later appearing again and sweeping down on the vessel from the front. That it was the same albatross was proved by the mark painted on the breast. Only on the seventh day did he leave the ship, dissatisfied with the fare set before him. He was then hundreds of miles from the nearest coast.

Just think of all the wonderful and remarkable sights he must witness on his airy course! He sees everything that takes place on the decks of large sailing vessels, and the smoke rising out of the steamers' funnels. He marks the clumsy movements of the twenty-feet-long sea-elephants on the gravel shore of the islands of South Georgia, east of Cape Horn, and sees the black or grey backs of whales rolling on the surface of the water.

Perhaps he has some time wandered away northwards over the Atlantic and seen whalers attack the blue whale—the largest animal now living in the world, for it often attains to a length of 90 feet. At the present day whalers use strongly built, swift, and easily handled steam-launches, and shoot the harpoon out from the bow with a pivoted gun. In the head of the harpoon is a pointed shell which explodes in the body of the whale, dealing a mortal wound, and at the butt end a thick rope is secured. The vessel follows the whale until it is dead. Then it is hauled up with a steam winch and towed to a whaling station in some bay on the coast, where it is flitched. Then the oil is boiled out, poured into casks, and sent to market.

Much more picturesque and more dangerous was the whaling witnessed in northern seas by the forefathers of the albatross, for man has been for a thousand years the worst enemy of the whale, and some species are almost exterminated. Then the whalers did not use a gun, but threw the harpoon by hand. Every vessel had several keelless whale-boats, pointed at both bow and stern, so that they could be rowed forwards or backwards. When a whale was seen in the distance the boats set out, each boat manned by six experienced whalers. One of them

was the coxswain, another the harpooner, while the others sat at the oars. The harpoon line, an inch thick, lay carefully coiled up, and ran out through a brass eye in the bow. Every man knew from long experience what he had to do at any particular minute, and therefore there was silence on board, all working without orders.

When all is ready one of the boats rows towards the whale, and the harpooner throws his sharp weapon with all his strength into the whale's flank. Almost before the harpoon has struck the boat is backed swiftly. Wild with pain, the whale may strike the boat from above with his powerful horizontal caudal fin and crush it at a blow, or he may dive below the boat and upset it, but usually he thinks only of making his escape. He makes for the depths in fright, and the harpoon line runs out, the strands producing a singing sound. Great care is necessary, for if the line curls round a man's leg he is carried overboard and is lost. The whale dives at once to a depth of a couple of hundred fathoms. There it is dark and quiet, and he remains there half an hour or an hour, till at length he is obliged to come up to breathe. The lie of the line in the water shows approximately where he will come up again, and another boat rows to the spot. As soon as he appears above the surface a second harpoon whistles through the air.

The whale is now too breathless to dive. He swims along the surface and lashes the waves with his tail to free himself from his tormentors. He speeds along at a desperate pace, dashing the waves into spray around him and drawing the boats after him. The crews have hauled in the lines, and the boats are quite close to the whale, but they must be ready to pay out the lines if the whale dives. The boats' prows

are tilted high up into the air and the water streams off them. They shoot forward like mad things through the foaming sea, whether it be day or night, and pitch up and down over the crests of the waves. With stretched muscles, clenched teeth, and glaring eyes the whale-hunters follow the movements of the whale and the boat.

They notice that the pace slackens. The whale begins to tire, and at last is quite exhausted. Its movements become irregular, it stops and throws itself about so that the water spurts up round it. Then a boat rows up, and a long spear is thrust in three feet deep towards the animal's heart, and perhaps an explosive bullet is fired. If the lungs are pierced the whale sends up jets of blood from its nostrils—"hoisting the red flag," in the language of whalers. Its time is come; it gives up the struggle, and its death tremors show that another of the giants of the ocean has bid a last farewell to its boundless realm.

Robinson Crusoe's Island

On motionless wings an albatross hovers high above Cape Horn. His sharp eye takes in everything. Now he sees in the distance smoke from the funnel of a steamer, and in a couple of minutes he has tacked round the vessel and decided to follow it on its voyage to the north. To the east he has the coast of Chile, with its countless reefs and islands and deep fiords, and above it rises the snow-capped crest of the Andes. As soon as refuse is thrown overboard, the albatross swoops down like an arrow. A second before he touches the water he raises his wings, draws back his head, stretches out his large feet in front with expanded claws, and then plumps down

screaming, into the water. He floats as lightly as a cork. In a moment he has swallowed all the scraps floating on the surface, and then, turning to the wind, rises to a giddy height.

The vessel happens to be carrying goods to Santiago, the capital of Chile, and casts anchor at its port town, Valparaiso. In the background rises Aconcagua, the highest mountain of America.

Then the albatross steers out to sea to try his luck elsewhere. Seventy miles from the coast he comes across the notable little island, Juan Fernandez, and circles round its volcanic cliffs. For him there are no frightful precipitous ascents and descents; from his height he can see all he wishes to see. It is otherwise with explorers. Some cliffs are inaccessible to their feet, as Carl Skottsberg found when he went out to the island three years ago in a Chilian vessel. He saw the cliffs 3000 feet high, and heard the surf rolling in round the island. It was a perfect picture of wild desolation. He found it difficult to land in a small boat. He looked in vain for parrots, monkeys, and tortoises, but found, instead, that more than half the number of the plants on the island are such as grow on no other spot on the earth. Among them are palms, with bright, pale-green trunks, which have been recklessly destroyed by men to make walking-sticks. Here also are tree-ferns, and the small, delicate, climbing ferns which gracefully festoon trunks and boughs. And here also is the last specimen of a species of sandalwood which, wonderful to relate, has found its way hither from its home in Asia. A couple of hundred years ago it grew profusely on the island, but now it has been nearly exterminated by man's cupidity. The red, strongly scented wood was too much in demand for fine

cabinet work and other purposes. Only one small branch now produces foliage on the last sandal-tree. In this case it is not the last tree among many, but the last specimen of a species which is vanishing from the earth.

In a cave at the foot of a mountain, according to tradition, lived Robinson Crusoe, and from a saddle in the crest he threw longing, eager glances over the great ocean. A memorial tablet in the cave relates that the real Crusoe, a Scotch sailor named Selkirk, lived alone on the island for four years and four months in the years 1704-1709. He went on shore of his own accord, being dissatisfied with the officers of the ship to which he belonged. The climate was mild, the rainfall moderate, and wild goats and edible fruits served him for food.

Such is the actual fact. How much more do we delight in the Robinson Crusoe whose story is so charmingly depicted in a romantic dress! His vessel foundered, and he was the only man who was thrown up by the stormy waves upon the island. There he made himself at home, wandered round the shore and through the woods, and filled a shooting-bag of banana leaves with oysters, turtle's eggs, and wild fruits. With his simple bow he shot the animals of the forest to make himself clothes of their skins, and wild goats, which he caught and tamed, yielded him milk, from which he churned butter and manufactured cheese. He became a fisherman, furrier, and potter, and on the height above his cave he had his chapel where he kept Sundays. He found wild maize, and sowed, reaped, and made bread. As years passed on, his prosperity increased, and he was a type of the whole human race, which from the rude simplicity of the savage has in the course of ages

progressed to a condition of refinement and enlightenment. When he was most at a loss for fire to prepare his food, the lightning struck a tree and set it on fire, and we remember that he then kept up his fire for a long time, never letting it go out. He was very grieved when it at length expired, but a volcanic outbreak came to his assistance, and he lighted his fire again from the glowing lava. He made himself a bread oven of bricks, and built himself a hut and a boat.

Once when he was away on an excursion, and lay asleep far from his dwelling, he started up in alarm at hearing some one call out his name. It was only his own parrot, which had learned to talk, and which had searched for him, and was sitting on a bough calling out "Poor Robinson Crusoe!"

How well we remember his lonely walk to the other side of the island, when he stood petrified with fear before the print of a human foot in the sand! For eight years he had been alone, and now he found that there were other human beings, cannibals no doubt, in the neighbourhood. He stood, gazed, listened, hurried home, and prepared for defence. Here, also, he is a type of peoples and states, which sooner or later awake to a perception of the necessity of defence against hostile attacks. His suspicions give way to certainty when one day he sees a fire burning on the beach. He runs home, draws up the ladder over the fortification round his dwelling, makes ready his weapons, climbs up to his look-out, and sees ten naked savages roasting flesh round a fire. After a wild dance they push out their canoes and disappear. At the fire are left gnawed human bones and skulls, and Robinson is beside himself at the sight.

At the end of the fourteenth year he is awakened one stormy night by a shot. His heart beats fast, for now the hour of deliverance is surely at hand. Another shot thunders through the night. Perhaps it is a signal of distress from a ship! He lights a huge fire to guide the crew. When morning dawns, he finds that a ship has run on to a submerged rock and been wrecked. No sign of the crew is visible. But yes, a sailor lies prostrate on the sand and a dog howls beside him. Crusoe runs up; he would like a companion in his loneliness; but however long he works with artificial respiration and other remedies, the dead will not come to life, and Robinson Crusoe sadly digs a grave for the unknown guest.

Another year passes and all the days are alike. As he sits at his table, breaking his bread and eating fish and oysters, he has his dog, parrot, and goats as companions and gives them a share of his meal.

One day he sees from his look-out hill five boats come to the island and put to shore, and thirty savages jump on land and light a fire. Then they bring two prisoners from a boat. One they kill with a club. The other runs away and makes straight towards Crusoe's dwelling. Only two men pursue him, and Crusoe runs up to help him. At a sign from his master, the dog rushes on one of the savages and holds him fast till he gets his death-blow, and the other meets the same fate. Then Crusoe by signs and kindly gestures makes the prisoner understand that he has found a friend. The poor fellow utters some incomprehensible words, and Crusoe, who has not heard a human voice for fifteen years, is delighted to hear him speak. The other savages make off as fast as they can.

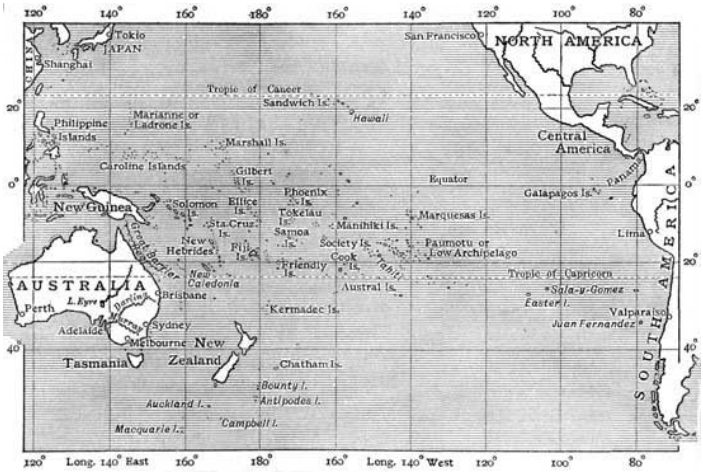
Robinson Crusoe's black friend receives the name of Friday, because he came to the island on a Friday. In time Friday learns to speak, and brightens and relieves the life of the solitary man. One day another wreck is stranded on the rocks, and Robinson and Friday fetch from its stores firearms and powder, tools and provisions, and many other useful things. When eighteen long years have expired, the hero of our childhood is rescued by an English ship.

Across the Pacific Ocean

The albatross is a knowing bird, or he would not follow vessels for weeks. He knows that there is food on board, and that edible fragments are often thrown out. But his power of observation and his knowledge are much greater than might be suspected. He knows also of old where small storm birds take their prey, and when he finds them flying along with their catch he shoots down like lightning among them, appropriates all he can find, and does not trouble himself in the least about the smaller birds' disappointment.

But these vultures of the sea are still cleverer in other ways. Their forefathers have lived on the sea for thousands of years, and their senses have been developed to the greatest acuteness and perfection. They know the regular winds, and can perceive from the colour of the water if a cold or warm sea current sweeps along below them. If now our friend the albatross, travelling westwards over the islands of Polynesia, wishes to be carried along by the wind, he knows that he has only to keep between the Tropic of Capricorn and the equator in order to be in the belt of the south-east trade-wind. And no doubt he

has also noticed that this wind gives rise to the equatorial current which, broad and strong, sets westwards across the Pacific Ocean. If he wishes to fly north of the equator, he receives the same help from the north-east trade-wind; but if he wanders far to the south or north of the equator, he will meet with head winds and find that the ocean current sets eastwards. In the northern half of the Pacific Ocean this north-easterly current is called the Kuroshiwo, or "Black Salt." It skirts the coast of Japan and runs right across to Canada. This current is one of the favourite haunts of the albatross.



THE SOUTH SEAS.

He knows further that the arrangement of winds and currents is just the same in the Atlantic. There, however, the current running north-east is called the Gulf Stream, and it is the warm water of this stream, coming from the equator, which makes the climate of north-western Europe so mild, and prevents even the northernmost fiords of Norway from freezing in winter.

Meanwhile the albatross is on its course westwards, careless of winds and currents. He heeds not the hardest storm, and, indeed, where could he hide himself from its violence? His dwelling is the air. The sea is high, and he skims just above the surface, rising to meet each wave and descending into every trough, and the tips of his wings seem to dip into the foam. The great ocean seems dreadfully dreary and deserted. The sun glistens on the spindrift, and the albatross is reflected in the smooth, bright roof of

waves above the fairy crystal grottoes in the depths.

He rises to see whether the island he is thinking about is visible above the horizon. Beneath him he sees the dark, white-tipped, roaring sea. From the west, bluish-black rain-clouds sweep up and open their sluice-gates. Is the albatross hindered in his flight by the rain which pelts violently down on his back and wings? Well, yes, he must certainly be delayed, but he can foretell the weather with certainty enough to keep clear, and he is swift enough on the wing to make his escape when overtaken by rain. And he can always descend, fold his pinions, and rest dancing on the waves.

The rain over, he flies higher up again and now sees Easter Island, which from an immense depth rises above the water, terribly lonely in the great ocean. On a sloping beach he sees several monuments of stone, thirty feet high, in the form of human heads. They mark graves, and are memorials of a long-vanished settlement. Now there are only about 150 natives on Easter Island, and even these are doomed to extinction. Three white men live on the island, but it is long since news was heard of them, for no vessel has touched there for several years. Of other living things only rats, goats, fowls, and sea birds exist on the island.

At some distance to the north-east lies Sala-y-Gomez, a small island of perfectly bare rocks, only inhabited by sea-fowl, and there the albatross pays a passing visit. Now he rises again and continues his flight westwards. Soon he comes to a swarm of insignificant islands called the Low Archipelago. So we name the islands, but the dark-skinned natives who by some mysterious fortune have been banished

to them call them Paumotu, or "Island Cloud." A poet could not have conceived a better name. There lie eighty-five groups of islands, each consisting of innumerable holms. They are really a cloud of islets, like a nebula or star mist in the sky, and this swarm is only one among many others studding all the western part of the Pacific Ocean.

Now the albatross soars round the rocks of the "Island Cloud." He can see them easily from up above, but it is a harder matter for a vessel to make its way between the treacherous rocks and reefs. Though they are so many, the aggregate area amounts to less than four square miles. Almost all are formed of coral, and most of them are atolls. Reef—building corals are small animals which extract lime from the water. They multiply by budding, and every group forms a common clan where living and dead members rest side by side. Coral animalculæ demand for their existence a firm, hard sea bottom, crystal-clear water, sufficient nutriment brought to them by waves and currents, and lastly a water temperature not falling below 68°. Therefore they occur only in tropical seas and near the surface, for the water becomes colder with the depth. At depths greater than 160 feet they are rare. They die and increase again and again, and therefore the coral reefs grow in height and breadth, and only the height of water at ebb tide puts a limit to their upward growth. The continual surf of the sea and stormy waves often break off whole blocks of coral limestone, which roll down and break up into sand. With this all cavities are filled in, and thus the action of the sea helps to consolidate and strengthen the reef. Other lime-extracting animalculæ and also seaweeds establish themselves on the reef. In the course of time the waves throw up loose blocks on

the top of the reef, so that parts of it are always above the water-level. When the water rises during flood-tide, white foaming surf indicates the position of the reef at a long distance. During the ebb the reef itself is exposed and the sea is quiet. Between ebb and flood the fairway is dangerous, for there is nothing to warn a vessel, and it may run right on to a coral reef and be lost.

Reefs have various forms and lengths. The great Barrier Reef, which lies off the north-east coast of Australia, is 1200 miles long. When reefs form circles they are called atolls. By means of winds, birds, and ocean currents, seeds are carried about the ocean, and strike root on any parts of the reef which lie above the level of the flood-tide. In the fulness of time the atoll is completed, built up by animalculæ and plants. The "Island Cloud" is the largest continuous atoll region in all the world. There the circular coral islands lie like a collection of garlands thrown down upon the sea. Within them the water may be as much as 230 feet deep, and in the lagoons of some atolls all the fleets of the world could find room. The minute coral animalculæ have provided by their industrious labour shelter for the largest vessels.

On many of the atolls grow cocoa palms, and only then are the ring-shaped islands inhabitable. How curious they look to one approaching on a vessel! Only the crowns of the palms are seen above the horizon; the island, being low, is out of sight. One might be coming to an oasis in the boundless Sahara. At last the solid coral ground of the island comes into sight (Plate XXXVII.). Breakers dash against the outer side of the ring, but the lagoon within is smooth as a mirror in the lea of the corals and palms.



PLATE XXXVII. A CORAL STRAND.

Four thousand natives of Polynesian race live on the holms of the "Island Cloud," a couple of hundred on each atoll. They gather pearls and mother-of-pearl, and barter them for European goods at a ridiculously low price. On some islands, bread-fruit trees, pineapples, and bananas are grown. Animal life is very poor—rats, parrots, pigeons, thrushes, and lizards—but all the richer is the life in the sea outside. The natives are most excellent seamen, and it is hard to believe that they are lifelong prisoners on their islands. They sail with sails of matting made by the women, and have outriggers which give stability to their boats, and they cross boldly from island to island.

What does the albatross care if the French have hoisted their tricoloured flag over the atolls of the "Island Cloud" and their nearest neighbours to the west? He is absolute ruler over them all, and seizes his prey where he will.

Now he makes for the Society Islands, and takes a

circuit round the largest of them, Tahiti, the finest and best known of all the islands in the southern sea. There again he sees volcanoes long since extinct, grand wild cliffs thickly covered with wood, impenetrable clumps of ferns, and luxuriant grass, while down the slopes dance lively brooks to the lagoon separated from the sea by the breakwaters of the coral master-builders. On the strand grow the ever-present cocoa palms, as distinctive of the islands of the southern sea as the date palms are of the desert regions of the Old World. Here the weather is beautiful, a warm, equable, tropical sea climate with only three or four degrees difference between winter and summer. The south-east trade-wind blows all the year round, and storms are rare visitors. The rain is moderate, and fever is unknown.

The natives take a bright and happy view of life. They deck their hair with wreaths of flowers, their gait is light and easy, and they knew no sorrow until the white man came and spoiled their life and liberty.

Now the original inhabitants of Tahiti are dying out, and are being replaced by Chinamen, Europeans, and natives from other islands to the north-west. They still, however, till their fields, put out their fishing-canoes in the lagoon, and pull down cocoa-nuts in their season. They still wear wreaths of flowers in their hair, a last relic of a happier existence. Pigeons coo in the trees, and green and blue and white parrots utter their ear-piercing screams. Horses, cattle, sheep, goats, and swine are newcomers; lizards, scorpions, flies, and mosquitoes are indigenous. The luxuriant gardens with their natural charms Europeans have not been able to destroy, and the frigate bird, the eagle of the sea, with the tail

feathers of which the chiefs of Tahiti used to decorate their heads, still roosts in the trees on the strand, and seeks its food far out in the sea. The albatross cannot but notice the frigate bird. He sees in him a rival. The latter does not make such long journeys, and does not venture so far out to sea; but he is a master in the art of flying, and he is an unconscionable thief. He follows dolphins and other fishes of prey to appropriate their catch, and forces other birds to relinquish their food when they are in the act of swallowing it. When fishermen are out drawing up their nets, he skims so low over the boat that he may be stunned with an oar, and he is so attracted by bright and gaudy colours that he will shoot down recklessly on to the pennants of ships as they flutter in the wind, swinging to and fro with the roll of the vessel. He soars to an immense height, like the eagle, and no telescope can match the sharpness of his eyesight. Up aloft he can see the smallest fish disporting itself on the surface of the water. Especially he looks out for flying-fish, and catches them in the air just as they are hovering on expanded fins above the waves, or else dives after them and seizes them down below. When he has caught a fish he soars aloft, and if the fish does not lie comfortably in his bill he drops it, and catches it again before it reaches the water; and he will do this repeatedly until the fish is in a convenient position for swallowing.

Our far-travelled storm-bird continues his long journey westwards, and his next resting-place is the Samoa Islands, which he recognises by their lofty volcanic cliffs, their tuff and lava, their beautiful woods and waterfalls, as much as 650 feet high, and surrounded by the most luxuriant vegetation. Over the copses of ferns, and climbing plants, and shrubs,

reminding one of India, flutter beautiful butterflies.

Around their oval huts, with roof of sugar-cane leaves and the floor inside covered with cocoa mats, are seen the yellowish-brown Polynesians, of powerful build and proud bearing. The upper parts of their bodies are bare, and they wear necklaces of shells and teeth, deck themselves with flowers and feathers, smear their bodies with cocoa oil, and tattoo themselves. Of a peaceful and happy disposition, they, too, have been disturbed by white men, and have been forced to cede their islands to Germany and the United States.

It rains abundantly on the Samoa Islands. Black clouds sink down towards the sea, violent waterspouts suck up the water in spiral columns which spread out above like the crowns of pine-trees, and deluges of rain come down, lasting sometimes for weeks. Everything becomes wet and sodden, and it is useless to try to light a fire with matches. Almost every year these islands are visited by sudden whirlwinds, which do great damage both on sea and land. Wreckage is thrown up on the shore, fields and plantations are destroyed, leaves fly like feathers from the cocoa palms, and if the storm is one of the worst kind, the trees themselves fall in long rows as if they had been mown down by a gigantic scythe.

The albatross knows of old the course of the great steamboat liners. He sees several steamers at the Samoa Islands, and afterwards on his flight to the Fiji Islands, and if the weather is overcast and stormy he leaves his fishing-grounds in the great ocean deserts and makes for some well-known steamer route. For in stormy weather he can find no soft cephalopods, but from a vessel refuse is thrown out in all

weathers. He knows that the Samoa Islands are in regular communication with the Sandwich Islands, and that from these navigation routes radiate out like a star to Asia, America, and Australia.

He sails proudly past the Fiji Islands. He does not trouble himself to make an excursion to the Solomon Islands and the world of islands lying like piers of fallen bridges on the way to the coast of Asia. Though New Caledonia is so near on the west, he is not attracted to it, as the French use it as a penal settlement.

Rather will he trim his wings for the south, and soon he sees the mountains on the northern island of New Zealand rise above the horizon. Among them stands Tongariro's active volcano with its seven craters, and north-east of it lies the crater lake Taupo among cliffs of pumice-stone. North of this lake are many smaller ones, round which steam rises from hot springs, and where many fine geysers shoot up, playing like fountains.

He sees that on the southern island the mountains skirt the western coast just as in Scandinavia, that mighty glaciers descend from the eternal snow-fields, and that their streams lose themselves in most beautiful Alpine lakes. He gives a passing glance at the lofty mountain named after the great navigator Cook, which is 12,360 feet high. On the plains and slopes shepherds tend immense flocks of sheep. The woods are evergreen. In the north grow pines, whose trunks form long avenues, and whose crowns are like vaultings in a venerable cathedral. There grow beeches, and tree-ferns, and climbing plants; but the palms come to an end half-way down the southern island, for the southernmost part of the island is too

cold for them.

Formerly both islands were inhabited by Maoris. They tattooed the whole of their bodies in fine and tasteful patterns, but were cannibals and stuck their enemies' heads on poles round their villages. Now there are only forty thousand of them left, and even these are doomed to extinction through white men—as in the struggle between the brown and black rats. Formerly the Maoris stalked about with their war clubs over their shoulders; now they work as day labourers in the service of the whites.

At last our albatross rises high above the coast and speeds swiftly southwards to the small island of Auckland. There he meets his mate, and for several days they are terribly busy in making ready their nest. They collect reeds, rushes, and dry grass, which they knit into a kind of high, round ball. The month of November is come and the summer has begun. In the southern hemisphere midsummer comes at Christmas and midwinter at the end of June. Then the albatrosses assemble in enormous flocks at Auckland and other small, lonely islands to breed.

Across Australia

There are still districts in the interior of the fifth continent which have never been visited by Europeans. There stretch vast sandy deserts and the country is very dry, for the rain of the south-east trade-wind falls on the mountain ranges of the east, where also the rivers flow. Fifty years ago very little was known of the interior of Australia, and a large reward was offered to the man who should first cross the continent from sea to sea.

Accordingly a big expedition was set on foot. It was equipped by the colony of Victoria. Large sums of money were contributed, and Robert Burke was chosen as leader. He was a bold and energetic man, but wanting in cool-headedness and the quiet, sure judgment necessary to conduct an expedition through unknown and desolate country.

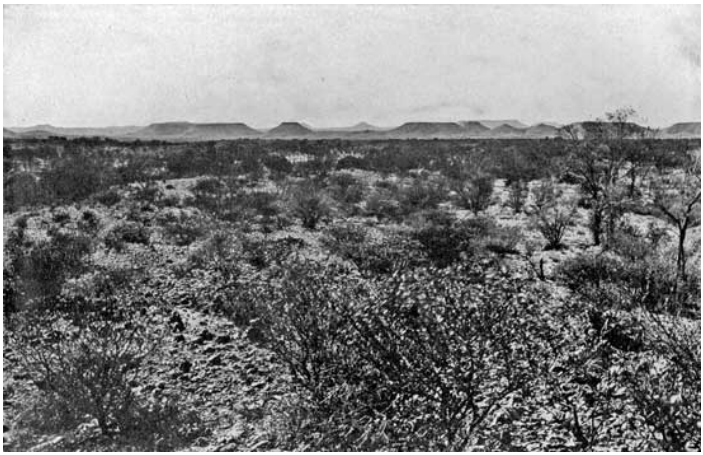


PLATE XXXVIII. COUNTRY NEAR LAKE EYRE.

Two dozen camels with their drivers were procured from north-west India. Provisions were obtained for a year, and all the articles purchased, even to the smallest trifles, were of the best quality money could buy. With such an equipment all Australia might have been explored little by little. When the expedition set out from Melbourne, the capital of Victoria, there was great enthusiasm; many people came out really to to look at the camels, for they had never seen this animal before, but most of them looked forward to a triumph in geographical exploration.

Burke was not alone. He had as many as fifteen Europeans with him. Some of them were men of science, who were to investigate the peculiar vegetation of the country, and the singular marsupials, the character of the rocks, the climate, and so on. One of them was named Wills. Others were servants, and had to look after the horses and transport.

The caravan started on August 20, 1860. That was the first mistake, for the heat and drought were then setting in. The men marched on undismayed, however, crossed Australia's largest river, the Murray, and came to its tributary, the Darling. There a permanent camp was pitched, and the larger part of the caravan was left there. Burke, Wills, and six other Europeans went on with five horses and sixteen camels towards the north-west, and in twenty-one days reached the river Cooper, which runs into Lake Eyre.

Here another camp was set up, several excursions were made in the neighbourhood, and a messenger was sent to the Darling to hurry up the men left behind. The messenger loitered, however, one week passed after another, and when nothing was heard of the men, Burke decided to march northwards with only three companions, Wills and the two servants King and Gray, six camels, two horses, and provisions for three months, and cross the continent to the coast of Queensland on the Gulf of Carpentaria. The other four were to remain with their horses and camels where they were until Burke came back, and were to leave the place only if absolutely obliged to do so.

All went well at first, but the country was

troublesome and rough, wild and undulating (Plate XXXVIII.). As long as the explorers followed the sandy bed of the Cooper River they found pools of water in sufficient numbers. At midday the temperature in the shade was 97°, but it fell at night to 73°, when they felt quite cold.

Then they passed from bed to bed of temporary streams, carrying water only in the rainy season, and there the usual pools of water remained in the shade of dense copses of grass-trees, boxwood and gum-trees or eucalyptus. The last named were evidently not of the same species as the world-renowned blue gum-tree which occurs in Victoria and Tasmania, for this dries up marshes and unhealthy tracts and grows to its height of 65 feet in seven years. But the giant gum-tree is still more remarkable, for it attains a height of over 400 feet, and another species of eucalyptus has reached 500 feet.

The party had also to cross dreary plains of sand and tracts of clay cracked by the drought, and there they had to have their leather sacks filled with water. Sometimes they saw flocks of pigeons flying northwards, and were sure of finding water soon if they followed in the same direction. At some places there had been rain, so that a little grass had sprung up; in others the saltbushes were perishing from drought.

The animal life was very scanty. In the brief notes of the expedition few forms are mentioned except pigeons and ducks, wild geese, pelicans and certain other waders, parrots, snakes, fishes, and rats. They saw no kangaroos—those curious jumping and springing animals which carry their young for seven months in a pouch on the belly, and are as peculiar

to Australia as the llama to South America; nor do the travellers speak of dingoes, the wild dogs of Australia, which are a terror to sheep farmers.

They saw Australian blacks clad with shields, long spears, and boomerangs, and nothing else. These naked, low-typed savages sometimes gave them fish in exchange for beads, matches, and other trifles. They were active as monkeys in the trees when they were hunting the beasts of the forest, but when they saw the camels they usually took to their heels. They had never seen such kangaroos before, with long legs both back and front, and also humpbacked.

After the travellers had crossed a hilly tract they had not far to go to the coast. From the last camp Burke and Wills marched through swamps and woods of palms and mangroves, but they never caught sight of the waters of the Gulf of Carpentaria. Forests hid them and swamps intervened when they were quite close to the shore. Burke had attained his aim: he had crossed Australia. But his exploit was of little use or satisfaction, least of all to himself, for his return was a succession of disasters, the most terrible journey ever undertaken in the fifth continent. Thunder, lightning, and deluges of rain marked the start southwards. The lightning flashes followed one another so closely that the palms and gum-trees were lighted up in the middle of the night as in the day. The ground was turned into a continuous swamp. In order to spare the camels, the tents had been left behind. Everything became moist, and the men grew languid; and when the rain ceased drought set in again and oppressive, suffocating heat, so that they longed for night as for a friend.

An emaciated horse was left behind. A snake eight

feet long was killed, and following the example of the savages they ate its flesh, but were sick after it. Once when they were encamping in a cave in a valley, a downpour of rain came, filled the valley, and threatened to carry away themselves and their camp. Mosquitoes tormented them, and sometimes they had to lose a day when the ground was turned into slough by the rain.

One man sickened and died, but on April 21 the three men were in sight of the camp where their comrades had been ordered to await their return. Burke thought that he could see them in the distance. How eager they were to get there! Here they would find all necessaries, and, above all, would be saved from starvation, which had already carried off one of the four.

But the spot was deserted. Not a living thing remained. There were only on a tree trunk the words "Dig. April 21." They digged and found a letter telling them that their comrades had left the place the same day, only a few hours before. Fortunately they found also a supply of flour, rice, sugar, and dried meat enough to last them until they reached a station inhabited by whites. But where were the clothes to replace their worn rags, which would scarcely hang together on their bodies? After four months of hard travelling and constant privations they were so overcome by weariness that every step was an effort, and now they had come to the camp only to find that their comrades had gone off the same day, neglecting their duty. Fate could not have treated them more cruelly.

Burke asked Wills and King whether they thought that they could overtake their comrades, but both

answered no. Their last two camels were worn out, whereas the animals of the other men were, according to the letter, in excellent condition. A sensible man would have tried to reach them, or at least have followed their trail, and this Wills and King wanted to do. But Burke proposed a more westerly route, which he expected would be better and safer, and which led to the town of Adelaide in South Australia. It ran past Mount Hopeless, an unlucky name.

All went well at first, as long as they had flour and rice and could obtain from the natives fish and *nardoo*, ground seeds of the clover fern. They even ate rats, roasting them whole on the embers, skin and all, and found them well flavoured. One camel died, and the other soon refused to move. He supplied them with a store of meat. But their provisions came to an end, and, what was worse, water ceased on the way to Mount Hopeless.

Then they decided to return to the abandoned camp. On the way they kept alive on fish which they sometimes procured from natives, having nothing else but *nardoo* seeds plucked from the clover fern. Half dead with hunger and weariness they came back to the camp.

Midwinter, the end of June, was come, and the nights were cold. It was decided that Burke and King should go out and look for natives. Wills was unable to go with them, and was given a small supply of seeds and water.

After two days slow travelling Burke could go no farther. King shot a crow, which they ate, but Burke's strength was exhausted. One evening he said to his servant, "I hope that you will remain with me until I

am really dead. Then leave me without burying me." Next morning he was dead.

Then King hurried back to Wills and found him dead also. The last words he had entered, four days before, in his journal were: "Can live four or five days longer at most, if it keeps warm. Pulse 48, very weak."

When the travellers were not heard of, the worst fears were entertained, and relief expeditions were despatched from Melbourne, Adelaide, and Brisbane, and in Sydney and other towns Burke's fate was discussed with anxiety. At length they found King, who had gained the confidence of the natives and had sojourned with them for two months, living as they did. He was unrecognisable and half out of his mind, but he recovered under the careful treatment he received. The two dead men were buried, Burke wrapped in the Union Jack. Later on his remains were carried to Melbourne, where a fine monument marks his grave. This is almost all that remains of an expedition which started out with such fair prospects, but which came to grief at the foot of Mount Hopeless.

VI

THE NORTH POLAR REGIONS

Sir John Franklin and the North-West

Passage

We have now surveyed the earth's mainland, islands, and seas. We have seen how man by his endurance and thirst for knowledge has penetrated everywhere, how he has wandered over the hottest deserts and the coldest mountains. The nearer we come to our own times, the more eager have explorers become, and we no longer suffer blank patches to exist on our maps. The most obstinate resistance to the advance of man has been presented by the Poles and their surroundings, where the margin of the eternal ice seems to call out a peremptory "Thus far shalt thou come, but no farther." But even the boundless ice-packs could not deter the bold and resolute seafarers. One vessel after another was lost, crew and all, but the icy sea was constantly ploughed by fresh keels. The North Pole naturally exercised the greater attraction, for it lies nearer to Europe, amidst the Arctic Ocean, which is enclosed between the coasts of Asia, Europe, and North America.

In the "forties" of last century, English and American explorers were occupied in searching for a north-west passage, or a navigable channel for vessels making by the shortest route from the North Atlantic to the Pacific Ocean. Let us look at the story of a famous expedition which set out to find this passage.

Sir John Franklin was an officer in the Royal Navy. He had led expeditions by land and sea, in both the northern and southern hemispheres, and in particular had mapped considerable areas of the north coast of America east of Behring Strait. Most of the coast of the mainland was thus known, and it remained only to find a channel between the large islands to the north of it. Such a passage must exist, but whether it

was available for navigation was another question. A number of learned and experienced men decided to send out a large and well-furnished expedition for the purpose of effecting the north-west passage. The whole English people took up the scheme with enthusiasm. Hundreds of courageous men volunteered for the voyage, and Admiral Sir John Franklin was appointed leader of the expedition, from which neither he nor any of his subordinates was ever to return.



THE NORTH POLAR REGIONS.

The ships chosen were the *Erebus* and *Terror*, which (as we shall see later) had already made a voyage to

South Polar regions, and which were now refitted from keel to topmasts. Captain Crozier was the second in command and captain of the *Terror*, while Franklin hoisted his flag on the *Erebus*, where Captain James was under him. The members of the expedition were chosen with the greatest care, and when they were all mustered, the vessels had on board twenty-three officers and a hundred and eleven men. Provisions were taken for three years, and the vessels were fitted with small auxiliary engines, which had never before been tried in Polar seas.

The constituted authorities drew up a plan which Franklin was to follow, but he was left free to act as he thought proper when circumstances demanded alterations. The main thing was to sail north of America from the Atlantic side and come out into the Pacific Ocean through Behring Strait.

The *Erebus* and *Terror* left England on May 19, 1845. All officers and men were full of the most lively expectations of success, and were resolved to do all in their power to achieve the object of the expedition. They passed the Orkney Islands and on Midsummer Day saw the southern extremity of Greenland, Cape Farewell, disappear to windward. Next day they encountered the first ice, huge floating icebergs of wild, jagged form or washed into rounded lumps by the action of the waves, and ten days later the ships anchored near Disko Island, on the west coast of Greenland. Here they met another vessel which had come up north with an additional store of provisions and equipment. Its captain, the last man who spoke with Franklin and the members of the expedition, said that he had never seen a finer set of men so well prepared and so eager for their work. He

thought that they could go anywhere.

On July 26 the *Erebus* and *Terror* were seen, for the last time, by an English whaler. After that day the fate of the most unfortunate of all Polar expeditions was involved in an obscurity much denser than that which surrounded Gordon in Khartum after the telegraph line was cut. What is known only came to light many years later through the relief expeditions that were sent out, or was communicated by parties of wandering Eskimos.

Meanwhile the voyage was continued north-westwards between two large islands into Lancaster Sound. Soon progress was delayed by masses of pack ice, and the engines were found to be so weak that they could be used only in smooth, open water. In another sound, to the north, the water was open, and here the ships managed to sail 150 miles before the ice set fast again. Then they passed through another open sound back to the south. Early autumn had now come, and all the hills and mountains were covered with snow and fresh ice was forming in the sound. Here Franklin laid the *Erebus* and *Terror* up for the winter, having found fairly sheltered anchorage at a small island.

What kind of life the men led on board during the long winter we do not know. We can only conjecture that the officers read and studied, and that the men were employed in throwing up banks of snow reaching up above the bulwarks to keep in the warmth; that snow huts were built on the ice and on land for scientific observations; and that a hole was kept open day and night that water might always be procurable in case of fire when the pumps were frozen into pillars of ice. When the long night was

over and February came with a faint illumination to the south, and when the sky grew brighter day by day till at last the expedition welcomed the return of the sun, probably men and officers made excursions to the neighbouring islands to hunt. Their hopes revived with the increasing light. Only 260 miles of unknown coast remained of the north-west passage, and they believed that the New Year would see them return home. The sun remained longer and longer above the horizon, and at last the long Polar day commenced.

When the *Erebus* and *Terror* were released in late summer from their prison of ice, and the small island could at last be left, three sailors remained on the beach. Their gravestones, carved with a few simple words, were found five years later by a relief expedition, and they constitute the only proof that Franklin wintered at this particular spot.

To the south lay an open channel, and this southern passage must in time bend to the west. Mile after mile the vessels sailed southwards, carefully avoiding the drifting ice. East and west were seen the coasts of islands, and in front, in the distance, could be descried King William Land, a large island which is the nearest neighbour to the mainland. The north-west passage was nearly accomplished, for it was now only about 120 miles westward to coasts already known. How hopelessly long this distance seemed, however, when the vessels were caught in the grip of the ice only a day or two later! Firmer and firmer the ice froze and heaped itself up round the *Erebus* and *Terror*; the days became shorter, the second winter drew on with rapid strides, and preparations to meet it were made as in the preceding year. The vessels lay frozen in on the

seventieth parallel, or a little south of the northernmost promontory of Scandinavia; but here there was no Gulf Stream to keep the sea open with its warm water. Little did the officers and crew suspect that the waves would never again splash round the hulls of the *Erebus* and *Terror*.

We can well believe that they were not so cheerful this winter as in the former. The vessels were badly placed in the ice, in an open roadstead without the shelter of a coast. They lay as in a vice, and the hulls creaked and groaned under the constant pressure. Life on board such an imprisoned vessel must be full of unrest. The vessel seems to moan and complain, and pray that it may escape to the waves again. The men must wonder how long it will hold out, and must be always prepared for a deafening crash when the planks will give way and the ship, crushed like a nutshell, will sink at once. But worst of all is the darkness when the sun sets for the last time.

However, the winter passed at last, and the sun came back. It grew gradually light in the passages below deck, and it was no longer necessary to light a candle to read by in the evening. Soon there was no night at all, but the sun shone the whole twenty-four hours, and all the brighter because the vessels were surrounded by nothing but ice and snow. Far to the south and east were seen the hills on King William Land. If only the ice would release its hold and begin to drift! But the pack-ice still remained to the westward, and it was possible of course that the vessels had been damaged by the pressure.

Two officers with six men undertook a journey to the south coast of King William Land, whence the mainland of North America could be descried in

clear weather. At their turning-point they deposited in a cairn a narrative of the most important events that had happened on board up to date. This small document was found many years after. The little party returned with good news and bright hopes, but found sorrow on the ships. Admiral Franklin lay on his deathbed. The suspense had lasted too long for him. He just heard that the north-west passage had been practically discovered, and died a few days later, in June, 1847. This was fortunate for him. His life had been a career of manliness and courage, and he might well go to sleep with a smile of victory on his lips. But we can imagine the gloom cast upon the expedition by the death of its leader.

It was now the season when the ice begins to move, and open water may be expected. No doubt they made excursions in all directions to find out where the surge of the salt sea was nearest. Perhaps they resorted to ice saws and powder to get out, but in vain; the ice held them fast. However, they were delighted to find that the whole pack was moving southwards. Could they reach the mainland in this way? A great American company, named after Hudson's Bay, had small trading-posts far in the north. If they could only reach one of them they would be saved.

Autumn came on, and their hope of getting free was disappointed. To try and reach the mainland now when winter was approaching was not to be thought of, for in winter no game is to be found in these endless wastes, and a journey southwards meant therefore death by starvation. In summer, on the other hand, there was a prospect of falling in with reindeer and musk oxen, those singular Polar animals as much like sheep as oxen, which live on lichens

and mosses and do not wander farther south than the sixtieth parallel. In the western half of North America the southern limit of the musk ox coincides with the northern limit of trees. A herd of twenty or thirty musk oxen would have saved Franklin's distressed mariners. If they could only have found Polar bears, or, even better, seals or whales, with their thick layer of blubber beneath the hide; and Arctic hares would not have been despised if in sufficient numbers! But the season was too far advanced, and the wild animals had retreated before the cold and the abundant snow which covered their scanty food. No doubt the officers deliberated on the plan they should adopt. They had maps and books on board and knew fairly accurately how far they had to travel to the nearest trading-posts of the Hudson's Bay Company, and on the way they had every prospect of finding game and meeting Eskimos. It was decided to pass the third winter on board.

The cold increased day by day, and the length of the days became shorter. The sun still rose, described a flat arch to the south, and sank after an hour and a half. Soon the days lasted only half an hour, until one day they had only a glimpse of the sun's upper curve glittering for a moment like a flashing ruby above the horizon. Next day there was twilight at noon, but at any rate there was a reflection of the sunset red. During the following weeks the gloominess became more and more intense. At noon, however, there was still a perceptible light, and the blood-red streak appeared to the south, throwing a dull purple tinge over the ice-pack. Then this dim illumination faded away also, and the Polar night, which at this latitude lasts sixty days and at the North Pole itself six months, was come, and the stars sparkled like torches on the bluish-black background

even when the bell struck midday in the officers' mess.

Those who for the first time winter in high northern latitudes find a wonderful charm even in the Polar night. They are astonished at the deep silence in the cold darkness, at the rushing, moaning howl of the snowstorms, and even at the overwhelming solitude and the total absence of life. Nothing, however, excites their astonishment and admiration so much as the "northern lights." We know that the magnetic and electric forces of the earth time after time envelop practically the whole globe in a mantle of light, but this mysterious phenomenon is still unexplained. Usually the aurora is inconstant. It flashes out suddenly, quivers for a moment in the sky, and then grows pale and vanishes. Most lasting are the bow-shaped northern lights, which sometimes stretch their milk-white arches high above the horizon. It may be that only one half of the arch is visible, rising like a pillar of light over the field of vision. Another time the aurora takes the form of flames and rays, red below and green above, and darting rapidly over the sky. Farther north the light is more yellowish. If groups of rays seem to converge to the same point, they are described as an auroral crown. Beautiful colours change quickly in these bundles of rays, but exceedingly seldom is the light as strong as that of the full moon. The light is grandest when it seems to fall like unrolled curtains vertically down, and is in undulating motion as though it fluttered in the wind.

To the sailors in the ice-bound ships, however, the northern lights had lost their fascination. Enfeebled and depressed, disgusted with bad provisions, worn out with three years' hardships, they lay on their

berths listening to the ticking of their watches. The only break in their monotonous existence was when a death occurred. The carpenter had plenty of work, and Captain Crozier knew the funeral service by heart. Nine officers and eleven of the crew died during the last two winters, and certainly a far greater number in the third. This we know from a small slip of paper well sealed up and deposited in a cairn on the coast, which was found eleven years afterwards.

At length the months of darkness again came to an end. The red streak appeared once more in the south, and it gradually grew lighter. Twilight followed in the footsteps of darkness, and at last the first sun's rays glistened above the horizon. Then the men awakened once more to new hope; Brahmins on the bank of the Ganges never welcomed the rising sun with more delight.

With increasing daylight came greater opportunity and disposition to work. Several sledges were made ready, heavy and clumsy, but strong. Three whale-boats, which for three years had hung fast frozen to the davits, were loosened and hauled on to the ice. The best of the provisions still remaining in the store-room were taken out, and great piles of things were raised round the boats. When everything to be taken was down on the ice, the stores, tents, instruments, guns, ammunition, and all the other articles were packed on the sledges. The three whale-boats were bound with ropes, each on a separate sledge, and a sledge with a comfortable bed was assigned to the invalids. During all this work the days had grown longer, and at last the men could no longer control their eagerness to set out. This early start sealed their fate, for neither game nor Eskimos

come up so far north till the summer is well advanced, and even with the sledges fully laden, their provisions would last only forty days.

On April 22, 1848, the signal for departure was given, and the heavy sledges creaked slowly and in jerks over the uneven snow-covered ice. Axes, picks, and spades were constantly in use to break to pieces the sharp ridges and blocks in the way. The distance to King William Land was only 15 miles, yet it took them three days to get there. The masts and hulls of the *Erebus* and *Terror* grew smaller all too slowly, but they vanished at last. Captain Crozier perceived that it was impossible to proceed in this manner, so all the baggage was looked through again and every unnecessary article was discarded. At this place one of the relief expeditions found quantities of things, uniform decorations, brass buttons, metal articles, etc., which no doubt had been thought suitable for barter with Eskimos and Indians.

With lightened sledges, they marched on along the west coast. They had not travelled far when John Irving, lieutenant on the *Terror*, died. Dressed in his uniform, wrapped in sailcloth, and with a silk handkerchief round his head, he was interred between stones set on end and covered with a flat slab. On his head was laid a silver medal with an inscription on the obverse side, "Second prize in Mathematics at the Royal Naval College. Awarded to John Irving, Midsummer, 1830." Owing to the medal the deceased officer was identified long after, and so in time was laid to rest in his native town.

Two bays on the west coast of King William Land have been named after the unfortunate ships. At the shore of the northern, Erebus Bay, the strength of the

English seamen was so weakened that they had to abandon two of the boats, together with the sledges on which they had been drawn so far uselessly. At their arrival at Terror Bay the bonds of comradeship were no longer strong enough to keep the party together, or it may be that they agreed to separate. They were now less than a hundred men. At any rate, they divided into two parties, probably of nearly equal strength. The one, which evidently consisted of the more feeble, turned back towards the ships, where at least they would obtain shelter against wind and weather, and where there were provisions left. The other continued along the south coast with the whale-boat, and intended to cross to the mainland and try to reach the Great Fish River. No doubt, when they had been succoured themselves, they meant to return to their distressed comrades.

Terrible must have been the march of the returning party, and terrible also that of those who went on. Of the former we know next to nothing. The latter marched and marched, dragging their heavy sledges after them till they died one after another. There was no longer any thought of burying the dead. Every one had to take care of himself. If a dying man lagged behind, the others could not stop on his account. Some died as they were walking: this was proved afterwards by the skeletons which were found lying on their faces. Not a trace of game was found in May and June on the island, and they dragged their heavy ammunition boxes and guns to no purpose, not firing a shot.

Now the small remnant waited only for open water to cross the sound to the mainland. At the beginning of June the ice broke up, and it may be taken for

granted that at this time the survivors actually crossed, for the boat was afterwards found in a bay called Starvation Cove. If only the boat had been found here, it might have been drifted over by wind and waves; but skeletons and articles both in and outside the boat were found, showing that it was manned when it passed over the sound and when it landed.

Many circumstances connected with this sad journey are mysterious. Why did the men drag the heavy whale-boat with them for two months when they must have seen the mainland to the south the year before, on the excursion which they undertook when the Admiral was lying on his deathbed? Where the sound is narrowest it is only three miles broad; and, besides, they could have crossed anywhere on the ice. But as all died and as not a line in a diary came to light, we know nothing about it.

When no news was heard of Franklin after two years, the first relief expeditions were sent out. Time passed, and it became still more certain that he was in need of help. In the autumn of 1850 fifteen ships were on the outlook for him. The most courageous and energetic of all, who for years would not give up hope of seeing him again, was Franklin's wife. She spent all her means in relief work. In the course of six years the English Government disbursed £890,000 in relief expeditions. Most of them were useless, for when they set out the disaster had already taken place. One expedition which sailed in 1848 was caught in the ice, and resorted to a singular means of sending information to the distressed men, wherever they might be. About a hundred foxes were caught and fitted with brass collars, in which a short description of the position of

the relief ship was engraved, and then the foxes were let loose again.

In 1854 the names of Franklin, Crozier, and all the other men were removed from the muster roll of the Royal Navy. A statue of Franklin was set up in his native town, and a memorial of marble was erected in Westminster Abbey with the words of Tennyson:

Not here! the white North has thy bones; and thou
Heroic sailor-soul,
Art passing on thine happier voyage now
Toward no earthly pole.

The Voyage of the "Vega"

A brilliant remembrance of the Arctic Ocean is the pride of the Swedes. The north-west passage had been discovered by Englishmen; but the north-east passage, which for 350 years had been attempted by all seafaring nations, was not yet achieved. By a series of voyages to Spitzbergen, Greenland, and the Yenisei, Adolf Nordenskiöld had made himself an experienced Polar voyager. He perfected a scheme to sail along the north coasts of Europe and Asia and through the Behring Strait out into the Pacific Ocean. His plan, then, was nothing less than to circumnavigate Asia and Europe, an exploit which had never been performed and which the learned declared to be impossible. It was thought that the ice-pack always lay pressed up against the Siberian coast, rendering it impossible to get past; parts had been already sailed along and stretches of coasts were known, but to voyage all the way to the Behring Strait was out of the question.

Now Nordenskiöld reasoned that the ice must begin

to drift in summer, and leave an open channel close to the land. The great Siberian rivers, the Obi, the Yenisei, and the Lena, bring down volumes of warm water from southern regions into the Arctic Ocean. As this water is fresh, it must spread itself over the heavier sea water, and must form a surface current which keeps the ice at a distance and the passage open. Along the ice-free coast a vessel could sail anywhere and pass out into the Pacific Ocean before the end of summer.

Accordingly he made ready for a voyage in which the *Vega* was to sail round Asia and Europe and carry his name to the ends of the earth. The *Vega* was a whaler built to encounter drift ice in the northern seas. A staff of scientific observers was appointed, and a crew of seventeen Swedish men-of-war's men were selected. The *Vega* was to be the home of thirty men, and provisions were taken for two years. Smaller vessels were to accompany her for part of the voyage, laden with coal.

The *Vega* left Carlskrona in June, 1878, and steamed along the coast of Norway, past the North Cape, towards the east. The islands of Novaia Zemlia were left behind, the waters of the Obi and Yenisei splashed against the hull, no drift ice opposed the passage of the Swedish vessel, and on August 19 Cape Cheliuskin, the most northern point of the Old World, was reached.

Farther east the coast was followed to Nordenskiöld Sea. Great caution was necessary, for the fairway was shallow, and the *Vega* often steamed across bays which were represented as land on maps. The delta of the Lena was left behind, and to the east of this only small rivers enter the sea. Nordenskiöld

therefore feared that the last bit of the voyage would be the hardest, for open water along the coast could not be depended upon. At the end of August the most westerly of the group called the New Siberia Islands was sighted. The *Vega* could not go at full speed, for the sea was shallow, and floating fragments of ice were in the way. The prospects became brighter again, however, open water stretching for a long distance eastwards.

On September 6 two large skin boats appeared, full of fur-clad natives who had rowed out from land. All the men on the *Vega*, except the cook, hastened on deck to look at these unexpected visitors of Chukchi race. They rushed up the companion ladder, talking and laughing, and were well received, being given tobacco, Dutch clay pipes, old clothes, and other presents. None of the *Vega* men understood a word they said, but the Chukchis chattered gaily all the same, and with their hands full of presents tumbled down to their boats again and rowed home.

Two days later the *Vega* was in the midst of ice and fog, and had to be moored to a floe near land. Then came more Chukchis, who pulled the Swedes by the collar and pointed to the skin tents on land. The invitation was accepted with pleasure by several of the *Vega* men, who rowed to land and went from tent to tent. In one of them reindeer meat was boiling in a cast-iron pot over the fire. Outside another two reindeer were being cut up. Each tent contained an inner sleeping-room of deerskin, which was lighted and warmed by lamps of train oil. There played small stark-naked children, plump and chubby as little pigs, and sometimes they ran in the same light attire out over the rime between the tents. The tiniest were carried, well wrapped up in furs, on the

backs of their fathers and mothers, and whatever pranks they played these small wild cats never heard a harsh word from their elders.

The next day the *Vega* tried to continue her voyage, but the fog was too dense, and the shelter of a mass of ground ice had again to be sought. Nordenskiöld was, however, sure of gaining the Pacific Ocean in a short time, and when fresh visitors came on board he distributed tobacco and other presents among them with a lavish hand. He also distributed a number of *krona*[21] pieces and fifty earrings which, if any misfortune happened to the *Vega*, would serve to show her course.

During the following days the ice closed up and fog lay dense over the sea. Only now and then could the vessel sail a short distance, and then was stopped and had to moor again. On September 18 the vessel glided gently and cautiously between huge blocks of grounded ice like castle walls and towers of glass. Here patience and great care were necessary, for the coast was unknown and there was frequently barely a span of water beneath the keel. The captain stood on the bridge, and wherever there was a gap between the ice-blocks he made for it. It was only possible to sail in the daytime, and at night the *Vega* lay fastened by her ice anchors. One calm and fine evening some of our seafarers went ashore and lighted an enormous bonfire of driftwood. Here they sat talking of the warm countries they would sail past for two months. They were only a few miles from the easternmost extremity of Asia at Behring Strait.

The *Vega* had anchored on the eastern side of Koliuchin Bay. It was September 28. Newly formed

ice had stretched a tough sheet between the scattered blocks of ground ice, and to the east lay an ice-belt barely six miles broad. If only a south wind would spring up, the pack would drift northwards, and the last short bit of the north-east passage would be traversed.

But the Fates decreed otherwise. No wind appeared, the temperature fell, and the ice increased in thickness. If the *Vega* had come a few hours sooner, she would not have been stopped on the very threshold of the Pacific Ocean. And how easily might these few hours have been saved during the voyage! The *Vega* was entrapped so unexpectedly in the ice that there was not even time to look for safe and sheltered winter quarters. She lay about a mile from the coast exposed to the northern storms. Under strong ice pressure she might easily drift southwards, run aground, capsize, or be crushed.

The ice-pack became heavier in all directions, and by October 10 the Chukchis were able to come out on foot to the vessel. Preparations were made for the winter. High banks of snow were thrown up around, and on the deck a thick layer of snow was left to keep the heat in. From the bridge to the bow was stretched a large awning, under which the Chukchis were received daily. It was like a market-place, and here barter trade was carried on. A collection of household utensils, implements of the chase, clothes, and indeed everything which the northern people made with their own hands, was acquired during the winter.

The *Vega* soon became quite a rendezvous for the three hundred Chukchis living in the neighbourhood, and one team of dogs after another came daily

rushing through the snow. They had small, light sledges drawn by six to ten dogs, shaggy and strong, but thin and hungry. The dogs had to lie waiting in the snow on the ice while their masters sat bargaining under the large awning. At every baking on board special loaves were made for the native visitors, who would sit by the hour watching the smith shaping the white hot iron on his anvil. Women and children were regaled with sugar and cakes, and all the visitors went round and looked about just as they liked on the deck, where a quantity of articles, weapons, and utensils lay about. Not the smallest trifle disappeared. The Chukchis were honest and decent people, and the only roguery they permitted themselves was to try and persuade the men of the *Vega* that a skinned and decapitated fox was a hare. When it grew dusk the fur-clad Polar savages went down the staircase of ice from the deck, put their teams in order, took their seats in the sledges, and set off again over the ice to their tents of reindeer skins.

The winter was stormy and severe. Clouds of snow swept over the ice, fine and dry as flour. Again and again the cold scene was lighted up by the arcs of the aurora. In the middle of December the planks in the sides of the *Vega* cracked as the ice pressed against her. If the pressure had been bad, the vessel might have been broken to pieces and have sunk in a few minutes. It would not have been so serious for the crew as in the case of the *Erebus* and *Terror*, for here there were people far and near. But to ensure a safe retreat, the men of the *Vega* carried to the nearest shore provisions, guns, and ammunition to last a hundred men for thirty days. These things were all stacked up into a heap covered with sails and oars. No watch was kept at the depôt, and though the

Chukchis knew that valuable goods lay under the sails, they never touched a thing.

Near the *Vega* two holes were kept always open. In one the captain observed the rise and fall of the tide; the other was for water in case of fire. A small seal splashed for a long time in one of the holes and came up on to the ice after fishing below. One day his retreat was cut off and he was caught and brought up on deck. When fish bought from the Chukchis had been offered him in vain, he was let loose in the hole again and he never came back.

A house of ice was erected for the purpose of observing the wind and weather, and a thermometer cage was set up on the coast. Men took turns to go out, and each observer remained six hours at the ice-house and the cage to read off the various instruments. It was bitterly cold going out when the temperature fell to-51°, but the compulsory walk was beneficial. One danger was that a man might lose his way when snowstorms raged in the dark winter nights, so a line was stretched the whole way, supported on posts of ice, and with this guide it was impossible to go astray.

Then came Christmas, when they slaughtered two fat pigs which had been brought on purpose. The middle deck was swept out, all the litter was cleared away, and flags were hung round the walls and ceiling. The Chukchis brought willow bushes from the valleys beyond the mountains to the south, and branches were fastened round a trunk of driftwood. This was the *Vega's* Christmas tree, and it was decked with strips of coloured paper and small wax candles. Officers and men swung round in merry dance beneath flaming lanterns suspended from the roof.

Two hundred Christmas boxes were found packed on board, parting gifts of friends and acquaintances. For these lots were drawn, and many amusing surprises excited general hilarity. So the polka was danced on the deck, while cold reigned outside and snow whizzed through the frozen rigging. For supper there was ham and Christmas ale, just as at home in Sweden. Old well-known songs echoed through the saloon, and toasts were given of king and country, officers and men, and the fine little vessel which had carried our Vikings from their home in the west to their captivity in the shore ice of Siberia.

The winter ran its course and the days lengthened in the spring. Cold and continual storms were persistent. Even a Chukchi dog can have too much of them. One day at the end of February a Chukchi who had lost his way came on board, carrying a dog by the hind legs. The man had lost his way on the ice, and had slept out in the cold with his dog. A capital dinner was served for him on the middle deck, and the dog was rolled about and pommelled till he came to life again.

During the spring the *Vega* explorers made several longer or shorter excursions with dog sledges and visited all the villages in the country. Of course they became the best of friends with the Chukchis. The language was the difficulty at first, but somehow or other they learned enough of it to make themselves understood. Even the sailors struggled with the Chukchi vocabulary, and tried to teach their savage friends Swedish. One of the officers learned to speak Chukchi fluently, and compiled a dictionary of this peculiar language.

Summer came on, but the ground was not free from

ice until July. The *Vega* still lay fast as in a vice. On July 18 Nordenskiöld made ready for another excursion on land. The captain had long had the engines ready and the boilers cleaned. Just as they were sitting at dinner in the ward-room they felt the *Vega* roll a little. The captain rushed up on deck. The pack had broken up and left a free passage open. "Fire under the boilers!" was the order, and two hours later, at half-past three o'clock, the *Vega* glided under steam and sail and a festoon of flags away from the home of the Chukchis.

Farther east the sea was like a mirror and free of ice beneath the fog. Walruses raised their shiny wet heads above the water, in which numerous seals disported themselves. With the wildest delight the *Vega* expedition sailed southwards through Behring Strait. In the year 1553 a daring Englishman had commenced the quest of the north-east passage and had perished with all his men, and during the following centuries numberless other expeditions had tried to solve the problem, but always in vain; now it was solved by Swedes. The vessel glided out into the Pacific Ocean without a leak; not a man had been lost and not one had been seriously ill. It was one of the most fortunate and most brilliant Polar voyages that had ever been achieved.

Yokohama was the first port, where the *Vega* was welcomed with immense jubilation, and then the homeward journey *via* the Suez Canal and Gibraltar became a continuous triumphal procession.

Nansen

From many signs around the northern cap of the world a young Norwegian, Fridtjof Nansen, came to

the conclusion that a constant current must flow from the neighbourhood of Behring Strait to the east coast of Greenland.

Nansen resolved to make use of this current. Others had gone up from the Atlantic side and been driven back by the current. He would start from the opposite side and get the help of the current. Others had feared and avoided the pack-ice. He would make for it and allow himself to be caught in it. Others had sailed in unsuitable vessels which had been crushed like nut-shells among the floes. He would build a vessel with sides sloping inwards which would afford no hold to the ice. The more the ice pressed the more surely would this ship be lifted up out of the water and be borne safely on the ice with the current.

The progress would be slow, no doubt, but the expedition would see regions of the world never before visited, and would have opportunities of investigating the depth of the sea, the weather and winds. To reach the small point called the North Pole was in Nansen's opinion of minor importance.



PLATE XXXIX. THE "FRAM."

Among the many who wished to go with him he chose the best twelve. The vessel was christened the *Fram* (Plate XXXIX.), and the captain was named Sverdrup. He had been with Nansen before on an expedition when they crossed the inland ice of Greenland from coast to coast. They took provisions for five years and were excellently equipped.

The first thing was to reach the New Siberia Islands. To those the *Vega* had shown the way, and the *Fram* had only to follow in her track. Just to the west of them a course was steered northwards, and soon the vessel was set fast in the ice and was lifted satisfactorily on to its surface without the smallest leak. So far everything had gone as Nansen anticipated, and the experienced Polar voyagers who had declared that the whole scheme was madness had to acknowledge that they were not so clever as they thought.

We have unfortunately no time to accompany the voyagers on their slow journey. They got on well, and were comfortable on board. The ice groaned and cracked as usual, but within the heavy timbers of the *Fram* there was peace. The night came, long, dark, and silent. Polar bears stalked outside and were often shot. Before it became quite dark Nansen tried the dogs at drawing sledges. They were harnessed, but when he took his seat, off they went in the wildest career. They romped over blocks and holes, and Nansen was thrown backwards, but sat fast in the sledge and could not be thrown out. In time the driving went better, and the poor, faithful animals had always to go on sledge excursions. Two were seized by Polar bears and two were bitten to death

by their comrades. One fine day, however, puppies came into the world in the midst of the deepest darkness. When they first saw the sun they barked furiously.

The *Fram* drifted north-west just as Nansen had foreseen, passing over great depths where the two thousand fathom line did not reach the bottom. Christmas was kept with a Norwegian festival, and when the eightieth parallel was crossed a tremendous feast was held; but the return of the sun on February 20 excited the greatest delight. The spring and summer passed without any remarkable events. Kennels were erected on the ice out of boxes, and more puppies came into the world. Possibly these were as much astonished at the winter darkness as their cousins had been at seeing the sun.

Nansen had long been pondering on a bold scheme—namely, to advance with dog sledges as far as possible to the north and then turn southwards to Franz Josef Land. The ship was meanwhile to go on with the drift and the usual observations were to be taken on board. Only one man was to go with him, and he chose Lieutenant Johansen. He first spoke to him about the scheme in November, 1894. It was, of course, a matter of life or death, so he told Johansen to take a day or two to think it over before he gave his answer. But the latter said "Yes" at once without a moment's hesitation. "Then we will begin our preparations to-morrow," said Nansen.

All the winter was spent in them. They made two "kayaks," each to hold a single man, somewhat larger and stronger than those the Eskimos use when they go fishing or seal-hunting. With a frame of ribs and covered with sailcloth these canoes weighed only

thirty pounds. They were covered in all over, and when the boatman had taken his seat in the middle and made all tight around him, seas might sweep right over him and the kayak without doing any harm. A dog sledge, harness, a sleeping-bag for two, skis, staffs, provisions, oil cooking-stove—all was made ready.

The start took place at the turn of the year, when the most terrible ice pressure broke loose on all sides threatening the *Fram*. Mountains of ice-blocks and snow were thrust against the vessel, which was in danger of being buried under them. The sea water was forced up over the ice and the dogs were nearly drowned in their kennels and had to be rescued quickly. Banks of ice were pushed against the vessel, rolled over the bulwarks, and weighed down the awning on the deck; and it was pitch dark, so that they could not find out where danger threatened. They had, however, stored provisions for two hundred days in a safe place. By degrees the ice came to rest again and the great rampart was digged away.

Twice did Nansen and Johansen set out northwards, only to come back again. Once a sledge broke, and on the other occasion the load was too heavy. On March 14 they left the *Fram* for the last time and directed their steps northward. They had three sledges and twenty-eight dogs, but they themselves walked on skis and looked after their teams. At first the ice was level and the pace was rapid, but afterwards it became lumpy and uneven, and travelling was slow, as first one sledge and then another stuck fast.

After two marches the temperature fell to-45°, and it

was very cold in the small silk tent. They were able to march for nine hours, and when the ice was level it seemed as if the endless white plains might extend up to the Pole. So long as they were travelling they did not feel the cold, but the perspiration from their bodies froze in their clothes, so that they were encased in a hauberk of ice which cracked at every step. Nansen's wrists were made sore by rubbing against his hard sleeves, and did not heal till far on in the summer.

They always looked out for some sheltered crevice in the ice to camp in. Johansen looked after the dogs and fed them, while Nansen set up the tent and filled the pot with ice. The evening meal was the pleasantest in the day, for then at any rate they were warmed inside. After it they packed themselves in their sleeping bag, when the ice on their clothes melted and they lay all night as in a cold compress. They dreamed of sledges and dog teams, and Johansen would call out to the dogs in his sleep, urging them on. Then they would wake up again in the bitter morning, rouse up the dogs, lying huddled up together and growling at the cold, disentangle the trace lines, load the sledges, and off they would go through the great solitude.

Only too frequently the ice was unfavourable, the sledges stuck fast, and had to be pushed over ridges and fissures. They struggle on northwards, however, and have travelled a degree of latitude. It is tiring work to march and crawl in this way, and sometimes they are so worn out that they almost go to sleep on their skis while the dogs gently trot beside them. The dogs too are tired of this toil, and two of them have to be killed. They are cut up and distributed among their comrades, some of whom refuse to turn

cannibals.

When the ice became still worse and the cold white desert looked like a heap of stones as far northwards as the eye could see, Nansen decided to turn back. It was impossible to find their way back to the *Fram*, for several snowstorms had swept over the ice obliterating their tracks. The only thing to do was to steer a course for the group of islands called Franz Josef Land. It was 430 miles off, and the provisions were coming to an end; but when the spring really set in they would surely find game, and they had for their two guns a hundred and eighty cartridges with ball and a hundred and fifty with shot. The dogs had the worst of it; for them it was a real "dog's life" up there. The stronger were gradually to eat up the weaker.

So they turned back and made long marches over easy ice. One day they saw a complete tree trunk sticking up out of the ice. What singular fortunes it must have experienced since it parted from its root! At the end of April the spoor of two foxes was seen in the snow. Was land near, or what were these fellows doing out here on the ice-covered sea? Two days later a dog named Gulen was sacrificed. He was born on the *Fram*, and during his short life had never seen anything but snow and ice; now he was worn out and exhausted, and the travellers were sorry to part from the faithful soul.

Open water, sunlit billows! How delightful to hear them splash against the edge of the ice! The sound seemed to speak of spring and summer, and to give them a greeting from the great ocean and the way back home. More tracks of foxes indicated land, and they looked out for it daily. They did not suspect that

they had to travel for three months to the nearest island.

At the beginning of May only sixteen dogs were left. Now the long summer day commenced in the Arctic Ocean, and when the temperature was only twenty degrees below freezing point they suffered from heat. But the ice was bad, and they had to force the sledges over deep channels and high hummocks thrust up by pressure. After great difficulties they staggered along on skis. The work became heavier for the dogs as fewer were left, but the provisions also diminished.

A furious snowstorm compelled them to remain in a camp. There they left one of the sledges, and some broken skis were offered to the flames and made a grand fire. Six dogs could still be harnessed to each of the two remaining sledges.

At the end of May they came to an expanse of ice intersected by a network of channels with open water, which blocked the way. Now animal life began to appear with the coming of summer. In a large opening were seen the grey backs of narwhals rolling over in the dark-blue water. A seal or two were seeking fish, and tracks of Polar bears made them long for fresh meat. Nansen often made long excursions in front to see where the ice was best. Then Johansen remained waiting by the sledges, and if the bold ski-runner were long away he began to fear that an accident had happened. He dared not pursue his thoughts to an end—he would then be quite alone.

June comes. The scream of ivory gulls pierces the air. The two men remain a week in a camp to make their kayaks seaworthy. They have still bread for quite a

month. Only six dogs are left; when only three remain they will have to harness themselves to the sledges.

In a large strip of open water they shoved out the kayaks, fastened them together with skis, and paddled them along the margin of the ice. On the other side they shot two seals and three Polar bears, and therefore had meat for a long time. The last two dogs, too, could eat their fill.

At last the land they longed for appeared to the south, and they hastened thither, a man and a dog to each sledge. Once they had again to cross a strip of open water in kayaks, Nansen was at the edge of the ice when he heard Johansen call out, "Get your gun." Nansen turned and saw that a large bear had knocked Johansen down and was sniffing at him. Nansen was about to take up his gun when the kayak slipped out into the water, and while he was hauling and pulling at it he heard Johansen say quite quietly, "You must look sharp if you want to be in time." So at last he got hold of his gun, and the bear received his death-wound.

For five months they had struggled over the ice, when at the beginning of August they stood at the margin of the ice and had open water before them off the land. Now the sea voyage was to begin, and they had to part with their last two dogs. It was a bitter moment. Nansen took Johansen's dog and Johansen Nansen's, and a couple of bullets were the reward of their faithfulness.

Now they travelled more easily and quickly. The kayaks were fastened together, and with masts and sails they skimmed past unknown islands. Heavy seas forced them to land on one of them. Just as they

drew up their kayaks a white bear came waddling along, got scent of them, and began to sniff along their track. To our travellers his visit meant provisions for a long time. Nansen and his travelling companion took possession of their new territory, wandered over the island, and returned to their dinner of bear, which did them good. Next day they looked for a suitable dwelling-place. As they could not find a cave, they built a small stone cabin, which they roofed with skis and the silk tent. Light and wind came in on all sides, but it was comfortable enough and the meat pot bubbled over a fire of fat.

Nansen decided to remain on this island for the winter. The islands they had hitherto seen were unlike any of the known parts of Franz Josef Land, and Nansen did not know exactly where he was. It was impossible to venture out on the open sea in the kayaks. It was better to lay in a supply of food for the winter, for when darkness came all the game would disappear. First of all they must build a comfortable hut. There was plenty of stone and moss, a trunk of driftwood found on the beach would form a roof ridge, and if they could only get hold of a couple of walruses, their roofing would be provided.

A large male walrus was lying puffing out in the water. The kayaks were shoved out and lashed together, and from them the colossus was bombarded. He dived, but came up under the boats, and the whole contrivance was nearly capsized. At last he received his death-wound, but just as Nansen was about to strike his harpoon into him he sank. They had better luck, however, with two others which lay bellowing on the ice and gradually went to sleep, unconscious that their minutes were numbered. Nansen says that it seemed like murder to

shoot them, and that he never forgot their brown, imploring, melancholy eyes as they lay supporting their heads on their tusks and coughing up blood. Then the great brutes were flayed, and their flesh, blubber, and hides carried into the hut. When they brought out the sledges and knives, Nansen thought it might be as well to take the kayaks with them also. And that was fortunate, for while they stood cutting up as in a slaughter-house, a strong, biting land wind sprang up, their ice-floe parted from the land ice and drifted away from the island. Dark-green water and white foaming surge yawned behind them. There was no time to think. They were drifting out to sea as fast as they could. But to go back empty-handed would have been too vexatious; so they cut off a quarter of a hide and dragged it with some lumps of blubber to the kayaks. They reached the land in safety, dead tired after an adventurous row, and sought the shelter of the hut.

In the night came a bear mamma with two large cubs, and made a thorough inspection of the outside of the hut. The mother was shot and the cubs made off to the shore, plunged in, and swam out to a slab of ice which would just bear them, and scrambled up. There they stood moaning and whining, and wondering why their mother stayed so long on shore. One tumbled over the edge, but climbed up again on to the slippery floe and the clean salt water ran off his fur. They drifted away with the wind and soon looked like two white spots on the almost black water. Nansen and Johansen wanted their meat, the more because the bears had torn and mangled all the walrus meat lying outside the hut. The kayaks were pushed out and were soon on the farther side of the floe with the bear cubs. They were chased into the water and followed all the way to the beach, where

they were shot.

Things now began to look better—three bears all at once! Then the first walrus came to the surface again, and while he was being skinned another came to look on and had to join him. It was disgusting work to flay the huge brutes. Both the men had their worn clothes smeared with train-oil and blood, so that they were soaked right through. Ivory and glaucous gulls, noisy and greedy, collected from far and near and picked up all the offal. They would soon fly south, the sea would be covered with ice, and the Polar night would be so dismal and silent.

It took a week to get the new hut ready. The shoulder blade of a walrus fastened to a ski served as spade. A walrus tusk tied to a broken ski staff made an excellent hoe. Then they raised the walls of the hut, and inside they dug into the ground and made a sort of couch for both of them, which they covered with bearskin. After two more walruses had been shot they had plenty of roofing material, which they laid over the trunk of driftwood. A bear came, indeed, and pulled down everything, but it cost him dear, and afterwards the roof was strengthened with a weight of stones. To make a draught through the open fireplace they set up on the roof a chimney of ice. Then they moved into the new hut, which was to be their abode through the long winter.

On October 15 they saw the sun for the last time. The bears vanished, and did not return till the next spring. But foxes were left, and they were extremely inquisitive and thievish. They stole their sail thread and steel wire, their harpoon and line, and it was quite impossible to find the stolen goods again. What they wanted with a thermometer which lay outside it

is hard to conceive, for it must have been all the same to the foxes how many degrees of temperature there were in their earths. All winter they were up on the roof pattering, growling, howling, and quarrelling. There was a pleasant rattling up above, and the two men really would not have been without their fox company.

One can hardly say that the days passed slowly, for the whole winter was, of course, one long night. It was so silent and empty, and an oppressive, solemn stillness reigned during the calm night. Sometimes the aurora blazed in a mysterious crown in the sky, at other times so dark, and the stars glittered with inconceivable brilliance. The weather, however, was seldom calm. Usually the wind howled round the bare rocks lashed by millions of storms since the earliest times, and snow swished outside and built up walls close around the hut.

The endlessly long night passed slowly on. The men ate and slept, and walked up and down in the darkness to stretch their limbs. Then came Christmas with its old memories. They clean up, sweep and brush, and take up a foot's depth of frozen refuse from the floor of the hut. They rummage for some of the last good things from the *Fram*, and then Nansen lies listening and fancies he hears the church bells at home.

In the midst of the winter night comes New Year's Day, when it is so cold that they can only lie down and sleep, and look out of their sleeping-bag only to eat. Sometimes they do not put out their noses for twenty hours on end, but lie dosing just like bears in their lairs.

On the last day of February the sun at last appears

again. He is heartily welcome, and he is accompanied by some morning birds, Little Auks. The two men are frightened of each other when daylight shines on them, as their hair and beards have grown so long. They have not washed for a year or more, and are as black in the face as negroes. Nansen, who is usually extremely fair, has now jet-black hair. They may be excused for not bathing at a temperature of-40°.

The first bear has come. Here he is scratching at the hut and wanting to get in; there is such a good smell from inside. A bullet meets him on the way. And as he runs off up a steep slope he gets another, and comes rolling down in wild bounces like a football. They lived on him for six weeks.

While the days grew lighter they worked at a new outfit. They made trousers out of their blankets. Shoes were patched, rope was cut out of walrus hide, new runners were put on the sledges, the provisions were packed, and on May 19 they left their cabin and marched farther south-west.

Time after time they had to rest on account of snowstorms. They had thrown away the tent, and instead they crept in between the sledges covered with the sail. Once Nansen came down when on skis, and would have been drowned if Johansen had not helped him up in time. The snow lying on this ice was soaked with water. They had always to keep their eyes open and look for firm ice. The provisions came to an end, but the sea swarmed with walruses. Sometimes the animals were so bold that Nansen could go up to them and take photographs. When a fine brute had been shot the others still lay quiet, and only by hitting them with their alpenstocks

could the travellers get rid of them. Then the animals would waddle off in single file and plunge head first into the water, which seemed to boil up around them.

Once they had such level ice and a good wind behind them that they hoisted sail on the sledges, stood on skis in front of them to steer, and flew along so that the snow was thrown up around them.

Another time they sailed with the kayaks lashed together and went ashore on an island to get a better view. The kayak raft was moored with a walrus rope. As they were strolling round Johansen called out, "Hullo, the kayaks are adrift."

They ran down. The wind was blowing off the land. Out on the fiord all they possessed in the world was being mercilessly carried away.

"Take my watch," cried Nansen, and throwing off a few clothes he jumped into the ice-cold water, and swam after the kayaks. But they drifted more rapidly than Nansen swam, and the case seemed hopeless. He felt his limbs growing numb, but he thought he might as well drown as swim back without the boats. He struck out for his life, became tired, lay on his back, went on again, saw that the distance was lessening, and put out all his strength for a last spurt. He was quite spent and on the point of sinking when he caught hold of one of the canoes and could hang on and get his breath. Then he heaved himself up into the kayak, and rowed back shivering, with chattering teeth, benumbed, and frozen blue. When he reached the land Johansen put him in the sleeping-bag and laid over him everything he could find. And when he had slept a few hours he was as lively as a cricket and did justice to the supper.

Farther and farther south they continued their daring journey over ice and waves. A walrus came up beside Nansen's canoe, and tried its solidity with his tusks, nearly taking kayak and oarsman down with him to the salt depths. When the animal went off, Nansen felt uncomfortably cold and wet about the legs. He rowed to the nearest ice, where the kayak sank in shallow water and all he possessed was wet and spoiled. Then they had to give themselves a good rest and repair all damages, while walruses grunted and snorted close beside them.

This journey of Nansen's is a unique feat in the history of Polar travels. Of the crews of the *Erebus* and *Terror*, a hundred and thirty-four men, not one had escaped, though they had not lost their vessels and though they lay quite close to a coast where there were human beings and game. But these two Norwegians had now held out in the Polar sea for fifteen months, and had preserved their lives and limbs and were in excellent condition.

Their hour of delivery was at hand. On June 17 Nansen ascended an ice hummock and listened to the commotion made by a whole multitude of birds. What now? He listens holding his breath. No, it is impossible! Yes, indeed, that is a dog's bark. It must surely be a bird with a peculiar cry. No, it *is* a dog barking.

He hurried back to the camp. Johansen thought it was a mistake. They bolted their breakfast. Then Nansen fastened skis on his feet, took his gun, field-glass, and alpenstock, and flew swiftly as the wind over the white snow.

See, there are the footprints of a dog! Perhaps a fox? No, they would be much smaller. He flies over the

ice towards the land. Now he hears a man's voice. He yells with all the power of his lungs and takes no heed of holes and lumps as he speeds along towards life, safety, and home.

Then a dog runs up barking. Behind him comes a man. Nansen hurries to meet him, and both wave their caps. Whoever this traveller with the dog may be, he has good reason for astonishment at seeing a jet-black giant come jolting on skis straight from the North Pole.

They meet. They put out their hands.

"How do you do?" asks the Englishman.

"Very well, thank you," says Nansen.

"I am very glad to see you here."

"So am I," cries Nansen.

The Englishman with the dog is named Jackson, and has been for two years in Franz Joseph Land making sledge journeys and explorations. He concludes that the black man on skis is some one from the *Fram*, but when he hears that it is Nansen himself he is still more astonished and agreeably surprised.

They went to Jackson's house, whither Johansen also was fetched. Both our explorers washed with soap and brush several times to get off the worst of the dirt, all that was not firmly set and imbedded in their skins. They scrubbed and scraped and changed their clothes from top to toe, and at last looked like human beings.

Later in the summer a vessel came with supplies for Jackson. With this vessel Nansen and Johansen sailed home. At Vardö they received telegrams from

their families, and their delight was unbounded. Only one thing troubled them. Where was the *Fram*? Some little time later Nansen was awakened at Hammerfest one morning by a telegraph messenger. The telegram he brought read: "*Fram* arrived in good condition. All well on board. Shall start at once for Tromsö. Welcome home." The sender of the telegram was the captain of the *Fram*, the brave and faithful Sverdrup.

FOOTNOTES:

[21] A *krona* is a Swedish coin worth about 1s. 1-1/2d.

VII

THE SOUTH POLAR REGIONS

It is barely a hundred years since European mariners began to approach the coasts of the mysterious mainland which extends around the southern pole of the earth. Ross, who in 1831 discovered the north magnetic pole, sailed ten years later in two ships, the *Erebus* and the *Terror* (afterwards to become so famous with Franklin), along the coast of the most southern of all seas, a sea which still bears his name. He discovered an active volcano, not much less than 13,000 feet high, and named it Erebus, while to another extinct volcano he gave the name of Terror.

And he saw the lofty ice barrier, which in some places is as much as 300 feet high.

At a much later time there was great rivalry among European nations to contribute to the knowledge of the world's sixth continent. In the year 1901 an English expedition under Captain Scott was despatched to the sea and coasts first visited by Ross. Captain Scott made great and important discoveries on the coast of the sixth continent, and advanced nearer to the South Pole than any of his predecessors. One of the members of the expedition followed his example some years later. His name is Shackleton, and his journey is famous far and wide.

Shackleton resolved to advance from his winter quarters as far as possible towards the South Pole, and with only three other men he set out at the end of October, 1908. His sledges were drawn by strong, plump ponies obtained from Manchuria. They were fed with maize, compressed fodder, and concentrated food, but when during the journey they had to be put on short commons they ate up straps, rope ends, and one another's tails. The four men had provisions for fully three months.

While the smoke rose from the crater of Erebus, Shackleton marched southwards over snow-covered ice. Sometimes the snow was soft and troublesome, sometimes covered with a hard crust hiding dangerous crevasses in the mass of ice. At the camps the adventurers set up their two tents and crept into their sleeping-bags, while the ponies, covered with horse-cloths, stood and slept outside. Sometimes they had to remain stationary for a day or two when snowstorms stopped their progress.



THE SOUTH POLAR REGIONS.

When the sun was hidden by clouds the illumination was perplexing. No shadows revealed the unevenness of the snowfield, all was of the purest white, and where the men thought they were walking over level ground, they might quite unexpectedly come down on their noses down a small slope. Once they heard a thundering noise far away to the east. It sounded like a cannon shot, but probably was only the immense inland ice "calving." When the ice during its constant but slow motion towards the coast slides out into the sea, it is lifted up by the water and is broken up into huge, heavy blocks and icebergs which float about independently. When these pieces break away the

inland ice is said to "calve."

Shackleton advanced towards the pole at the rate of twelve to eighteen miles a day. His small party was lost like small specks in the endless desert of ice and snow. Only to the west was visible a succession of mountain summits like towers and pinnacles. The men seemed to be marching towards a white wall which they could never reach.

On November 31 one of the ponies was shot, and its flesh was kept to be used as food. The sledge he had drawn was set up on end and propped up as a mark for the return journey. Five days later Shackleton came to Scott's farthest south, and the lofty mountains with dark, steep, rocky flanks which he afterwards had by the side of his route had never before been seen by man.

A couple of days later a second pony was shot, and shortly afterwards a third, which could go no farther, had to be put out of his misery. The last pony seemed to miss his comrades, but he still struggled on with his sledge, while the four men dragged another.

The mountain range which they had hitherto had on their right curved too much to the east, but fortunately it was cut through by a huge glacier, the great highway to the Pole. They ascended the glacier and crossed a small pass between great pillars of granite. Now they were surrounded by lofty mountains. The ice was intersected by dangerous crevasses, and only with the greatest caution and loss of time could they go round them. A bird flew over their heads, probably a gull. What could he be looking for here in the midst of the eternal ice?

One day three of the explorers were drawing their sledge while the fourth was guiding the one drawn by the pony. Suddenly they saw the animal disappear, actually swallowed up by the ice. A snow bridge had given way under the weight of the pony, and the animal had fallen into a crevasse 1000 feet deep. When they bent over the edge of the dark chasm they could not hear a sound below. Fortunately the front cross-piece of the sledge had come away, so that the sledge and man were left on the brink of the chasm. If the precious provisions had gone down with the horse into the bowels of the ice, Shackleton would have been obliged to turn back.

Now left without assistance in dragging the sledges, they had to struggle up the glacier between rocks and slates in which coal was imbedded. On Christmas Day the temperature was down to-47°—a fine midsummer!

At length the four men had left all mountains behind, and now a plateau country of nothing but snow-covered ice stretched before them. But still the surface of the ice rose towards the heart of the South Polar continent, and the singing headaches from which they suffered were a consequence of the elevation. A flag on a bamboo pole was set up as a landmark.

On January 7 and 8, 1909, they had to lie still in a hard snowstorm, and the temperature fell to-69°. When such is the summer of the South Pole, what must the winter be like? January 9 was the last day on their march southwards. Without loads or sledges they hurried on and halted at 88° 23' south latitude.

They were only 100 miles from the South Pole when they had to turn back from want of provisions. They

might have gone on and might have reached the Pole, but they would never have come back.

The height was more than 10,000 feet above sea-level, and before them, in the direction of the Pole, extended a boundless flat plateau of inland ice. The Union Jack was hoisted and a record of their journey deposited in a cylinder. Shackleton cast a last glance over the ice towards the Pole, and, sore at heart, gave the order to retreat.

Happily he was able to follow his trail back and succeeded in reaching his winter quarters, whence his vessel carried him home again in safety.

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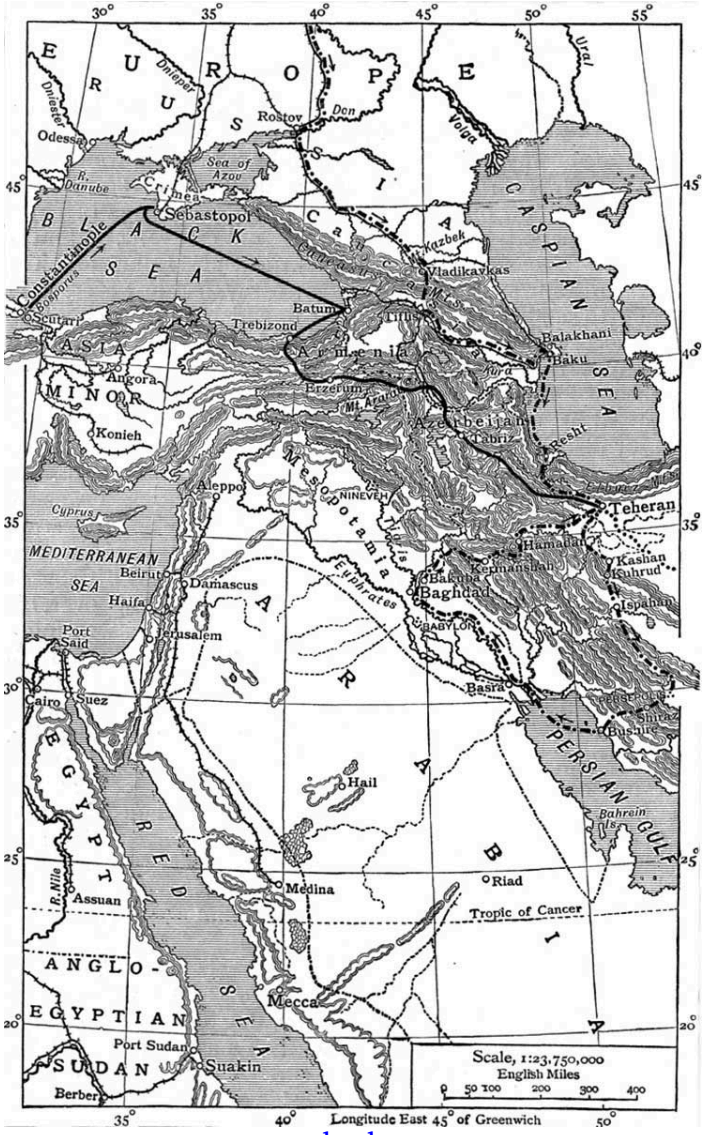
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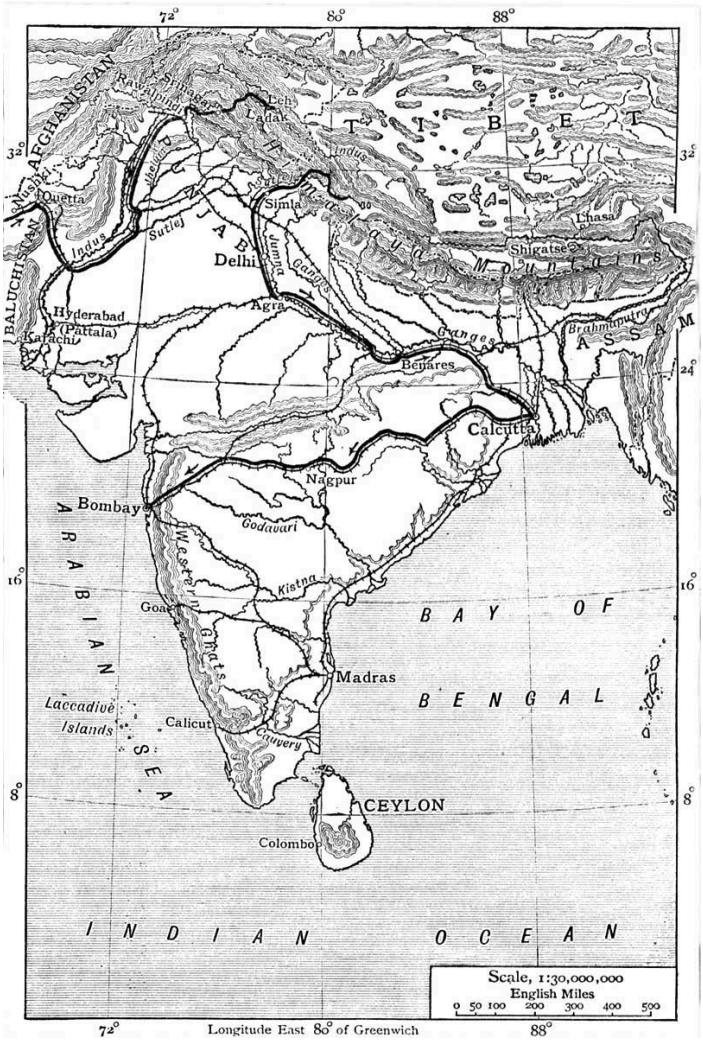
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ARABIA
Medina
Riad
Tropic of Cancer
R. Nile
Assuan
ANGLO-EGYPTIAN SEA
Mecca
Port Sudan
SUDAN
Suakin
Berber
Scale, 1:23,750,000
English Miles
0 50 100 200 300 400
30° 35° 40° 45° 50° 55°
45° 40° 35° 30° 25° 20°
35° 40° Longitude East 45° of Greenwich 50°

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72°
80°
88°
32°
24°
16°
8°
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