

LANTERN LECTURES  
ON THE  
UNITED KINGDOM.

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1909

*INDIAN EDITION*  
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# SEVEN LECTURES

ON THE

## UNITED KINGDOM

FOR USE IN

I N D I A.

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*Reissued for use in the United Kingdom.*

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BY

H. J. MACKINDER,

*Lately Director of the London School of Economics and Political  
Science : Author of "Britain and the British Seas."*

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**With Lantern Illustrations.**

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*ONE SHILLING NET.*

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## P R E F A C E.

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THE component parts of the British Empire are so remote and so different from one another, that it is evident that the Empire can only be held together by sympathy and understanding, based on widely diffused knowledge of its geography, history, resources, climates, and races. It is obvious that if this knowledge is to be effective it must be imparted to the coming generation. In other words it must be taught in the Schools of the Empire.

In the Autumn of 1902, a Committee was appointed by the Secretary of State for the Colonies to consider on what system such teaching might best be developed. The Committee came to the conclusion that children in any part of the Empire would never understand what the other parts were like unless by some adequate means of visual instruction; and, further, that as far as possible the teaching should be on the same lines in all parts of the Empire. It was decided to make a beginning by an experiment on a small scale, and for this purpose to invite the three Eastern Colonies of Ceylon, the Straits Settlements, and Hong Kong to bear the expense of a small book of Lantern Lectures on the United Kingdom for use in the Schools in those Colonies. Other parts of the Empire were afterwards invited to have editions which would be suited to their own special requirements prepared at their own expense, and up to the present date editions have been issued for the Eastern Colonies,

for the West Indies, for West Africa, for Mauritius, and for India. Editions are now in preparation for Canada and for South Africa.

The lectures contained in this little volume are identical with those prepared under the foregoing scheme for use in India. It has been represented to the Committee that it would be stimulating to children in the United Kingdom to have presented to them an account of their own land as seen from the point of view of children in another part of the Empire. The effort on the part of English children to imagine themselves in the position of Indian children should tend to arouse and impress a valuable feeling of political sympathy.

The Committee, however, have always had in mind the preparation of illustrative lectures on the Colonies and India as well as on the United Kingdom. The experience which they have now gained has convinced them that if this part of the work is to be done as well as it can be done, it is advisable to have the illustrations prepared on a uniform system by a highly skilled artist or artists specially commissioned for the purpose. They were so fortunate as to interest Her Royal Highness the Princess of Wales in their work, and through her powerful and gracious support, and that of Lady Dudley and a Committee of ladies who were good enough to collect a sum of £4,000 for the purpose, they have been able to make a beginning of a work which will take some years to complete. The Committee desire me to record their

warm gratitude to Her Royal Highness, to Lady Dudley, and to the Committee of ladies for making this part of the undertaking possible.

During the past year an artist, Mr. A. Hugh Fisher, has been travelling through India collecting material for the Committee, and it is hoped that before another twelve months have elapsed a course of lectures on that country, well illustrated by means of the lantern, may be published. Ceylon, Somaliland, and Cyprus have also been visited, and Mr. Fisher is now in Canada, and will presently go to the Far Eastern Colonies. Other parts of the Empire will be dealt with successively, and in the course of three or four years, the Committee intend to have available for purchase by public educational authorities and others a complete survey of the Empire, uniform in method. Their hope is that with the aid of the various Governments and the kindness of many official and private friends, they may put together a series of illustrations rich in colour, suggestive of life and incident, and artistic in composition. I shall be responsible for the letterpress, and in that work hope to have the assistance of the Directors of Education in the several Dominions and Colonies. The Committee trust that in this way they may succeed in presenting in their relative importance and proportion all the chief facts essential to the popular understanding of the Empire.

H. J. MACKINDER.

LONDON,

*December, 1908.*

## PREFACE TO THE INDIAN EDITION.

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THE object of these Lectures, and of the lantern slides which accompany them, is to give to the school children of India, through their eyes as well as their ears, a true and simple impression of what the United Kingdom and its people are like. If this intention has in any degree been realised, it is probable that with some modification of the form of the lectures the interest of adults may also be aroused. The changes necessary to suit particular circumstances may be introduced in the process of translation into the vernacular. In regard to children, each lecture may well supply several hours' lessons, being meant as the text for teaching, and a guide as to the method of teaching, and not simply to be repeated word for word in a single hour.

My thanks are due to many who have given me help, especially to the Colonial Office Committee, who debated at length the preliminary scheme, and to the Principal, Staff, and Students of the Stockwell Training College, before whom the lectures were experimentally delivered. I am also under obligation to those who have supplied me with material for some of the slides, particularly to Sir William Abney (V. 49, 50), Sir Benjamin Baker (I. 40, 41), Mr. G. J. S. Broomhall (VI. 39, 40), the Geological Photographs Committee of the British

Association (VI. 8), the Great Western Railway Company (VI. 42), Messrs. Huntley & Palmers (VI. 41), Sir Walter Egerton (VII. 28), General Kemball (VII. 29, 30), the London & North Western Railway Company (VI. 43), the London & South Western Railway Company (III. 19, 20, 21), Sir William Matthews, K.C.M.G., of Messrs. Coode, Son & Matthews (I. 23, 24, 25, 26), Sir Andrew Noble, of Sir William Armstrong, Whitworth & Company (VI. 26, 30), the Peninsular and Oriental Steamship Company (I. 56, 57, 58, 59), Messrs. R. & J. H. Rea (VII. 7), Mr. William Taylor (I. 9, 11, 47), Mr. Graham Wallas (VI. 36), Dr. Lynden Macassey and the late Mr. Yerkes (VI. 46, 47).

The scheme which is here realised was carried through in the first instance owing to the enterprise of the three Colonies, Hong Kong, the Straits Settlements, and Ceylon. This is one of several Editions adapted to the special points of view of other parts of the Empire.

I desire to thank for their kind suggestions Sir William Lee-Warner, K.C.S.I., Sir Philip Hutchins, K.C.S.I., Sir Thomas Holdich, K.C.M.G., Sir W. Curzon-Wyllie, K.C.I.E., and Mr. Theodore Morison.

H. J. MACKINDER.

LONDON,

*March, 1907.*

The following editions of these Lectures have been issued—

**1. Eastern Colonies Edition, Sept., 1905.**

In use in Ceylon, the Straits Settlements, and Hong Kong.

**2. Mauritius Edition, June, 1906.**

In use in Mauritius.

**3. West African Edition, Sept., 1906.**

In use in Sierra Leone, the Gold Coast, and Southern Nigeria.

**4. West India Edition, Sept., 1906.**

In use in Trinidad, British Guiana, and Jamaica.

**5. Indian Edition, March, 1907.**

In use in the following Provinces :—Madras, Bombay, Bengal, the United Provinces, the Punjab, Burma, Eastern Bengal and Assam, the Central Provinces, and the North West Frontier Province.

**6. Indian Edition for use in the United Kingdom, Jan., 1909.**

Canadian and South African Editions are being prepared by direction of the Governments of the Dominion of Canada and of the South African Colonies.

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# SEVEN LECTURES on the UNITED KINGDOM.

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## LECTURE I.

---

### THE VOYAGE FROM INDIA TO LONDON.

THE BRITISH EMPIRE consists of a number of lands scattered over the whole world. Some of the most im-

**1.**

**Map of the  
Indian Ocean.**

portant of these lands are round the Indian Ocean. In this map we see to the east Australia, to the west South Africa, and to the north India, which are three out of the six or seven great lands belonging to the Empire. Then there are smaller lands; some of them so small that on the general map of the Indian Ocean they hardly appear. We can only show their names and a dot for their positions. Such, notwithstanding their importance in the world's trade, are Singapore, Mauritius, and Aden. There are other lands of intermediate size, and notable of these is the Island of Ceylon. Among the smallest of all the British Territories are the Seychelles, a coaling station for the Fleet, placed nearly midway between Mauritius, Zanzibar, and Colombo. On the mainland of Africa in the neighbourhood of Zanzibar is also the considerable territory of British East Africa, through which runs the Uganda Railway from Mombasa to the great lake of Victoria Nyanza and the sources of the River Nile.

Of all these countries the most important is our own land of India. As you know, it has three hundred million people. Here we have a map of India and

**2.**

**Map of India.**

of the allied states, Afghanistan and Nepal. You see upon it in the darker tint of red the territories which are immediately under

the British Government, and you see also in the lighter tint the Native States, ruled by their own chiefs, although protected by the British Raj. In no other part of the world do we find peace secure from end to end of a vast territory, and yet within it great states ruled by their own chiefs, as in Kashmir, Rajputana, Central India, Haidarabad, and Mysore. Some of the principal countries of Europe are little larger than some of the Native States of India, yet the continent of Europe is full of armaments, and there is always danger of war there. India owes to the British Raj peace for a fifth of the human race, and yet the different laws, languages, and religions have been preserved, so that the people of each part and of each race are able to live according to their own historic customs.

**3.** India lies between the mountains and the ocean. Along one-half of her land frontier the highest range of mountains in the world makes a great rampart, defending her from invasion. The railways which now extend through the whole land not only help to prevent death from starvation when the harvests fail, but also enable the Indian Government to concentrate the army quickly for the defence of the only portions of the frontier of India by which invasion is possible. In 1738, Nadir, Shah of Persia, invaded India, took Delhi and slew one hundred thousand of the people. In 1761, Ahmed, Shah of Afghanistan, invaded India and defeated the Mahrathas in the great battle of Panipat, almost at the gates of Delhi. After that time the British Raj grew up, and no foreign enemy has since been able to disturb the peace of India. Who can measure the value of peace for the millions of our people? There are nearly 730,000 villages in India : without peace they could not reap their harvests. There are over 2,000 towns in India : without peace their trade would be ruined.

But we must not forget that more than one-half of the boundary of India is washed by the waves of the great sea.

**4.**

**The Ocean :  
The Surf at  
Madras.**

Why is it that we need not maintain great armies along the coast of India? The water of the ocean spreads round all the lands of the world, and enemies from many lands might come in ships to attack us. The reason why we need give little thought to the defence of our shores is that the British Fleet is strong, and is ready in distant parts of the ocean to fight with any hostile fleet that might set out to invade India. No rule in India has ever before had the advantage of peace on the ocean. The Emperors at Delhi in former centuries were obliged to pay for an Abyssinian Fleet to give some protection to their shores.

In three ways therefore India draws great profit from her share in the British Empire. In the first place she is saved the cost of defending her sea border from foreign invasion. In the second place the sea road lies peacefully open for a vast commerce with the rest of the world. And in the third place, by means of the railways from her ports to her land frontiers she is able to defend those frontiers not only by the Indian Army, but, if necessary, by all the strength of the other parts of the Empire brought over the seas and carried quickly to the threatened point. Never before has the peace of India been so secure at so small a cost. This is the strength which comes from standing not alone, but as one of the league of nations which is known as the British Empire. It is a splendid thought to think of the many separate races, each living their own lives according to their own traditions, which are now held peacefully together within the British Empire. In Britain itself you must remember that there are the English, the Scotch, the Irish, and the Welsh, just as in India there are the Rajputs, the Sikhs, the Mahrathas, the Bengalis, and many other races. Once the English and the Scotch used to fight one another; but now there is peace in Britain as there is in India. Yet throughout the British Empire all men are free to think and say what they like.

The Empire is held together to-day chiefly by means of railways on the land and steamships on the sea. The

5. **Map of the Railways of India.** The railways of India end at the foot of the mountains. In the plains they cross the broad rivers by long bridges. In the Deccan they descend to the sea by ways that are cut into the mountain face. Here we have a bridge

6. **Sutlej Bridge.** over the Sutlej, on the Delhi railway, and here the curious Reversing Station on the

7. **Bhor Ghat Reversing Station.** Bhor Ghat above Bombay, where the steepness of the ground does not allow space for the railway to bend on its way down the mountain side.

The modern capitals of India are naturally on the coast, for it is there that the life of India comes into contact with the life of the world over the sea. In these capitals, protected by the Fleet, the commerce borne by the railways connects with the ocean-borne commerce.

Let us spend a moment considering why it is that trade over the ocean is of such vast importance to India, and why, therefore, the sea-ports are the greatest of her cities. In

8. **Map showing the Unity of the Ocean.** this map you see at a glance that all the lands of the world are in truth islands, for even the largest continent is surrounded by the ocean. Therefore a ship can go from any coast you will to any other coast.

But by road or by railway it is possible to travel only from one part to another of the same island or continent. Hence it is that ocean-borne commerce is the most general, for land-borne commerce is limited by the coast and can go no further. It would be impossible for us to trade over the land with England. At some point or other we must cross the sea, and traffic over the sea is much cheaper than on the land. Therefore, in some cases it even pays to carry goods from point to point along the coast of India, instead of carrying them by land. This map also tells you why the one British fleet can defend all the coasts of the British Empire. It is because the ocean is one, and the fleet can sail from any part of it to any other part.

The voyage to Britain used to be a long one, and not without danger. True that the same ship could go all the way from Calcutta to London, carrying passengers, mails, and cargo; but in former times the passage took many months, for ships, as you know, could then only be moved by the wind, and at some seasons the wind blew in a direction contrary to the course of the ship. Moreover, even the East India ships were small, and we must

**9.** remember the rough seas which they had to traverse when rounding the Cape of Good Hope. Here, for example, are the kind of ships in which Europeans first

**Ships of the time of Vasco da Gama.**

**10.** came round the Cape to the Indies in the time of Vasco da Gama. And here is a sailing ship of later times, much improved both in hull and sails, but still liable to be delayed by contrary winds and by calms.

**Sailing Ship.**

In the present day, however, the British Empire is knit together by means of large vessels, moved by steam, in which men come and go with certainty over thousands of miles of trackless ocean.

**11.** This is one of the steamers of the great Peninsular and Oriental Company, which, together with other companies, trades through the Suez Canal between Britain and India. You will see, then, that by using steam instead of the wind, by substituting large ships for small, and by cutting the Suez Canal, so that the voyage may be through shorter and generally calmer seas, men have brought London, the capital of the Empire, within less than a month of India, whereas it used to be five months away.

**P. & O. s.s. "Caledonia."**

We have seen that the modern capitals of India are the sea-ports. In no age before this dared men place

**12.** their great cities on the open coast, for they were exposed to attack there by pirates as well as foreign enemies. The present capitals of India are there-

**Dalhousie Square, Calcutta.**

**13.** fore new towns. Calcutta is on a strip of low ground beside the bank of

**The Hugli.**

**14.**  
**Madras from  
the Sea.**

the River Hugli. Only 200 years ago it was a small village. Yet here to-day is a stately city, and in the river are ships from all parts of the world. Madras was

**15.**  
**Arrival of the  
Viceroy at Madras.**

a stretch of open surf-beaten coast 270 years ago, but to-day it has half-a-million people, and a harbour of stone piers built

**16.**  
**Bombay Rampart.**

far out into the sea to break the force of the waves, so that great ships may land their passengers and cargoes in calm water. Bombay, also, some 240 years ago was an unimportant islet with only some 10,000 inhabitants, and to-day, as you know, it is a city which rivals Calcutta in its wealth and grandeur. Karachi has grown similarly from a much later beginning on an utterly sterile desert coast.

In these Lectures we are going to make a visit to the British Isles, the land in all the world which, after our own land of India, should be of the greatest interest to us, for it is the centre of the Empire to which we owe so much. We may start on our voyage from any one of the five

**17.**  
**Queen's Memorial,  
Bombay.**

great ports of India : Bombay, Calcutta, Madras, Karachi, or Rangoon, and we shall naturally leave by that port which is most conveniently placed with reference to the particular part of India

**18.**  
**Bombay Harbour.**

in which we live. If we sail from Bombay we will visit before we start the monument of the great Queen Victoria, who for more than 60 years ruled both India and England.

A mail steamer upon the ocean is now like a great moving hotel, which goes from port to port with wonderful

**19.**  
**Out at Sea,  
Deck scene.**

punctuality. Here you have a scene on deck when out at sea. And here is the saloon with the tables set for the dinner of several hundred people. Nor must we

**20.**

Saloon of  
P. and O.  
Steamer.

forget to look at the engines, which turn the heat of burning coal into power equal to that of ten thousand horses. And, lastly, we will glance into a private cabin and see the comfortable berth. All this is very different from the rough voyage of only fifty years ago.

**21.**

Engines of  
P. and O.  
Steamer.

Of steamers altogether—some of them fast mail boats, some slow cargo boats—the British Empire possesses for ocean-going purposes 9,000. These are parts of the Empire just as much as the land. There-

**22.**

P. and O.  
Steamer—a  
State Room.

fore you must think of the British Empire as consisting of many countries, which, together, make one-fifth of all the land in the world ; and you must think of it as consisting also of these 9,000 steamers upon the ocean, which, as you know, measures three-fourths of the surface of the globe. The whole Empire—lands, ships, and people—is protected by the British Navy upon the ocean, and by the Army distributed through the British lands.

But it is not enough to have swift, comfortable ships. Deep, calm harbours are needed, where the great ships may lie close to the land and discharge their burden. Here for instance we have a monument of which British engineers may be proud. This is a view of Colombo

**23.**

Colombo Harbour  
and Breakwater.

Harbour in the Island of Ceylon where the ships gather from Calcutta, and Madras, and Rangoon before they leave the Indian seas. The slide shows the main breakwater, built upon the bed of the sea, which protects shipping from the rough waves of the south-west monsoon.

**24.**

Colombo Harbour,  
North-west Break-  
water in progress.

And here we have another view, showing a new part of the breakwater in process of building. Observe the huge block which is being lowered by the crane into the sea. Do you note that the crane

25. **Colombo Harbour,  
Diver at work.** itself is movable upon wheels, which run upon two pairs of rails? Next we have the diver descending to his work, with his head in a helmet, into which air is pumped from above. He has to prepare the bed on which the great blocks of concrete are laid.
26. **Colombo Harbour,  
Blockyard.** Lastly, we have the blocks shown in the blockyard stored ready for use.

Before we start on our voyage, we will cable to our friends in London, telling them to expect us. The electric cables are a very important part of the British Empire, although they lie two and three miles deep on the ocean bottom. Indian students and others who happen to have no friends in London are welcomed and introduced by the Northbrook Society or by the National Indian Association. The address of the first is 185, Piccadilly, London, and of the second Caxton Hall, Westminster.

Now let us go on our journey. We are traversing the ocean in a mail steamer; we leave Colombo or Bombay or Karachi and steam westward into the Gulf of Aden. Here we have one of the most remarkable contrasts of climate to be found in the world. In Ceylon or at Bombay rain and heat combine to produce a luxuriant tropical vegetation capable of supporting much human and animal life. There are other countries—and we are going to traverse some of them—which although hot enough, have little rain. Let us realise this contrast; for in taking a voyage from Colombo or Bombay to Aden we go from a well watered country to one which lacks water. Here is a scene in Ceylon, showing the rank vegetation which results from tropical heat and monsoon rains. Here, on the other hand, is the British fortress of Aden. It rains on an average in Aden only once in several years, but when it does rain it rains very hard, and these great tanks

27. **Forest Scene  
in Ceylon.**

28. **Aden from the  
Sea.**



**29.** were constructed to gather the water from the naked rocky slopes around, and to store it for use in the next few years. You see that two or three shrubs are grown as curiosities beside the tank. But as Aden grew into a populous settlement the tanks were not sufficient for the wants of the people. The British distil fresh water from the sea.

**30.** Aden is a British fortress. It is not an island, but it is the next thing to an island—it is a peninsula. It is therefore easily defended by warships on the sea. The narrow isthmus connecting it to the mainland has been fortified.

**31.** So we pursue our journey until we come to Suez. This map shows you the routes from India across the Western Indian Ocean and up the Gulf of Aden and the Red Sea to Suez, at the entrance to the Suez Canal.

**32.** On the right hand we see Mecca marked in the map. Peace on the ocean, the traffic of steamships, and the British station at Aden have rendered the Haj less expensive than it used to be and less dangerous, so that many more Mohammedans now go to Mecca from India. Next we see our steamer in the Suez Canal. The banks are brown and desert, for a shower of rain is very rare, and the whole isthmus is naked rock and sand. The sea way is now continuous from the Red Sea. But the making of the Canal would have been impossible unless there had been fresh water near at hand in Egypt for the nourishment of the workers. The army of workmen who dug the Canal were supplied with sweet water by means of a small canal from the Nile. So you see that the Suez Canal was possible only because of the great river of Egypt, which brings water through the desert from far off sources.

In this map of Lower Egypt you will see named the

**33.**

**Map of Lower  
Egypt.**

Gulf of Suez, which is the end of the Red Sea. Up the Red Sea come ships from Aden and the Indian Ocean. Here, on the other hand, is the Mediterranean, through which we shall pass to the Atlantic Ocean. And here is Suez, and the Isthmus of Suez, with the line of the Suez Canal. All that is shown yellow is barren, waterless desert, but the parts tinted with green are fertile and cultivated. As you see from the map, the isthmus is about 100 miles across. Remember that the voyage from Bombay to Britain is some 7,000 miles long—3,500 miles as far as the Canal and 3,500 miles beyond the Canal. Between the Eastern Ocean and the Western Ocean is only the Isthmus of Suez, but this used to compel men to take their ships far south through rough seas, round the Cape of Good Hope.

Let us, therefore, cross into Egypt, and ask what it is that has made possible this great change in the route of commerce and empire. Before the Canal was cut, but when already steam had been applied to the moving of ships, there were a few years in which passengers and letters were taken by one ship from Bombay to the Isthmus of Suez, and then on by another ship from the other side of the Isthmus to Britain. They were carried across the desert on the backs of camels. Here

**34.**

**The Overland Route  
through the Desert.**

See the bones of a camel which has fallen by the way ; the flesh has been picked off by vultures, and the sun and air have dried what remained to cinders. The camel is often called "The Ship of the Desert," and this camel must have broken down just as ships are sometimes wrecked.

**35.**

**Cairo—  
The Citadel.**

At the end of their desert journey the travellers overland, before the Canal was made, came to the city of Cairo. We see it here with its citadel in the foreground.

Notice within the citadel the great Mohammedan mosque with its towering minarets. Cairo is now occupied by the British, and there is freedom of religion for all races, as in every part of the British Empire. Close to Cairo are famous monuments, the Pyramids and the Sphinx, built some six

**36.**

**The Road to the  
Pyramids.**

thousand years ago. We see the Pyramids first in the distance as we drive from Cairo along this road. The trees which

**37.**

**The Pyramids and  
the Sphinx.**

you see are watered daily, for rain is very rare in Egypt. Here we have arrived at the Pyramids, which are just on the desert edge, because the land watered by the

Nile is too valuable for purposes of cultivation to permit of their being placed on fertile ground. The Pyramids and the Sphinx have hardly changed in this intensely dry climate through the space of 6,000 years, although the Sphinx has

**38.**

**Climbing the  
Pyramids.**

been partly buried in the sand. In order that you may appreciate the size of the Pyramids let us show a party of tourists climbing the great Pyramid, and note the huge blocks of stone of which it is built.

And now let us ask the question for which we are making this excursion from the Suez Canal into Egypt. How comes it that here, in the rainless desert, there is fresh water to make possible the cutting of the Suez Canal? It is because the Nile, the river of Egypt, comes from the South beyond the desert. There every summer the rains fall in Abyssinia,

**39.**

**The Nile Valley  
in Flood.**

and the Egyptian Nile, far away to the north, rises in flood. Here is a view, taken from the edge of the desert at the brink of the valley, in the time of the annual flood.

When the water subsides the crops are sown, and presently the harvest is reaped without so much as a shower of rain to aid the growth.

Now, sometimes it happens, as it happens also in India, that the rains fall short in Abyssinia. In such years the Nile brings down to Egypt a much smaller quantity of water.

The fertilising flood is small, and there is danger of famine. As a precaution against these droughts, and also to extend the cultivated area some way into the desert, the British have constructed, near the southern end of Egypt, a great dam right across the valley. Here the

**40.** dam is shown just when it was finished,  
**The Assouan Dam.** and before the water had risen behind it.

Do you notice beside the dam the canal with locks, by which the river traffic goes up and down notwithstanding the barrier to the flow of water? Do you see also all the openings in the dam to let the water through when it has risen high enough behind the masonry? Let me show you this same dam on the day when it was opened by the Duke of Connaught, brother of the King of

**41.** England. This is he, wearing a white  
**Opening of the Assouan Dam.** helmet and with medals and orders on his breast. Beside him are standing the

Duchess of Connaught, the Khedive of Egypt, whom you may distinguish by the fez which he wears, and Lord Cromer, the great Englishman who has helped the Khedive to build the dam. You can distinguish Lord Cromer by his tall white hat. The water in the picture has risen to a high level behind the dam, the sluices have just been opened, and the stream is pouring on once more towards the sea. Every year the water now collects behind the dam during the period of flood, and is then let gradually down during the period of low Nile. Thus Egypt is becoming rich because its people are saved from famine, and new land, formerly desert, is brought under cultivation.

Let us return to our ship, which is waiting for us at Port Said, the port at the northern end of

**42.** the Suez Canal. Here is a great mail  
**Port Said—Coaling.** steamer taking in coal for the remainder of her voyage from India. Is it not wonderful to think of the thousands upon thousands of tons of coal that are dug out of the ground in the British Islands

and sent over the seas to drive most of the 9,000 steamers which do the trade of the British Empire?

And now we have come into the western seas and to the lands of the white man. On leaving Port Said, we

**43.**                     steer westward at first, through the Mediterranean Sea. We call at Malta and Gibraltar, which are British ports, like

**Map of the**  
**Mediterranean.**     **44.**                     Aden and Colombo. Malta is an island. Here is a view of its harbour, showing the

**Malta.**                     **45.**                     fortifications. But the fortress of Gibraltar is on a peninsula like Aden, and a low

**Gibraltar.**               isthmus, to the left of the picture, connects it with the mainland. The front of this tall cliff above the isthmus is pierced with galleries, which every here and there come out to the cliff front and allow place for a cannon. So you see that in Europe, as in Asia, the sea power of Britain has islands and little peninsulas for the calling places of its ships. Close to Gibraltar was fought Trafalgar, the most celebrated of British victories at sea.

**46.**                     We pass through the Strait of Gibraltar, which is only eight miles across, and has

**Map of Western**     Europe visible on the one hand and Africa on the other. Now we emerge from the Mediterranean and steering northward round the western lands of Europe, we at last approach the British Isles. We cross the

Bay of Biscay, a part of the broad

**47.**                     Atlantic. Huge billows often roll in from the ocean, and play with our great steamer as a child plays with a toy, yet there is a busy traffic of ships on these wide waters.

But there was a time when Britain had no Colonies, and consisted only of British Islands. There were then fewer people in Britain than there are now, and the English Channel, up which we are to sail, protected the British people from invasion by enemies, so they were able to develop the government and the freedom which have since helped Britain to

give peace and to give justice through so large a part of the world.

As we steer into the home waters of Britain, the first object we see is a famous lighthouse,

**48.**  
**Eddystone**  
**Lighthouse.**

built on the dangerous Eddystone rocks, ten miles away from the coast of England. You will notice that there is also the stump of an older lighthouse. The waves of the ocean are sometimes very terrible, and this is the fourth lighthouse which has had to be built on these rocks. Britain is surrounded by several score of lighthouses placed upon all the dangerous points round its shores.

Passing Eddystone, we may call at Plymouth to land some of our passengers, who will hurry to London by train. But we will proceed up the English Channel. Off Dover we

**49.**  
**Map of the Straits**  
**of Dover and the**  
**Thames Estuary.**

turn north and round the promontory of Kent, with cliffs of white chalk on our left hand. Entering the broad estuary of the Thames we are soon off Gravesend, having passed Chatham, one of the chief stations of the Navy. At Gravesend we shall probably have to anchor for a short time, because the river is tidal and is deep enough for large vessels only at high water.

Dover, seen from our deck quite clearly as we came past it, is a place of much interest to those who live in the East. You know that nowadays the letters from India and the neighbouring lands are not carried to Britain all the way round by sea past Gibraltar, but are landed at a Mediterranean port and brought across Europe by rail. They cannot enter England, however, without once more being placed upon a steamer—this time a small packet, which rapidly crosses the twenty miles of water between Britain and the Continent, known as the

**50.** Straits of Dover. You can see across  
**Channel Boat** the Straits of Dover. There are  
**approaching Dover.** white cliffs which glisten in the sunshine

**51.** on both sides. Here is one of the Channel steamers unloading at Dover pier. Do you see the railway train drawn up alongside? It is about to leave for London.

**Dover—Admiralty Pier, S.S. “Pas de Calais” unloading.**

**52.** Notice the crane lifting baggage from the steamer to the train, so that there may be as little delay as possible. Here is another Channel steamer at Dover. She is just about to leave for the Continent.

**Dover—Admiralty Pier, S.S. “Queen” loading the Indian Mails.**

The railway train has arrived—a whole van, less the wheels, is being raised on the crane and placed on the steamer. It is full of baggage, and is lifted thus to save time—for every minute is worth money. Some hundred bags of mails have to be carried on to the vessel. Think of the many, many thousand letters written every week in Britain which are going to the East—to India and to Ceylon, to the Straits Settlements and Hong Kong and Mauritius.

Let us now go back to our steamer. The tide turns, and we leave Gravesend, passing slowly up the river towards London. The scene is often very animated at Gravesend,

**53.**  
**Gravesend—Shipping waiting for the Tide.**

**54.**  
**Sunset near Gravesend.**

**55.**  
**The same ten minutes later.**

as several score of vessels, great and small, get up their anchors and begin to move with the running stream. Sometimes as you look westward up the Thames in the evening, the light in the sky is magnificent, for the clouds are dense with smoke. You must remember that this city of 7,000,000 people has a cold winter, and each room has a place for a fire to keep its inhabitants warm. By good fortune we have been able to photograph such a sunset from the hill above Gravesend. Do you see the river shining on the dark ground below? Here is the same sunset taken ten minutes later. These two slides have not been painted with a brush according to an artist's imagination they have been photographed in colour, and they are absolutely true in their effect.

At last we enter one of the docks which receive ships from the river at high tide. The dock gates are closed behind us, so that when the tide falls in the river our

**56.** steamer will remain afloat beside the wharf. We see here the great vessel  
**Arrival in Dock.** being pushed slowly into her berth by steam tugs which were waiting for her.

**57.** And here we have a scene on deck when  
**Welcome on Deck.** the gangways have been opened to the shore, and friends have come on board to

**58.** welcome our British fellow-passengers,  
**Landing.** many of them returning home after years of absence. Now we set foot on land, and run by train past miles of houses until we come into the centre of the vast city, and reach our hotel. Meantime

the captain of the ship and the crew have  
**59.** gone to their homes, and the great  
**Steamers in Dock.** ship lies at rest in the dock—silent after her long voyage.

We will unpack our trunks and sleep for a night before we go into the streets of London to see the metropolis of the Empire.





## LECTURE II.

### LONDON, THE IMPERIAL CITY.

Before we set out through the largest and most populous city of the world, let us consider what it is that we are going to look at. Let us try to understand the size of the United Kingdom and of London by comparing them with India and its chief cities. First we have a

**1.**

**Areas of  
India and  
the British Isles  
compared.**

map showing the area of the British Isles compared with the area of India. We see that the British Isles are small as compared with India ; but they have a far more dense population. There are more than twice as many people to the square mile in the United Kingdom than there are in India. This is due to the fact that the people of India live for the most part in villages, whereas in the United Kingdom the majority of the people live in the cities. In India only about ten per cent. of the whole population live in towns with more than five thousand inhabitants.

**2.**

**Populations of  
London, Calcutta,  
Bombay, Madras,  
Delhi, Rangoon,  
and Karachi  
compared.**

Now let us compare the populations of our chief Indian cities with that of London. We have here circles which represent by their areas the population of London on the one hand, and on the other hand of Calcutta, Bombay, Madras, Delhi, Rangoon, and Karachi. We see at a glance that London has a population greater than the combined population of all these great cities.

We notice the words "Greater London" round the black circle. London may be measured in three ways, for it consists of three zones, one within the other. In the centre there is the oldest part, the City of London, which is now the chief place of business. Round the city there has grown up, in the course of centuries, a great ring of population known as Inner London. Outside this again, there has sprung up of recent years a still wider zone of suburbs, which

is called Outer London. These three, the City, Inner London and Outer London, together make Greater London.

**3.**  
**Areas of London and Calcutta compared.** We will next consider how much space the seven million people of London take. On this slide we have two little maps, of which the lower shows in pink the ground covered by the houses of London, and above we have Calcutta shown in like manner. In the next slide the map of the

**4.**  
**Areas of London and Bombay compared.** houses of London is repeated, but the outline above is that of Bombay, set on its island between the harbour and the ocean. Lastly, we have a comparison of the area of London with that

**5.**  
**Areas of London and Madras compared.** of Madras. In proportion to its population Madras covers a large area, for as you know there are several spaces within it planted with trees and without houses, but even Madras is small as compared with London.

Now let us start on our way through the town. The chief feature of London is the River Thames. The time was when London was only a small village on the banks of the Thames. To-day the Thames is the harbour of London, the greatest port in the world. Let

**6.**  
**The London Docks.** us go on a little steamer along the river, and let us begin with the docks. An immense quantity of food is needed to feed seven million people. Great quantities of coal are required to keep them warm in their cold winter, and to supply gas and electricity during their long winter nights. Much material is, of course, also required for the construction of their houses and public buildings. Of all these commodities a large part is brought in by sea, and is discharged in the docks. You will remember that at the end of the last Lecture we told how the water is held up in the docks, even when the tide falls in the river. Many of the smaller steamers, however, do not go into the docks. They are able to lie in the river itself and rise and fall with the tide.

When we leave the docks and proceed up the river, we come presently to a bridge, the nearest to the

**7.**

**The Tower  
Bridge.**

sea of many bridges which carry roads and railways over the Thames. This is the Tower Bridge. It is a very striking object, visible in any distant view of London, for as you see it is borne on two lofty piers, between which there is an upper and a lower way. The upper way is used by foot passengers when the lower way is lifted, as in the slide, to allow of the passage of ships with masts.

But, though the Tower Bridge is so remarkable a structure you must remember that it is only new. The most celebrated bridge in London, perhaps in the world, is called London Bridge. It stands next above the Tower Bridge. Two thousand years ago there was no London ; where the houses are now were then forests and marshes. Some seventeen hundred years ago the first London Bridge was built ; it was rebuilt afterwards more than once ; but no second bridge was put over the River Thames to connect the north and the south of London until a century and a half ago. For all those centuries there was

**8.**

**London  
Bridge.**

one London Bridge. By means of this Bridge the traffic of the south of England crossed the Thames to the north. But London Bridge stopped the ships coming up from the sea and prevented them from going further into the land, because in early days men could only build small arches for a bridge, and these were neither broad enough nor high enough for sea-going ships. So it was that London grew round London Bridge, for here was not only the lowest bridge on the river but also the most inland point to which sea-going ships could ascend. It was an important place, therefore, both for land traffic and for water traffic.

On the north bank of the river, a little below London Bridge, the Kings of England in old time

**9.**

**The Tower of  
London.**

built a fortress to defend the town, and also to keep its population in order. This fortress is still standing, although

against modern weapons it would now be useless. It is known as the Tower of London, and is a very interesting old place, quiet and silent amid the noisy metropolis around. The King's Crown and Coronation jewels are kept here.

**10.**

**The River below  
London Bridge.**

The Tower Bridge is so called because it crosses the river beside the Tower of London. Here we have a view taken from London Bridge, looking down the busy river to the Tower Bridge. You can just see the Tower of London on the left hand.

**11.**

**Plan of Greater  
London.**

On this slide we have shown again the map of the space covered by the houses of Greater London. The red indicates the area of the houses and streets. The green marks the pieces of tree-covered ground known as parks, which have been retained for the pleasure and health of the people of London. Note the River Thames, like a very broad street, winding through the midst of the town. Note also the docks branching from the river, and the bridges across it. Here, marked with their names, are the two lowest of the bridges—the Tower Bridge and London Bridge? You observe that there are no bridges lower than these, and that all the docks open below bridge. Do you see that London Bridge is still almost exactly in the centre of London? At first the river curved through forests and marshes; then there grew up a little town beside the bridge; that town went on growing larger and larger until it is now as large as a small country. But the head of the sea navigation is still at London Bridge, and the vast metropolis extends in all directions round its harbour. Each day there enter some 700 ships from all parts of the world, many of them from the coasts of England itself, but some from the most distant lands—from America, Africa, the East, and Australia.

**12.**

**Greater London  
with Central London  
marked off.**

You see this rectangular space marked off on the map of Greater London? I am next going to give you a map, on a larger

**13.** scale, of the central and most important part of London ; it is contained within the rectangle. Here it is, with the boundary of the City of London shown in red upon it. We see the chief streets, and we are able to mark out the route which we are going to take. We start from the Tower and the Tower Bridge ; we pass beneath London Bridge, with the City, the chief business centre, on our right hand ; we go under several more bridges and arrive at Westminster, where Parliament sits and the King-Emperor is crowned ; then we land, drive past Buckingham Palace, where the King lives, and so to the chief parks. Turning eastward again we return through Trafalgar Square to St. Paul's Cathedral, which is the Cathedral of London ; finally we reach the Bank of England, in the centre of the City, and come back to London Bridge, from whose neighbourhood we started. The whole round measures about eight miles, and yet, as you will remember, the map upon which we have traced it is but the central and smaller part of London.

It would tire you were I to attempt to show all the bridges under which we pass, but there is one which we must not omit. This is Waterloo Bridge,

**14.**  
**Waterloo Bridge**  
**and Somerset**  
**House.**

architecturally the finest bridge in London, perhaps the finest of all the buildings in London. The road, as you see, is quite level, and it is carried upon a series of great stone arches. The bridge is called Waterloo Bridge because it was completed soon after the Battle of Waterloo. As we go through London you will find that there are two famous battles—the Battle of Waterloo on the land, and the Battle of Trafalgar on the sea—which are constantly remembered by Englishmen. They were fought ninety and a hundred years ago. Because Britain was victorious in them the British Empire exists to-day. Therefore these battles and the men who fought them are deemed worthy of commemoration in the metropolis of the Empire. Beyond Waterloo Bridge we see on the slide a fine building known as Somerset House, the office into which

the taxes of the people of England are paid for the government of the country.

**15.**  
**The Embankment  
at Waterloo  
Bridge.** Here we have one of the arches of Waterloo Bridge, spanning the river-side road which is known as the Thames Embankment. The traffic from north to south is carried, as you see, over the bridge, while that from east to west passes under it. Here we have yet another view

**16.**  
**Cleopatra's Needle  
and  
Somerset House.** of the Embankment, with Somerset House and Waterloo Bridge in the distance.

We can see Somerset House better in this view, because the bridge is not in the way. In the foreground we have Cleopatra's Needle, a single piece of stone as high as a tower. It was brought from Egypt in a specially built ship, having been presented to the

**17.**  
**The Thames  
Embankment.** Queen of England by a former Khedive of Egypt. The next slide shows the bend of the river, with the Embankment beside it. You see the trees planted along the road—they are green in the summer, but in winter

**18.**  
**The Houses of  
Parliament and  
Westminster  
Abbey.**

the leaves fall and they are black. In the distance, showing over the housetops, is the great dome of St. Paul's Cathedral. At last we reach Westminster, and look across the water to two of the chief buildings of London, the Houses of Parliament and Westminster Abbey. The Houses of Parliament were erected in the beginning of the reign of Queen Victoria, but Westminster Abbey was built more than 600 years ago. We have here a view of the Abbey from the land side.

**19.**  
**Westminster  
Abbey from  
Dean's Yard.**

Westminster is the centre of the Empire. Here at the beginning of his reign the King is crowned. Here each year he opens the Session of Parliament. Let us see something of the splendid pageants which take place at West-

**20.**  
**The King opening  
Parliament—the  
State Coach.**

**21.**

The same—the  
Procession.

minster on these occasions. This, for instance, is the King driving in the Coach of State, with the Queen beside him. And here is a photograph of the procession through the streets at the opening of Parliament. Next we have the Coronation in Westminster Abbey, and in another slide a more general view of the interior of the Abbey on that great day when his present Majesty, the Emperor-King, Edward VII., was crowned

**22.**

The Coronation in  
Westminster  
Abbey.

**23.**

The same,  
another view.

by the Archbishop of Canterbury, in the presence of the chief men of the Kingdom, and of the Empire, and of visitors from all parts of the world. The picture is taken at the moment when the Crown, the emblem of royal authority, is being placed upon the King's head. In his hand he holds the Sceptre. In the next slide we have the King and Queen Alexandra seated upon the throne at the opening of Parliament, and then follows a portrait of the King in the Robes of State.

**24.**

The King and  
Queen at the  
opening of  
Parliament.

**25.**

His Majesty  
the King.

After the solemn state of these great ceremonies, we will return for a moment when the Abbey is empty, and look, not at living people, but at the monuments which record the famous men who in the past have helped to make the British Empire. This is called the Poets' Corner. Here in this particular corner of the Abbey are gathered together the monuments of the men who have written. By inspiring the British race with noble ideas they have helped to make the Empire no less than have the victors of Trafalgar and Waterloo. All the Abbey is full of monuments—in other parts of it you will find record of the statesmen who have given counsel to our Kings and Queens, and of the soldiers and sailors who have fought for them. Here, too, are the monuments of Viceroy's of India.

**26.**

Westminster  
Abbey—Poets'  
Corner.

written. By inspiring the British race with noble ideas they have helped to make the Empire no less than have the victors of Trafalgar and Waterloo. All the Abbey is full of monuments—in other parts of it you will find record of the statesmen who have given counsel to our Kings and Queens, and of the soldiers and sailors who have fought for them. Here, too, are the monuments of Viceroy's of India.

**27.**

**The Houses of  
Parliament from  
Whitehall.**

Let us cross the road to the Houses of Parliament, first glancing at them once more from the outside. We see the two lofty towers, visible, when the weather is clear, from every hill round London. This is the Victoria Tower, named after Queen Victoria, and this is the Clock Tower. When Parliament is sitting by day a flag is flown from the Victoria Tower, and when it sits after dark a powerful electric light shines from the Clock Tower, so that all men may know that laws are being made for the government of the Empire.

**28.**

**Westminster Hall—  
Interior.**

We will enter the building through Westminster Hall, which was part of the Old Westminster Palace of the Kings of England. Set round it are statues of our past Kings and Queens. Formerly the Parliament met to give counsel, and the Judges sat to give justice, in the King's Palace, but in more recent times the business of the country has become so great that it cannot well be housed in a single building. The Palace of Westminster has, therefore, been given wholly to Parliament, and has been rebuilt, except for this splendid Hall, which has been preserved.

**29.**

**House of Lords—  
Interior.**

Let us pass on, and look for a moment into the House of Lords in the morning when it is empty, and the sun is shining through the windows. Here is the throne upon which the King sits when he opens the session of Parliament each year. Parliament consists of two bodies of men, who are known as the House of Lords and the House of Commons. The Lords are the great dignitaries of the realm—the chief landowners, merchants, lawyers, and bishops. The Commons, on the other hand, though many of them are rich and clever men, do not help to make the laws because of their position in the State,

**30.**

**House of Commons  
during Debate.**

but because they are elected by the people of England to tell the King what the people wish for. Here is one of the most



celebrated of Englishmen, the late Mr. Gladstone, speaking in the Commons as the King's Prime Minister. It is the Prime Minister's duty each evening to tell the King what the Commons have said, and so, though the King is not there, the King and the Commons work together for the government and peace of the Empire.

These two large assemblies, the Lords and the Commons—each of them containing several hundred men—could not conduct the detailed business of the country. A small number of them, therefore, are chosen to be the King's Ministers, and the Ministers form a Committee or Council, which is called the Cabinet. Here is a picture of a Cabinet

**31.** Meeting. It meets privately; no one knows what the Cabinet says in its discussions—we only know what it decides to do. Presiding over the particular Cabinet shown in this picture is another great Englishman, now dead, the late Lord Salisbury. Among the other Ministers you will see Lord George Hamilton, who was at the time Secretary of State for India.

Near to the Houses of Parliament are the offices of the various Ministers. They are large and handsome buildings, for each Minister has a staff of officials under him. Here, for instance, is the Treasury, where the finances of the country are managed.

**32.** And here is the Admiralty, whence the British Navy in all parts of the world is controlled by means of telegraphic messages.

**33.** Here, seen from one of the parks, is the fine building in which are housed both the India Office and the

**34.** Colonial Office. The part of it to the left hand, with the tower, contains the Foreign Office, where business is transacted between the British Empire and foreign countries. The India Office is at this right-hand corner. The Prime Minister lives in a house opposite to the door of the Foreign Office, in a little street called Downing Street, and the Government is, therefore, often spoken of simply as Downing Street.

**35.** Finally, we have the Law Courts, which,  
**The Law Courts.** until lately were in the Palace at Westminster.

**36.** The Palaces of the King are only a short  
**St. James's Palace.** way from the Abbey and the Houses of Parliament. Here is St. James's Palace, where the Sovereign sometimes holds great receptions of his subjects. Do you see the sentry at the door? He is one of the King's Guards, a chosen body of soldiers, who remain near the King's Palaces, except when they are sent out of the country to take part in foreign wars. Here is Buckingham

**37.** Palace, where the King lives when he is  
**Buckingham Palace.** in London. Behind it there is a large garden. Remember, however, that great as he is, the King is a man, just as we are. He is a father and a grandfather, and he had a mother, our beloved Queen and Empress Victoria. In this

**38.** picture we have four generations of the  
**Her Majesty, Queen Victoria, with her Son, Grandson, and Great-Grandson.** Royal Family of England; Queen Victoria, who was our Sovereign, King Edward VII., who is our Sovereign, the Prince of Wales, who will be King after his father, and the little Prince Edward of Wales—destined, we hope, some day to ascend the throne of his ancestors. It is the throne of one-fifth of all the world.

From the King let us turn to his people. Here is a crowd of the people of London, gathered in the Park when Queen Victoria was taken to be buried. It was a mighty, silent crowd, never to be forgotten by those who saw it. Of course there are some people in the great crowds of London, as of all other places, who are bad and disorderly, but in general the people of London obey the Law. Here, for instance,

**40.** we have a busy point where four streets  
**Police regulating Traffic.** meet. Two policemen control the traffic, now letting this stream of carriages

pass, and now that. Often a driver is in haste, but when the policeman raises his hand, the driver silently waits until he has leave to proceed. Only in this way could seven millions of people live together and do their business. The policemen of London are a fine body of strong men, who very rarely lose their tempers or presence of mind, whatever the sudden difficulty with which they may be faced. Here is one of them politely telling the way to an enquiring stranger. You see

**41.**

**A Policeman.**

that he carries no firearms, yet there are only about 20,000 police to manage all

these people.

Perhaps the most beautiful possessions of London are the parks, in which, in the midst of their province of houses, the people take exercise and find health and amusement. None of the other cities of the world—not Paris, or Berlin, or New York, or Peking, or Calcutta—have anything quite similar to the parks of London, for they are not formal gardens or bare parade grounds, but pieces of rural country; and they are not

**42**

**Hyde Park—Rotten Row.**

just outside the town, but contained in its midst. This is a celebrated road in Hyde Park, where only horses and no carriages go. It is called Rotten Row. Here we see it on a

summer day, when the sun is shining, with men and women upon horseback taking the air. But the parks are not merely

**43.**

**St. James's Park—Children at Play.**

for the amusement of the rich people who can afford to keep horses; they are also for the poor. Here, for instance, we have a picture of children at play, and

**44.**

**The same—Children Fishing.**

here another, taken in St. James's Park, showing children fishing for the little fish that live in the water of the lake. In Regent's Park there is a Zoological Garden,

**45.**

**The Zoological Gardens.**

in which are kept animals from all parts of the world. Here we see a group of children, who, by way of a holiday

treat, are having a few moments on the back of an elephant. These parks of London have much money spent upon them, so that the poor people of London

**46.**

**Flowers in  
the Park.**

have in parts of them gardens to look upon which are as fine as the gardens of rich men. Here, for example, we have a scene among the flowers in Hyde Park. Nor must we forget the

**47.**

**The Crystal  
Palace.**

Crystal Palace, an immense house of glass, where the people may find amusement in all weathers. Of course there are still large parts of London which are ugly,

and completely covered with small houses. In these parts the life of the people in the dark, chilly, wet winter is not very bright. But men are always at work to better these wretched quarters, and gradually they will disappear. To serve the poor who fall ill, a number of large hospitals have

**48.**

**St. Thomas's  
Hospital.**

been built, and some of these are fine buildings, and well placed. Here, beside Westminster Bridge, is St. Thomas's Hospital, which faces the Houses of Parliament.

Now let us consider another aspect of London. To rule an Empire of 300,000,000 people men require skill, and must be educated. Nearly every man and woman in all the seven millions of London can now read and write. There are hundreds of free schools where these things are taught. But the Ministers of the King, and the judges, and the administrators who go out to the Colonies, require greater skill, and for them, and for the doctors and engineers and other learned people, there are Universities.

**49.**

**The Imperial  
Institute and London  
University.**

Here is the fine building occupied in part by the Imperial Institute and in part by the University of London. You know of the University of London, because it holds examinations not only in London but also in other parts of the Empire—for instance, in Ceylon.

Here we come to another of the great centres of learning in London. This is the British Museum, in which have been gathered historical treasures and documents from all parts of the world. The library of the museum contains more than a million books. In the room that is here shown, you see on the stand in the centre one of the most celebrated of all documents. It is written on a stone, called the Rosetta Stone, because it was found at Rosetta in Egypt. Men have learnt from it—because it is written in two languages side by side—to understand the ancient language of the Egyptians. It is necessary to gather these treasures together in the centre of the Empire in order that learned men may study them conveniently, and compare them with one another, without having to lose time in long journeys.

Now let us leave Westminster and the West End of the town, and as we drive through the streets towards the City of London, the place of merchants, let us stop on the way for a moment to see some of the chief monuments which record the history of the British Empire. This is

**51.** Trafalgar Square. Admiral Lord Nelson, who won the battle and died in the moment of victory. There in the centre, standing upon a smaller column, is a more recent monument, erected in memory of General Gordon, of whom probably you have heard. He fought for China in the Taiping rebellion, and afterwards died for Britain at Khartoum.

**52.** St. Paul's Cathedral—West Front. Next we come to St. Paul's Cathedral, of which this is the West Front and the chief entry. Before it is a statue of Queen Anne, one of the Sovereigns of England, who lived 200 years ago. The Cathedral was rebuilt in her reign. Here is the interior, with the sunbeams

**53.** striking down from the dome. To the  
**St. Paul's Cathedral** left is the tomb of the Duke of  
**—Interior.** Wellington, who won the battle of

**54.**  
**Nelson's Tomb.** Waterloo. In the crypt below is also  
the tomb of Lord Nelson, who saved the  
Empire in the battle of Trafalgar. Here

**55.** we have another and nearer view of the  
**Wellington's Tomb.** tomb of the Duke of Wellington.

**56.** We will now drive on to the middle of  
**The Royal Exchange** the City. Here to the left is the Bank of  
**and the Bank.** England, the centre of the finance of the  
Empire. Beside it is the Royal Exchange,  
on the upper floor of which the insurance of ships at sea is  
effected. The statue is of the Duke of Wellington, and  
was erected by the merchants of London. See the dense  
traffic of carriages, for this is the very heart of the business  
quarter of London, and it is the busiest time of the day.  
If you saw this very spot late on a summer's evening, or if  
you saw it on a Sunday, the day of rest, you would find it  
quiet and nearly empty.

**57.** Had we climbed just now to the  
**View from the** top of St. Paul's Cathedral and looked  
**Dome of St. Paul's** eastward over the City, we should have  
**Cathedral.** seen in the background the river and the  
Tower Bridge, but in the foreground the  
broad roof of Cannon Street Railway  
Station. There are many railway stations in the City, and for  
the following reason. The City of London, which measures  
one square mile, is occupied at night by only 27,000  
people. In the daytime there are probably 360,000 people  
at work in it. These people go out at night to sleep in  
Outer London, and are brought back in the morning by  
trains, by omnibuses, and by cabs.

**58.** This diagram shows you clearly the  
**Day and Night** meaning of these facts. The largest (pink)  
**Populations of the** square represents the population of Greater  
**City.** London. The very small (black) square  
in the centre is the night population of the City. The

square (red) of intermediate size represents the number of the people who crowd into the City in the daytime but at night sleep without. So that the City is like a huge pulsating heart, which sends its blood outward through the streets and along the railways at evening, and receives it back in the morning.

Finally, we enter one of the chief stations of London, whence the trains start, not only at morning and evening, in and out between the centre and the suburbs, but also on longer journeys past the green farms and busy factories of Britain to the coasts which everywhere surround it. London is only the heart and the brain of the Empire; it could not stand alone, for there is no food grown in it. London is great only because Britain is a productive country and the British Empire is great. Therefore, when we have rested after our sight-seeing in the metropolis, we will go out to the green fields and the smaller towns, and will see what England and Scotland and Ireland are like, for from them have come the men who have made both London and the Empire.



## LECTURE III.

## THE SCENERY OF THE UNITED KINGDOM.

At the close of the last Lecture we found ourselves in one of the chief railway stations of London, from which the railways go out through the open country—twenty different lines in twenty different directions—to end on the coasts around the island of Great Britain. We might, of course, take train from one of these stations and travel rapidly through the country; but I prefer that you should go another way, by which you

**1.** will see more. Here, in this map, we  
**Physical Map of** have the English Channel, up which our  
**British Isles.** steamer brought us from India. We see the promontory of Kent round which we came; we note the Straits of Dover across which the Indian mails are carried; and we see the Thames, up which we passed into the midst of the great city—to the Tower Bridge and London Bridge.

I now propose taking you up the River Thames beyond London. We will travel up the river almost to its source here in the Cotswold Hills, and we will look from the brink of the hills westward over the country beyond. This will give us a very good idea of the rolling, fertile plain which occupies all the South of England. Then returning to the east again we will follow the coast round from the Fens to Kent, and to the promontory of Cornwall. The rest of Britain may best be seen in two strips. The first begins here in Cornwall and Devonshire, and extends northward through Wales and the Lake District into the east of Scotland. It is mountainous, and has many beautiful wooded landscapes. The second begins in the South and West of Ireland, and extends up the West of Scotland. This also is mountainous, but it is on the edge of the stormy ocean, and is mostly



naked and without trees, but has magnificent cliff scenery.

Now let us start on our trip through  
**2. Thames Steamboat on Bank Holiday.** Britain. Here is a steamboat on the Thames above London. It is crowded with people, for the photograph was taken on a Bank Holiday. On four week-days, and four only, in the year the Banks are closed, and business ceases, while everyone makes holiday. Those who live in the metropolis naturally spend the day outside, among the green fields and on the river banks.

Here is another scene on the Thames.  
**3. Richmond Bridge.** It is near Richmond Bridge. There are holiday makers who prefer to spend their holiday quietly, fishing in the river. Next  
**4. Richmond—View down the River.** is a view from Richmond Bridge itself. See the crowd of little boats ready for those who would take their pleasure in

that manner.

We gradually leave the neighbourhood of London and come to quieter reaches of the Thames, where the water is never disturbed by the tide, and rich green meadows edge the silent stream.  
**5. Magna Charta Island.** This is a little island in the river where, seven hundred years ago, Magna Charta was signed—the famous document by which the then King of England granted to his people ways of justice which have been practised ever since. But the island is now merely a little green spot, surrounded by rippling water, upon which a house has been built for the refreshment of passing boat people.

We glide on to places where the woods cover steep slopes and overhang the water. Here, for example, we have such a wooded bank, crowned with the country house of a rich man. And here  
**6. Clieveden.** another wooded scene, with a timber  
**7. Nuneham Bridge.** bridge, and a cottage hidden away among the leaves.

But we must not think only of holidays, or of the Thames as an idle river in a rich country. England is a fertile country, and cultivated almost from end to end. There are crops of grain—wheat, barley, and oats, which, as you know, in the northern countries take the place of rice—and there are also broad fields of green grass where the cattle and sheep feed. Here is a

**8.**

**Landscape from  
Cotswolds.**

view taken from the edge of the Cotswold Hills, near the source of the Thames. It gives a good idea of an open countryside in England. The land, as you see, is cut into fields by hedgerows, which are long belts of green, growing bush planted for the purpose of preventing the cattle and sheep in one field from straying into the next, where they might damage the standing crops. If you looked down upon such a country from a balloon, you would see it divided into little oblongs and squares, all beautifully kept. Many of them would be green with grass, but others would change in colour with the season, showing ploughed soil in the winter, green growing corn in the spring, and golden harvest in the autumn. But at all times the bushy hedgerows would strike you most, for in other

**9.**

**The same—Bredon  
Hill.**

countries men use fences of dead wood or of iron wire, but the green hedges of England, often bright with flowers, are a sight never to be forgotten. The roads

**10.**

**The same—Saint-  
bury.**

traverse the country between two lines of hedge almost all the way. Here is another scene in the same part of England, and yet another, with the fields and hedges spreading away to the horizon.

**11.**

**Landscape—Brook  
and Poplars.**

Next we come to a landscape such as you find beside the brooks which wander sluggishly through the rich plain. Note the tall poplar trees set against the shining western sky, for it is evening, and the man and boy are going home after their work in the fields.

There are parts of England which were once marsh, but have long been drained and brought under tillage. In these the hedges are usually wanting, for the ditches serve to divide the fields. The chief district of

**12.** this kind is known as the Fens. It is  
**Scene in the Fens.** situated near the East coast. Here we have a Fen scene, with a horizon like that of the sea, so level is this old marsh land. Note the windmill for pumping the water out of the lower ditches into the higher. The wind sweeps freely over the great flat expanse.

You must remember that, although it very rarely rains as heavily in England as in India, and there are no Monsoons, yet there is rarely a season of so much as a few weeks in which it does not rain a little. England is, therefore, a moist land on the whole. It must once have been clothed with forest and marsh almost from end to end ;

**13.** now, however, there are left only small  
**Surrey Pine Wood.** patches of woodland, and no marshes at all. Here is a typical scene in a pine wood in a sandy district not far from London. Most of the woods are round the parks or pleasure grounds of rich men. These parks are among the most beautiful spots in England. You will remember that in the last lecture we saw how that the public parks of London were perhaps the most beautiful and characteristic things in the metropolis. If you were to look down from almost any high hill upon a cultivated English landscape with fields and hedges, you would probably notice two or three large green spaces—larger than a good many fields put together. These would arrest your attention because of their lack of hedges and because of the trees scattered about them. Round their borders you would see several plantations or patches of woodland. In the centre of each would be the mansion of a rich man. The people of the neighbourhood are generally allowed to go freely through these parks, and to use them as playgrounds except, of course, close to the house. Here we have a scene in Knole

**14.** Park. One of the most remarkable points about the parks of England is the fact that since there is no undergrowth, and since the trees are felled and thinned out, each tree grows to perfection, spreading out to its proper shape in a way that we rarely see when trees are crowded together in a

**15.** forest. Some of these park trees grow to a magnificent size, and to a great age. "The Monarch," Here is one in Cassiobury Park, known as Cassiobury Park. "The Monarch."

Immediately round the park-house of the great man you will find a garden—a garden that is kept, every yard of it, with the greatest care. The grass is beautifully green, and is cut short, so that it becomes a natural carpet. The hedges are pruned, and grow so thick that they become living walls through which you cannot see. To these gardens are brought trees and plants from all parts of the world. There are even tropical plants, but these must of course be grown under cover of glass, which lets in the sun's light and heat but keeps out the cold. You remember the giant glass house of London, which was spoken of in the last lecture as the Crystal Palace. In the garden before us

**16.** we see a tree known as the Araucaria, which is brought from the cooler parts of South America, and will grow in the gardens of England without glass shelter. Palms, however, will not grow in England in the open air, though they are often exposed in the gardens as special treasures during the summer.

Let us now look at some of the more exceptional scenes in the British Isles, for the things which to you are least familiar—the great green carpet of grass, the long lines of green hedgerow, the white roads between twin hedges—all these things, which to you appear strange, occur for so many miles in the country of England, that they are common and hardly noticed by the people who live among them. There are scenes in the British Isles, however, which even English people go to look at, and in some parts these are so beauti-

ful that people of other countries travel far in order to see them. We will begin with the coast districts along the East and South of England, and then we will go to the two strips of mountainous country which I pointed out to you just now on the map.

This is a scene on the Downs—long lines of hill made of the same white chalk which is exposed in the cliffs of Dover. The chalk forms treeless, hedgeless, breezy uplands with winding and branching valleys. The hills between the valleys are rounded like great shoulders, and are all overgrown with a thin grass, short like velvet, upon which feed many small sheep. Here and there the white chalk shows through, as it were a scar on the hillside, and the roads are white lines running up and down hill. Here is a view on the edge of the Down country, overlooking lower wooded ground. The valley entering the

**17.**

**The Downs—  
The Devil's Dyke.**

hills to the right is very deeply cut and is known as the Devil's Dyke. At Dover, and at several other places on the coast, the Downs come to a sudden end at the cliff brink, and you can see layer upon

**18.**

**Dover Cliff.**

layer of white chalk cut short by the waves rolling in from the sea. To-day, in places like Dover, men have built walls which stop the waves from breaking away more of the land.

The people of England are very fond of the sea-coast and many of them live there for a time each year for reasons of pleasure and health. There

**19.**

**Sea breaking  
at Lyme Regis.**

is exhilaration in such scenes as this, where the waves break against the stone piers which have been built out into the sea.

**20.**

**Cliff at Sidmouth.**

Or again, what could be more pleasant than to wander along such a coast as this, and to note the evidence of the sea's might in the broken

**21.**

**Beach at Exmouth.**

and caverned rocks? But children love sandy shores, where they may dig with small spades and build castles of sand, which for a few moments resist the waves of the incoming tide. The tides are large along the British coasts, and

in many parts broad shores of sand are alternately covered by the water and uncovered.

Now we come to the first of the two strips of mountainous country which I have described to you on the map as occupying the West and North of Britain. There is much rain in these districts, brought by the west wind from the neighbouring ocean. Here is a little

**22.**

**Clovelly.**

village by the sea in the West Country. It is called Clovelly. You see the houses of the fishermen running up the hillside, and you see how the whole hill is covered with trees, because of the moisture of the air. Let us drive

**23.**

**Lynton—Road  
through Wood.**

into these woods by the roads which have been constructed through them. This is

**24.**

**Lynmouth  
Waterfall.**

a view at Lynton in the same West Country as Clovelly. Here is yet another scene in the district showing a waterfall in the wood. If we drive further inland, up some valley, we emerge

presently on to the high ground above, where the violent winds and the torrents, fed by the rains, prevent the growth of much wood, and give us naked landscapes such

**25.**

**Dartmoor.**

as this upon Dartmoor. You notice here a characteristic of the hilly parts of England; the green hedgerows are wanting, and the fields are divided by stone walls—rough stone walls, without cement. But even

here there grows a low bush, called gorse, which bears many small yellow flowers, and at times this bush covers entire hillsides with a cloak of brilliant gold. Now

**26.**

**Land's End—  
Longships  
Lighthouse.**

we come to the rocky coast of Cornwall, known expressively as the Land's End. It is very different from the tamer edge of the chalk country. See how the hard dark rocks have been shattered by

the mighty Atlantic waves, and see how the dangers which they present to navigation are guarded against by the Longships Lighthouse. Notice the ship going round the

point beyond the lighthouse. It is steering northward to go up the channel of sea which divides the island of Great Britain from that of Ireland.

We will travel gradually northward through the inner strip of mountainous country. We come first to the peninsular land of Wales, where live the Welsh people, some of whom still speak the Welsh language, though most of them can now talk English. Here is

**27.** a view from the island of Anglesea, across  
**Snowdon.** the Menai Strait to the barren heights of Snowdon, the highest mountain in Wales.

In the foreground are bridges over the narrow strait, the one for the railway, the other for the road. The name Snowdon is derived from the fact that the white snow which falls in the winter lies upon the summit longer than upon the lesser heights around. But remember that in Wales you are still in the middle strip of Britain, and deep down in the valleys between the mountains there are rich, woodland scenes. Here is a spot on the River

**28.** Wye. It is a stream of pure water  
**Welsh Bicknor—** coming down from the mountains, with a  
**Cattle in River.** wood covering the hillside and cattle

**29.** cooling their feet in the water. Here is  
**The Wye.** yet another scene on the same river, where a gorge traverses the rocks, but the steep

slope is overgrown with trees because of the moisture.

Next we go northward from Wales into that part of the North of England which is called the Lake District. In the northern, and also in the more southern regions of the world—in parts of North America, in parts of South America, and in New Zealand—there are countries sown all over with the most beautiful lakes—lakes that are narrow and long and deep, with rivers flowing into one end and out again from the other end. These lakes are often in mountain valleys, and if the slopes on either hand be wooded, they present some of the most beautiful scenes in the world. Outside Britain such valley lakes occur in Norway, in the west of North America, in the west of South America, and in

New Zealand. The Lake District of England is a little knot of mountains, with deep valleys radiating from the central peaks like the spokes of a wheel. Each of the valleys contains a lake.

**30.**

Ullswater.

Here is a view of Ullswater, one of these lakes. Do you see the combination of hill, and water, and green tree-growth which together make the picture?

**31.**

Lodore Falls.

Here is another scene in the same Lake Country, where the clear, fresh water from the hilltops comes leaping over the little rocks through a tunnel of green leaves, with here and there a gleam of the sunshine piercing through. And all the time there is laughter, as the poets say, to be heard

**32.**

Bridge at Lodore.

in the tumbling water. Yet one more scene of the same kind from the same Lake Country.

Let us now go on to Scotland. In part it is a lake-country like the North of England, but on a rather larger scale. Here is Loch Lomond, one of the

**33.**

Loch Lomond.

most famous of the Scottish lakes. The word loch is Scottish for lake. The Scottish people used in many parts to talk a language of their own, but, like the Welsh, most of them now talk English, and form, with the English, a single people, loyal to one king.

**34.**

Ben Venue.

Here are a few more views in the same country. This is Ben Venue—the word Ben in Scottish means “mount.” We note in this slide the same combination of beautiful mountain forms, water, green foliage, little islands with green trees upon them, and houses hidden away in the nooks. It is a wild and yet a soft and inhabited country. It is loved by the Scottish people, whose great writers have written tales and poems about it. You know that it is the poetry and the songs and the legends of a race which make a nation proud. Scotchmen



working in many a distant land, remember the time of their childhood when they lived among these scenes, and far away they still read the books which tell of them.

- 35.** Here is the Pass of Killiecrankie, famous in history for a battle of a hundred and sixty years ago—one of the last battles fought within the British Isles. And here, **Killiecrankie.**
- 36.** lastly, is Loch Katrine, with a steamer conveying tourists to enjoy the scenery. **Loch Katrine.**

Loch Katrine is close to the manufacturing district of Scotland, where is Glasgow, a city of a million inhabitants. Now great cities have great wants, and one of the wants—most costly to supply but essential to health—is pure water. The water of Loch Katrine, deep and clear, gathered from the mountains, is carried underground through a tunnel pierced by man to supply the great city of Glasgow. Wherever you go in the British Islands you will find within a few miles of one another the silent beauties of Nature, and teeming, noisy homes of millions of people, for the land is but a small one, and is crowded with inhabitants.

Let us now pass to the second strip of mountainous country—to the bleak coast-land along the Atlantic edge of Ireland and Scotland ; and here let us first visit a district containing some of the chief natural wonders of Britain. You know that in certain parts of the world there are mountains called volcanoes, which have heat within them, and throw up great clouds of steam, to be seen glowing in the brilliant light for a great distance round. At times streams of hot liquid rock flow from them, which may cover a whole countryside, destroying vegetation, houses, and people. In Asia there are such volcanoes, in Japan, in the Phillipines, in Sumatra, and in Java, but fortunately there are none in India. In the British Islands also there are to-day no volcanoes, but before history began this region had volcanoes on a magnificent scale. In the West Country beside the ocean—in the north of Ireland and in the West of Scotland—there

once welled up from underneath immense quantities of flowing hot stone, which hardened into thick beds of rock. While the stone was cooling it usually cracked, as you may see the silt beside river banks crack in hot sunshine along many lines crossing one another. In the same manner, this liquid rock cracked as it cooled, and because it was of very even consistence the cracks were regular in their distribution. The result was that the rock was split into columns standing side by side. Here, in the North of Ireland, is such columnar rock. The place is known as

**37.** the Giants' Causeway, for the people in the North of Ireland who lived centuries ago, Giants' Causeway. and were ignorant, wondered at this beautiful regular rock structure. The tops of the columns are like a pavement, and the Irish said that the pavement must have been made by giants. Therefore it was called the Giants' Causeway. But each slab, as

**38.** we see in the next slide, is the top of a column and is separated from Basalt—near view. its neighbouring columns by the cracks which formed in the cooling rock as it solidified. So we realise how much more wonderful is Nature than man in his ignorance is apt to think. But we realise also how the poetry of a race begins, and we understand the love with which Irishmen and Scotchmen, scattered over the world, look back on the country of their childhood, which is not only beautiful, but wrapped in the legends told them by their nurses.

**39.** This is the island of Staffa, where we see the same rough pavement of column tops, and a wall of column sides. In

**40.** places, where the waves of the ocean beat fiercely upon the exposed parts, some of the columns have been removed, so that the rock above has been undermined and caves have been formed, which resemble, with their vaults above and their chiselled walls on either hand, some great temple made by man.

Now let us away to the far South-West of Ireland. There, hidden in the midst of high mountains, are the Lakes of Killarney. This is one of the most beautiful spots in all Britain, for the lakes are sheltered, and though close to the ocean are wooded along their shores. Here is a view at

**41.**  
**Killarney.** Killarney, across the lakes to the mountains which neighbour them. Hanging round the heights are the mists and clouds of the Atlantic. All this district is bathed in moisture, and green the year round, but hardly ever free from cloud. It is the combination of mountain, lake,

**42.**  
**Killarney,**  
**Old Weir Bridge.**

wood, cloud, and sunshine which gives an ever changing, always flickering, beauty to this part of the ocean edge. Here is another scene at Killarney. The boat and the men are waiting to take visitors down the stream.

**43.**  
**In Connemara.**

**44.**  
**Connemara—Lough**  
**Scene.**

Northward of Killarney, upon the edge of Ireland, is Connemara, a region of wild, naked rock scenery, so wet and poor that over large districts bog moss clings to the surface instead of grass. We see here the torrents of rain water descending from the mist-bathed mountains. This is another scene in the same country of Connemara with a rare clump of trees, making still more evident the general nakedness of the landscape. The beauty of it depends on the shapes of the hills, and on the alternation of land and water.

And now we come to the grandest, most lonely scenery in the Western Highlands of Scotland. Here on the heathery and grassy moors, which spread for miles and miles over the mountain heights, are still to be found some of the wild animals of Britain, which elsewhere have been driven from the land by civilisation. This is a stag of the large species

**45.**  
**Highland Scene—**  
**A Stag,**

known as the Red Deer. You see here the colouring of the moors and the atmospheric effects which you must put

**46.**  
Highland Scene—  
A Golden Eagle.

for yourselves into the black and white photographs that follow. But first we have another colour photograph, a golden eagle beside her nest on the crags.

**47.**  
Sligachan, Skye.

Now we have two or three views in the Island of Skye. They are in black and white, but your minds must clothe them in the rich tints we saw just now. Note the treeless character of the scene. And see

**48.**  
Glen Sligachan,  
Skye.

here a mountain rising nakedly to the sky, without even the covering of grass or heather. And again, in this same Island

**49.**  
Loch Coruisk, Skye.

of Skye is Loch Coruisk, one of the wildest and remotest spots in the United Kingdom. From the head of the loch there is a walk of several miles over a mountain pass before you reach the first habitation of man. So curious is the contrast between the ocean edge of the British Islands and the thickly populated plain of England. London is the largest city in the world, but the Highlands of Scotland are among the least populated regions of all Europe. Here, therefore, is the playground of many of the British people, who go in the summer time to walk over these mountains, to steam through these lochs, to catch the fish, and to shoot the deer and the birds. So they gain the health which enables them to work in London at the business of the Empire during the dark winter.

**50.**  
Clett Rock,  
Thurso.

Finally we come out to the ocean itself, and here we see the great history of Nature. Layer upon layer, hundreds of layers thick, we have the beds of rock which were once laid down at the bottom of the sea. They are now dry and hard, and have been cut into by the waves, so that this stack of rock, which was once a piece of Scotland, is now detached as a little island.

**51.**  
Duncansby Head.

Here is yet another scene where the rocks are of a different kind, and the shape of the islets therefore different.

**52.**  
**Atlantic Rollers.**

**53.**  
**Sunset on the  
Atlantic.**

These are the rollers of the rough northern sea, which work upon the hard stone. But occasionally even the Atlantic Ocean calms. As we look out to the west on this lovely summer evening, let us remember a fact never to be forgotten. The islands of Britain, which centre in London, with all their natural beauty and their 43 millions of people, are what they are, the focus of a great Empire, partly because they are set as islands in the ocean, and partly because they were peopled long ago by proud and masterful sea races of men.



## LECTURE IV.

### HISTORIC CENTRES AND THEIR INFLUENCE UPON NATIONAL LIFE.

The English did not always live in the British Islands. They came, long centuries ago, across the sea from the mainland of Europe. Before them there lived in the islands peoples of whom we know but little. Some of these early peoples have, however, left to us monuments, which have been preserved in the more lonely parts of the country.

**1.** They were apparently temples, built with great stones, such as we see here at Stonehenge. Of the language of the people who built them we know nothing—of their arts of life we know little. We believe that they were barbarous tribes who offered human sacrifices ; but at least they must have had some command over machinery, or they never could have raised such stones as these, which are more than twice as high as a man.

After these people there came others, and yet others, and at last a very powerful and highly civilised people, the Romans, who conquered nearly all the Western world. They

**2.** conquered England, but never Ireland or Northern Scotland. The Romans have left monuments in various parts of the country, of which the most remarkable is this wall across the island. They did not care to invade those rugged regions of the North, filled with mountains and great moorlands, which we saw in the pictures of the last Lecture. In Scotland there continued, therefore, to dwell the wild peoples who inhabited all the island before the coming of the Romans. The mountaineers were kept out.

of the South by a stone wall, built right across the island, the remains of which are still for the most part standing to-day. The Roman wall shows you something of the strength of the Roman people, to whom the islands of Britain owed their first civilisation.

Here is another evidence of the Roman epoch in Britain. It is the ruin of a Roman bath

**3.** in the town which is now called Bath.

**Roman Bath  
at Bath.**

The houses around are, of course, modern. Hot water rises at Bath from great depths, and is used for medicinal purposes. The springs were known to the Romans, and for that reason they built a Roman city here. All the upper portion of the building is, as you see, gone, but there remains the bath itself, with the steps leading down to it, and the bases of the columns which formerly supported a covered way around. The Romans came from the South—from the Mediterranean—and experienced a climatic difficulty in Britain, just as white men to-day experience one in the tropics. But white men have difficulty in tropical climates because of the heat; the Romans had difficulty in the northern countries because of the cold; and therefore it was that they valued the warm water of the baths at Bath.

Christianity was first preached in Britain while the Romans were there. It was carried by missionaries even beyond the Roman frontiers into Ireland, and afterwards into Scotland. When the Romans left the country, after ruling there for 400 years, there came over the seas the forefathers of the English—a race of wild, bold seamen. They were not Christians; but at first they did not conquer either Ireland or Scotland, and the

**4.** Christian religion continued among the

**Round Tower at  
Glendalough.**

ancient peoples of those countries. Some of the most ancient of the Irish and Scottish monuments relate to the time when the English were newly come into England. This round tower, for instance, is probably a monument of that time. It is in

a very beautiful mountainous portion of Ireland, and is known as the Round Tower of Glendalough.

Crossing the sea to Scotland, we come to the islet of Iona, placed out in the Western ocean beyond the coast of the mainland of Scotland. Here are the ruins

**5.** of a Cathedral of great antiquity. At Iona Cathedral. Iona there ruled the Lord of the Isles, who was King over the pirates from the North. They seized all the Western isles of Scotland and held them until about six hundred years ago, when they were defeated at sea, and there was peace on the ocean off Britain.

Let us now return to England—to the England which had been conquered by the Romans and abandoned by them, and had been conquered afresh by the tribes of the English from over the water. Let us pass on through some dark centuries, as they are called, because history has little to tell of them, until we come to the first great Englishman, King Alfred the Great, from whom our present King-Emperor, Edward the Seventh, is descended. King Alfred lived a thousand years ago, and is called Great because he

**6.** united the tribes of the English, and made the Kingdom of England. Here is the monument erected in his city of Winchester on the thousandth anniversary of his death.

King Alfred's  
Statue at  
Winchester.

Some generations before King Alfred, Christian missionaries came again to the land of England and slowly converted the English to Christianity—

**7.** first one tribe and then another. Here is, perhaps, the most ancient of the Christian churches of England—it is at Bradford-on-Avon. The missionaries came from Rome, and taught the English to build in stone, with round tops to the windows, as the Romans built.

Bradford-on-Avon  
Church.

We have now mentioned five ages of English history. First, were the Ancient Britons; second, the Roman conquerors; third, the English conquerors; fourth, the



Christian Missionaries; and fifth, was King Alfred. A sixth age had to elapse before the England which we know was made. In this a new race of fierce seamen came over the water, who were called Normans, or North men. One branch of them were the Pirates just now mentioned at Iona. Another branch conquered the southern part of Britain, the part now called England, and added one more strain of blood to the people who have ever since lived in Britain and sailed the ocean. The Normans completed the work of King Alfred, and the English, being now united, have not since been conquered from across the water. You see that it was by no chance that the people of Britain became the race of sea-fighters and of rulers beyond the sea such as they are now known in all parts of the world.

All this time the English were advancing in civilisation. Though they fought among themselves, though they obeyed their rulers with difficulty, already they venerated the churches of their Christian religion. While they could not put their wealth into beautiful houses, which might be pillaged, yet they were able to build magnificent churches, which all men respected, and these churches are the most splendid monuments they have left to us. Before they crossed to Britain the Normans stayed for a time on the mainland of Europe and learned there a new style of building.

Here is the Norman church of Iffley.

**8.**  
Iffley. You still notice the rounded Roman arches, but the building is clearly of a

**9.**  
Durham Cathedral. more finished type than the church of Bradford-on-Avon, which we saw just now.

Next is the great cathedral at Durham, also Norman work, but with some later building added, for in each generation men loved to enlarge and enrich the chief temple of their town or district.

We now come to a Cathedral of later date. It is that of Canterbury. Here, as you see,

**10.**  
Canterbury Cathedral. the windows have pointed tops to them, for they are built in the Gothic style,

which succeeded the Roman style of the Normans. Canterbury Cathedral is a very large church. Its three great towers contain bells which call the people to worship. This is the cathedral of the Archbishop of Canterbury, and is placed where the missionary Augustine first taught the Christian religion to the English, who had lately crossed the seas into Britain.

Here is the west front of Salisbury Cathedral. You see clearly that we are coming into civilized times, for the men who built this cathedral could work in stone with delicate skill. They no longer employed great massive columns and rows of narrow, round headed windows. All this front has pointed arches, and in many of them you have sculptured images of the good men of past times.

**11.**

Salisbury—  
West Front.

This is Wells Cathedral, surrounded by beautiful trees and gardens. And here is the front of the same cathedral, with still more delicate and elaborate work. Do you realise the love which the builders put into each little piece of what they did ?

**13.**

Wells—West Front.

And here lastly is the interior of Oxford Cathedral. It is very interesting, because upon arches of Norman date, roughly and massively hewn, you have a vaulted roof of the latest and most delicate Gothic or pointed style. In this respect the cathedrals of

**14.**

Christ Church  
Cathedral, Oxford  
--Interior.

England are like everything else that is English. In each age Englishmen accept with veneration what their forefathers hand down to them, and adapt it with as little change as possible to the needs of their own time. It is only so that a mighty and lasting Empire can be founded.

In the country parts of England, where no town requires a large building for worship, here and there a church has fallen, in times of past strife, into decay. But the people of the present take care of these ruins, and regard them with veneration, for they are often very beautiful, and

preserve a record of the past most faithfully, because there has been no need to adapt them to modern requirements.

**15.** Here, for instance, is the ruin of Glastonbury Abbey, and here that of Netley Abbey. In both, as you see, the roof has fallen in, but you can imagine what kind of church there must have been formerly. With these exceptions the buildings in England are maintained in perfect order, for the cool, moist climate requires that, for comfort sake, the weather should be kept out.

**16.** While the cathedrals were built without defence, and beautiful churches were often set in the green country and yet were not attacked even in wild ages, the houses of the great men of the land were formerly small fortresses or castles. These castles still stand in different parts of the country, having in some cases been adapted to modern requirements; but for the most part they have become ruins, for it was easier to build again from the foundations. Moreover, many of them were broken in warfare.

**17.** Here is Stirling Castle, set high on a rock, in Scotland; and here is Alnwick Castle, built near the frontier between England and Scotland. For centuries there was much fighting between the English and the Scots, though now, as you know, they have joined together in friendship, and are subjects of one King.

**18.** Here is the greatest of all the Castles. It is Windsor Castle—the castle of the King of England. It stands on a hill beside the River Thames, higher up the river than London. You can see the Round Tower in the centre of it. In all the old castles there was a strong refuge in the centre for final defence in case a besieger should effect an entry into the outworks, and this most important part of the castle was called the “keep.” At Windsor the Round Tower was the keep. Here to the right we have

**19.** Windsor Castle.

the church of the castle, called St. George's Chapel. In the old times there lived within such a castle as this of the King of England almost a whole town of his servants. You will remember from the second lecture that the Parliament and the Judges used to sit in the King's Palace at Westminster. In modern times people think it healthier and more comfortable not to be crowded.

**20.**

**Windsor Round  
Tower.**

Now we go inside the castle and stand beside the Round Tower. You see from the slightly pointed heads of the windows that the Tower belongs to a later time than that of the Normans, who built with round-headed windows.

Here is one more view of Windsor Castle. The Round Tower is in the background to the right,

**21.**

**Windsor from  
Home Park.**

for this front of the building is new, and is in the nature of a palace rather than a castle. These wooded slopes are the beginning of the beautiful park which lies round the castle. Here are the rooms in which used to live Queen Victoria, our Empress, the mother of King Edward.

Western history is divided into three periods which are generally known as Antiquity, the Middle Ages, and the Modern Times. The last of these periods began about four centuries ago. The Middle Ages included about a thousand years. The Romans belonged to Antiquity, but King Alfred is of the Middle Ages, and so are most of the castles and cathedrals, except St. Paul's Cathedral, which was built about two hundred years ago, when the earlier cathedral of London had been destroyed by fire.

It took the whole of the Middle Ages—a thousand years—to establish law and justice and order in England, a fact which shows with what care order should be treasured, once it has been attained. But at last men began to feel that even their rulers, who in a rough age are liable to attack, might leave their houses unfortified, and place them in the midst of pleasant gardens. This was the beginning of Modern Times. Here is Hatfield House, built for one

**22.** of England's most famous statesmen, the Lord Burleigh, who three hundred years ago, served one of her greatest monarchs, Queen Elizabeth. A few years ago Hatfield was the home of another British statesman, Lord Salisbury, who was a descendant of Lord Burleigh, and served a still greater monarch—Queen Victoria. You see how different from a castle is the appearance of this house. It has square broad windows, giving a flood of light within, even to the ground floor ; for the men who built it had no longer to fear that they would be attacked by arrows and by guns through their windows, and therefore they could afford to let in the light of the sun, which is loved in this cool Northern land.

But you must not think that all of England's greatness has been made by her rich and powerful men. It is the glory of England that some of the most valuable things done for her have been done by poor men. You remember from the second Lecture that in Westminster Abbey, not only was our King-Emperor crowned, with the dignitaries of the empire round him, but also that there is a space called the Poets' Corner, where are the tombs and monuments of some of the chief writers who have inspired the English with ideals of order and justice and freedom. These poets were mostly poor men—some of them very poor.

**23.** Here in the town of Stratford-on-Avon, in the centre of England, is the humble Stratford-on-Avon cottage, still preserved with care, in which at the time when the splendid house of Hatfield was built for Lord Burleigh, there was born and lived the greatest of all English writers, Shakespeare. To-day, in every town in which the English live throughout the world there are copies of at least two books, the holy book of the English—the Christian Bible—and the book full of human wisdom, which was written by Shakespeare.

In London, in the Cathedral of St. Paul, we saw the monuments over the tombs of Nelson and Wellington, the sailor and the soldier who won the victories of

Trafalgar and Waterloo. Two hundred years ago, that is to say a hundred years before Nelson and Wellington, there lived another great general, who commanded the armies of England

**24.**

**Blenheim.**

and won victories in the days of Queen Anne. He was the Duke of Marlborough, and this is the house, Blenheim Palace, which England built for him in gratitude for the victories he had won. In our own times, Queen Victoria and King Edward have given rewards to Lord Roberts and Lord Kitchener, whose names and deeds you know. Blenheim, as you see, is a modern palace, not a fortified castle of the Middle Ages. But it is built in the ancient style, for there was law and order in the Empire of the Romans, and they also could therefore build spaciouly and openly.

Now there is one kind of old building in the land of England which we have not yet mentioned, though it is very interesting and very important. The youth of the English race, and especially that part of it which in after years is to work for Government at Home, in India, and in the Colonies, is carefully brought up in the midst of monuments of the past. For Englishmen wish that the citizens of the British Empire should not think too greatly each of himself, but should think greatly of the State which they serve. Therefore they bring up their youths to know that among their ancestors there were also men who did good work for the Nation. The highest thing an Englishman can do is to play his part well in his generation by adding a little to the great

**25.**

**Eton—from  
Playing Fields.**

scheme of order and freedom which we call the British Empire. This is the ancient building of Eton, the chief of the public schools of Britain. It was founded by one of the Kings of England under the shadow of Windsor Castle. Here is another view of it, taken from the Thames, which flows between Windsor and Eton. And here are the boys amusing themselves in boats on their annual festival-day.

**26.**

**Eton—from  
the River.**

**27.**

**Eton—  
4th June.**

The view, as you see, contains the Round Tower of Windsor Castle.

When the boys have grown to be young men, they go from school to the Universities. There are two ancient Universities in England, well-known to not a few students from India, Oxford and Cambridge, each adorned with beautiful buildings and gardens, and full of memories of the great men of the past. There are also ancient Universities in Scotland and Ireland, and there are new Universities in England such as the London University. But the historic Universities of Britain are Oxford and

**28.**

Oxford—  
Magdalen Tower.

Cambridge. Here is the University of Oxford as viewed from the tower of one of its colleges. We see that it is a city filled with monuments and splendid buildings. This is the High Street in Oxford, with the Church of the University and some of the Palaces called Colleges,

**29.**

Oxford—  
High Street.

within which the young men live, together with some of the Professors who teach them. There are twenty-one of

**30.**

Oxford—  
Wadham Garden.

these colleges in Oxford, each with 200 or 300 students living within. Here is the garden of one of the colleges, where men may walk and think.

**31.**

Cambridge—King's.

Let us visit for a moment the sister University of Cambridge. This is the Church in the college that is called King's College, for it was founded by one of the ancestors of King Edward. Here is the

**32.**

Cambridge—King's  
Chapel—Interior.

interior of that church. You see how delicately the great span of the vault is built. This church was erected at the close of the Middle Ages, when men no longer put up fortresses for houses. Therefore they had learned to build lightly, and to plan arches and windows with daring skill.

**33.**

Cambridge—  
Clare Bridge.

Next is a scene in the gardens of the Cambridge colleges, with a bridge spanning the little River Cam.

We will return for a moment to Oxford and see something of the working of the Universities. Here is a

**34.**

**Oxford—  
Commemoration  
Procession, with  
Prince of Wales.**

solemn procession of the dignitaries of the University of Oxford. This is the President of the University, called the Vice-Chancellor, and beside him, as a member of the University, is the Prince of Wales, the son of the King. In front of them are two Bedels carrying the maces of state. Next we have the interior of one of the many libraries of the University.

**35.**

**Oxford—Merton  
College Library.**

It is the library of Merton College. The first duty of the University is to treasure and increase knowledge. The second is to impart that knowledge, so that it may be used for the good of mankind. But there is also a third, which, for an imperial nation, is very important. How comes it that young Englishmen, at home and in all lands of the earth, have learned to work together? In part, no doubt, it is because the schools have taught them not to think too highly each of himself. In part, also, it is because they have learnt from books, and are intelligent. But in part it is due to the games which they play at school and at the University. These games not only develop the body and give decision to the character, but they also teach each man to sacrifice himself for the common cause. If eight men row a boat in a race, no one can win victory for himself alone, but submitting his will, must strive that his boat may win against the boat which is chasing it.

Let us look for a moment at two or three scenes in these contests at Oxford, where men learn to work together, to keep their tempers, to bear defeat, and to try again. The subject is one of great interest

**36.**

**Oxford Boats—  
The Start.**

to us here in India, for our young men now play the same games as the English. Here is the start for the race. The boats are arranged in procession at equal distances. All start together at the firing of a pistol. Each tries to overtake and touch the boat in front of it. A boat which succeeds



in the effort starts the next day in the place ahead of the boat which it has overtaken. Thus at the end of many days a boat may work its way up to the head of the procession. But a man who rowed in that boat would not say that he won the race—he would only claim to have rowed along with other good men in the victorious boat.

**37.**

The same—  
The Race.

Thus all men will know that he has not only learnt to strive hard, but also to obey.

**38.**

The same—  
A "Bump."

Here is the race in progress, and here is a "bump"; the second boat has caught the first, and the man who steers the first boat is good-temperedly

**39.**

The same—  
After the Race.

acknowledging defeat by holding up his arm. Here lastly are the boats resting at the close of the race.

You must not think, however, that these games are confined to the Public Schools and the Universities. The

**40.**

A Football Match—  
England v.  
Scotland.

millions of people who never go to either play the same games and learn the same

lessons from them. Here you will recognise a football match. It is being played between England and Scotland, each country having chosen the best team available from among its countrymen. In this game you can see at once that a man would be unpopular who played selfishly for his own distinction and not for the victory of his team.

Football is in England a winter game, for it requires considerable activity. Cricket is more especially the national game, and it is a game which, as you know, the English carry with them into every corner of the globe, including the tropics. The great Colony of Australia is not everywhere tropical, but as a whole it is much warmer than the home country. Cricket is played there with much zest. Now, because Australia is in the south and Britain in the north, their seasons are reversed. Therefore,

**41.**

A Cricket Match—  
England v.  
Australia.

during the Australian winter a cricket eleven is often sent to England, where it arrives during the northern summer.

This is a cricket match, played before many spectators between England and Australia.

There are many other athletic contests in which strength and skill are matched. Here, for instance,

**42.**  
**Oxford and Cambridge Athletics**  
**—The Hurdles.**

is a race between representatives of the Universities of Oxford and Cambridge. Even in this contest, where one man only can win, the English do not say simply that he won the race, but they say that he won it for Oxford or Cambridge, as the case may be. Part of the glory is not his, it belongs to the University which trained him. Here is the finish of another race.

Lastly, we must not forget that half the nation consists of women. The English like their women to play games, and to learn lessons of courage and self-control which shall make them brave and helpful wives in foreign countries or on the borders of the Empire. These ladies are playing the game of hockey. Probably, they are students at one of the Universities, for it is felt that women require intelligence no less than men, if they are to be the wise mothers of a race of rulers.

**44.**  
**Ladies Playing**  
**Hockey,**



## LECTURE V.

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### COUNTRY LIFE AND THE SMALLER TOWNS.

IN the last Lecture we saw how the history of England, and the monuments which have come from it, surround the schools and the universities, and influence the upbringing of the men whom we know here in India as officers of the Army and of the Navy, as Civil Servants, and as merchants. Let us now, however, describe the early surroundings of those whom we know chiefly as the rank and file of the Army and as the sailors of the Navy.

Let us consider the homes of the people outside the Metropolis—the small towns scattered over the whole land, and the hundreds of little villages, the farms, and the cottages in the green countrysides and by the shores of the sea.

Here is the little town of Chipping Campden, in the West of England, set in a valley amid low hills and shaded by green trees, with its church tower rising in the centre. Do you see the sloping roofs of the houses which speak of a rainy climate, and the chimneys rising from their ridges, telling of the cold winters and of blazing fires round which in the long evenings the families gather?

This is a street in the same little town of Chipping Campden. Is it not peaceful and silent? How different the lives of the people brought up here from those who live in the sound of the unending traffic of London!

Here is another street in a country town, with shops where food and clothing are sold. There is an inn, too, which bears the sign of a Cock. The use of

**1.**

**View of Chipping  
Campden.**

**2.**

**Street in Chipping  
Campden.**

**3.**

**A Business  
Street.**

signs instead of names to distinguish houses is an old custom which has survived from the times when men could not read. See the school children gathered in the street watching the photographer who is taking the picture.

**4.**  
**A Residential  
Street.**

Next we go into a residential street, where are the houses of the doctors and the lawyers of the little town. Some of the shopkeepers also dwell here, for when they can afford it they like to withdraw in the evening from their shops. These people are known in England as the middle classes, for they are neither very rich nor very poor. From among their children have come many who have helped to make England what she is.

**5.**  
**Town Church and  
Town Hall.**

In the middle of the town there is the Church and also the Town Hall where meetings of the inhabitants are from time to time held for the management of local affairs. This slide, for instance, is taken in the little town of Cirencester. In front is the Town Hall, and in rear of it the Church with its tower.

These small towns could not exist if it were not for the country around them. On six days of the week they are silent and sleepy, but on the seventh they wake up and do much business. This day, known as Market Day, brings

**6.**  
**A Market.**

the farmers and their wives from all the country round to sell their produce and to buy in the shops their requirements for the week. Two or three times a year the market is specially a large one, and is known as a Fair. Here is a Fair in the little town of Burford. As you look down the street you can see the green country without. But the street is full of people, and there are stalls set up in it because there is no room for all the purchasers in the shops. Therefore it is, that these small towns are known as Market Towns.

**7.**  
**Yarmouth.**

Some of the towns round the coast, however, are differently employed. They

depend not so much upon weekly markets as upon their fisheries. Here is a scene at Yarmouth, with a number of old fishermen waiting with their baskets on the quay for the return of the boats.

- 8.** In the next slide we have the fishing fleet of Newlyn, lying sheltered in its harbour. **Newlyn Harbour.** And then we have a view of the boats on their return deeply laden with their catch.
- 9.** Since Britain consists of islands and has **Landing Fish.** shores on all sides, the fisheries have much importance.

But after all, if we would find the old life of England in which have been reared the generations of men who have spread over the whole world making the Empire and its commerce, we must go not only outside London, but outside even the market and fishing towns into the rural country.

- 10.** Here is a road running past a farmhouse and cottages, with a flock of geese in the foreground which are being reared for food in the winter. **A Country Road, Saintbury.**
- 11.** And here we enter a village, with its **A Village Street.** church visible up the street. A village differs from a town in having no weekly market. It has fewer shops, and is generally smaller. It is the place where the labourers live who work on the surrounding farms. In its centre three buildings generally stand near together. There is the church, not infrequently several centuries old, and round the church is the churchyard with the graves of twenty generations of the past villagers.
- 12.** Then there is the school, and thirdly, **Village Church and School.** there is the house of the clergyman. These are the little institutions found in each of the several thousand villages which are scattered at intervals of a mile or two over the whole of the British Isles. Some of them contain two or three hundred inhabitants, and some of them a thousand or twelve hundred.

Here is another village church, with a pointed spire instead of a blunt tower. It **13.** **Stoke Poges Church.** is clothed, as you see, with creepers, and around are the tombstones in the graveyard. There are generally bells in the towers and spires of these country churches. On a bright Sunday morning, when labour has ceased and the people take their weekly rest, these bells ring merrily through all the green country summoning the people, rich and poor, to assemble in the church for the worship of God.

Let us now look at some of the houses which stand not even in villages, but quite alone, or in groups of two or three, amid the fields. Beside this road we have a short row of cottages clothed with creepers, like the church that we saw just now, each with its little garden in front. Do you see the labourer's wife standing at her door with a child on her arm and a dog at her feet? It is from thousands upon thousands of such little homes as these, that have come the soldiers and sailors who have fought for England, and the workmen who have worked in the factories and have made England the great industrial and commercial country which we know.

Next we have a little inn by the roadside with a cart stopped beside it. The dog is waiting for his master, the carter, who has gone within to talk and rest and drink. **15.** **A Country Inn.**

Such is the quiet life of the humbler people in the country parts of England. But here and there through all the land there rises also the country home of a rich family. Of all the features of England, perhaps the most beautiful and the most indicative of peace and strength and wealth, are these country houses of the upper classes. We have one here surrounded by perfect trees and by spreading lawns of thick short green grass. **16.** **Mapledurham House.**

**17.** Many of these houses are old, and have been little changed, though well cared for, during several generations. This, for instance, is a kitchen in one of them dating from 250 years ago. Do you note the great beam of oak which supports the ceiling? Oak is an English tree which, like teak in India, gives a timber as strong as iron.

Interior at  
Long Marston,  
Charles I. kitchen.

**18.** Here is another and yet grander house, surrounded by one of those noble parks of which you heard in the last lecture.

Knole House.

You may imagine with what pleasure the leading men of England escape from their work in London, either in Parliament or in the Law Courts or in the City, to these quiet, proud homes in the country, where they may give themselves to sport both in winter and in summer—for the climate of England is rarely either too hot or too cold for activity throughout the day. Here, for instance, is a

winter scene in a country park, with a pack of dogs, or, as they are called, hounds, in the foreground, for the hunting of the fox. The men on horseback are ready to follow the hounds across the country, leaping the hedgerows of which you heard in the third Lecture. With them you may notice two or three ladies on horseback, who also will follow the hounds and leap the hedges. That it is winter time you may tell from the leafless branches of most of the trees.

**19.**  
Hunt Scene,  
Streatley, Berks.

**20.** On the other hand, we have here a summer scene in a country park with a cricket match in progress.

Nuneham Park.

Now I think you can understand something of the country life of England. The village generally consists of the Squire, the Vicar, the Schoolmaster, the Farmers, and the Labourers. The Squire owns most of the land. He was educated at a great school. His sons become officers in the Army and in the Navy. He is the unpaid magistrate of the district, and lives in the great house in the

park. Beside him, and living in a smaller home, is the Vicar, who ministers on Sundays in the church and visits the people in their homes to help them in illness or trouble. In addition there are often Ministers of the Free Churches, for religion is a matter for each man's conscience, notwithstanding the existence of a State Church. Beside the Vicar and the Ministers is the Schoolmaster, to whom by law the children must be sent to learn to read and write. Then there come the farmers, who rent pieces of land from the Squire, and farm them with the help of the labourers. The farmers live in farmhouses surrounded by cattle sheds and corn barns, and the labourers occupy cottages such as we have seen.

All these dwellers in the country—squires, vicars, schoolmasters, farmers, and labourers, and also the tradesmen of the market towns, depend for their livelihood on the crops of the field. In one way or another they all receive a share of the harvests. Let us therefore spend a few moments in considering the operations of British agriculture. They are very different from those of a tropical country, and it is impossible to understand the writings of British authors unless you know something of the aspects of British agriculture. The centre of the farm is

## 21.

**A Farmhouse.** the farmhouse, such as we have here, with its outhouses for the farm implements, and for the young animals which require protection against the weather. In the centre of the picture you see the poultry, which are fed by the farmer's wife and daughters, while the farmer and his sons are away in the fields. Close by the house a heap of firewood is laid ready for the winter, and there is also the farmer's gig, in which he drives to sell his corn at the weekly market in the nearest town.

A great change has taken place of late in the methods of farming, for the steam engine has been applied to agriculture as well as to the industries. Let us look for a moment at the old style of farming which is now rapidly going out. Here, in a field surrounded by a hedge, are three men



**22.**

**Hay Cutting:**  
old style.

mowing grass with scythes. The grass will be left to dry in the sun ; it will turn brown, and will then be heaped into a hay stack for the winter food of the farm horses.

**23.**

**Thrashing:**  
old style.

Next we see the old method of thrashing corn. The man in the picture holds a flail, or rod jointed in the centre, with which he beats the corn, and so separates the grain from the straw.

And here we have an old rustic digging the ground with a spade. Probably he is a man who can

**24.**

**Old Man Digging.**

neither write nor read ; for when he was a boy the children of country villages were not obliged to go to school.

Here is another such old rustic, a shepherd, who has spent his life in tending sheep. Probably

**25.**

**Old Shepherd.**

he never went to London, or, indeed, to any of the large towns which have now been brought by railways to within an hour or two of his home. But quite likely he often has letters from a son who is a sailor in the Fleet in the China Seas, from another son who is a soldier in India, and from a daughter who is married to a farmer in Australia. And here is his wife, seated in a corner of the village church.

**26.**

**Old Woman.**

By far the most abundant crop in England is green grass, and the English farmer therefore keeps many animals to feed upon it. Here we have a mare and

**27.**

**Mare and Foal.**

foal. The farm horses of England are much larger and thicker built than the small horses of most parts of the world. They are more powerful, but they are slower. Some of the English cart horses are nearly as large as an average elephant.

**28.**

**Shire Horse.**

Until modern times, when the steam engine was introduced, all the work of the farm was done by men and horses. Here is another grand horse,

**29.**

**Landseer's  
"Blacksmith's  
Shop."**

and here a picture painted by a great English artist, Landseer. It is owned by the English nation and hung in the National Gallery, which stands in Trafalgar Square. The picture is in the midst of London, but, as you see, it represents a country scene, the shop of a shoeing smith, who is putting an iron shoe on to the hoof of a horse in order that it may not be injured by the paved roads. Beside the horse you see two other of the animals that are common in every English countryside, a donkey, which is the poor man's horse, and a dog. Among the northern nations, as you know, dogs are cared for and treated as companions.

Here we have one of the chief operations of British farming in which horses and men work

**30.**

**Ploughing.**

together. They are turning over the ground with the plough to prepare it for the seed. Ploughing is usually done in the autumn, so that the land may lie fallow, that is to say at rest, for a time before the crops begin to grow in the spring.

With this coloured slide we come to harvest time. The

**31.**

**Wheat in Sheaf.**

grain has turned under the summer sun to a beautiful golden brown, and has been cut and set in these stooks, where it is drying in the hot August weather. Presently it will be taken away in wagons, drawn by horses, and stacked. Do you see on the ground

**32.**

**Carrying Corn.**

the straight lines of stubble due to the fact that the seed from which the corn grew was cast into the straight furrows made by the plough? In this slide the last sheaves of the harvest are being gathered in. There will be much rejoicing in the village to-night because the harvest has been safely got, and rain storms have caused it no harm during the critical days after it had been cut, when it stood drying in the sun.

The first farm machinery introduced in modern times was worked by horses not by steam engines. For

**33.**  
**Reaping Machine.** example, in this slide we have a horse-drawn reaping machine employed to cut down corn, thus saving the hand-work of many men.

**34.**  
**Thrashing Machine.** Here is a thrashing machine driven by a steam engine. The corn is placed on the top of the machine where stand the two men; it is caught into the running parts of the machine which are driven by the engine to the right hand; it is beaten in the machine so that the grain falls from the straw into the bags which you see, while the straw is lifted by the elevator on to the stack to the left hand, there to remain until required for the bedding of horses.

Besides tilling the ground for the growth of corn, the farmers of Britain keep many millions of cattle and sheep which feed upon grass. Here is an ordinary country scene with cows, which are kept for the sake of their milk. One of the chief foods in these northern countries is the milk of cows, and the butter and cheese prepared from milk. These cows live upon the grass, which is kept green by the moist climate. Here we have

**35.**  
**Cows.** cattle lying down chewing the cud.

**36.**  
**Cattle chewing Cud.** Next is a scene on a market day in a small country town. It is a fair to which the farmers have brought in their cattle for sale.

**37.**  
**Cattle Market, Faringdon.** The most numerous animals on British farms are the sheep. This is a fortunate fact, for wool is the most suitable material from which to manufacture the warm clothing needed during the northern winter. Here is

**38.**  
**Sheep.** a flock of sheep grazing. And here is another flock with the shepherd who tends them, and his dog. Sheep-dogs are usually of the kind known as Collies.

**39.**  
**Sheep with Shepherd and Dog.**

They are very remarkable creatures. A well-trained Collie obeys the shepherd perfectly, and can bring a large flock

**40.**

**Sheep Dog.**

of sheep to him or guide it in any direction that he orders. Here is a coloured photograph of a Collie dog. And lastly

**41.**

**Sheep Market :  
Chipping Campden.**

we have a sheep market, similar to the cattle market which we visited a moment ago.

These are the principal rural occupations of Britain, the growing of corn and the tending of cattle and sheep, but there are others, although on a smaller scale.

**42.**

**Hop Garden.**

Here, for instance, we have a hop garden, where the creepers known as hops are grown upon poles, and supply a little fruit which, when dried, is used for

the purpose of giving flavour to beer. Hops are picked in the hot weather, and a great number of people are required for the purpose. These people are, for the most part, got from the great city of London, for the part of England in which most hops grow is close to London. Once a year the very poorest of the poor people of London are carried out by train, and they camp for two or three weeks in tents in the hop country.

**43.**

**Apple Tree in  
Bloom.**

This is an apple tree in blossom. Later in the year it will bear a fruit which is used for the purpose of making a drink called cider. There are whole orchards of such apple trees, presenting a very beautiful sight in the spring-time when they are

**44.**

**Apple Blossom.**

gay with blossom. Here is a colour-photograph of apple blossom ; you may easily imagine that when these flowers deck the trees the whole landscape is brilliant, not so much with green, as with pink and white—indeed, one of the great differences between England and the tropics is that in addition to green there is so much brilliant colour in the foliage. Not only have you these orchards of white and red, but the grassy fields are at times all golden with flowers.

that are called buttercups and daisies, and, as we shall see presently, the trees in the autumn turn from green to brilliant shades of brown.

**45.**

**Apples.**

Here is a basket of apple fruit, each with a rosy cheek on its green skin. In Britain other fruits take the place of the mango and guava, which are unknown in the north.

**46.**

**Strawberries.**

Fruit is grown in large quantity for the markets of the great town populations. Here in this slide is one of the finest of the northern fruits, the strawberry, which you probably know. See how it is coloured, like so many other things northern. And here is yet another crop of England.

**47.**

**Roses.**

The vast cities with their millions of people—many of them well-to-do—demand in their houses the flowers of the country. Therefore there are parts of England where not merely corn and cattle, and not merely fruit, but also flowers are grown for the supply of the towns. This is the best known of the flowers of England, the rose, which grows also in other parts of the world, but is pre-eminently the national emblem of England, and praised as such in English poetry.

Let us turn for a moment finally to a side of English life which is different from all that we know here in the tropics. There are seasons in Britain, not rainy seasons and dry seasons, but seasons of heat and of cold. In the winter the vegetation stops growing, and there is little food in the fields for the animals. Then all the life of the land, animal and human, must be maintained by foresight, by the storage of the fruits of summer, or by the import of supplies from other countries. The cattle are kept alive by means of hay, that is to say, of grass cut in the summer, dried in

**48.**

**Hay-stack.**

the sun, heaped into hay-stacks, and there preserved until required in the winter. This is a hay-stack laid by for the winter supply of the animals.

When the hay and the corn have been harvested and the apples have been gathered and turned to cider, and the roses have bloomed, and the strawberries have been eaten or boiled to jam, then the summer wanes, and a change sets in. Day by day, as September and October pass, the green leaves of the trees gradually turn to all manner of

**49.**

**Beech—Autumn  
Tints.**

brilliant hues of red and brown, and presently, as the rains and the winds increase, they fall and litter all the ground as we see them here. At last, in November, the trees become naked, and show the tracery of their branches against the sky.

There are few more splendid natural scenes than those of the fall of the northern year. Let us

**50.**

**Park—Autumn  
Tints.**

look at one or two more of them photographed in colour. This is an English park in the autumn, and this a wood by a river bank.

**51.**

**River Scene with  
Autumnal  
Beeches.**

Many English houses are covered with creepers which are green in the summer and then turn to red—to blood-red at times—before the leaves finally drop and leave the house naked.

**52.**

**Virginia Creeper.**

This is the Virginia Creeper, which did not originally grow in Britain, but was brought from America. And here is a church clothed with red Virginia Creeper. Green ivy is a creeper native to Britain.

**53.**

**Hughenden  
Church—Autumn  
creepers.**

It clothes with green many old buildings throughout the winter, because its leaves are like leather, and thick, and can withstand the cold.

This is a December landscape. The trees have shed their leaves, and their naked boughs are clear against the sky. See the bleak appearance of the land, so that you may look over miles and miles of open country, though it is studded with many trees. To the eye of

**54.**

**Leafless Elm  
Trees.**

one accustomed to the tropical forest, England in the winter time is a naked and strange land.

There are times when the cold is such that the rain is frozen and falls in hard stones, known as hail, and there are other times when the clouds themselves freeze, and then there fall white snow-flakes like little feathers, which accumulate on the ground, covering it with a white carpet which melts into water and disappears when the weather grows warm again. Here is a country cottage half buried in

**55.**

**Cottage, Winter Scene.**

snow, and the snow is on the road and on the branches of the trees. And here is a wood-side, hung not with snow, but with hoar-frost. You know how dew stands on the leaves in the early morning.

**56.**

**Winter Scene in Wood.**

In Britain, in the winter time, the dew clings to the branches not as liquid water, but as a white feathery substance

like snow, and yet it is not snow, for it has not fallen from the clouds in flakes, but has been formed from the air around, and clings by little stalks to all the branches, surrounding them and clothing them. Here is

**57.**

**Frozen Lake side with hoar-frost.**

yet another scene of hoar-frost. The surface of the pool is frozen over, and has a covering of hard ice. All the ground is hard like iron ; men cannot dig with

spades, and even horses cannot draw the plough through the ground. The cattle are gathered into the sheds of the farms, where they are fed upon the hay which was saved for them in the summer. The nights are very long and the days are short—not like the tropical day and night, each

approximately twelve hours in length.

**58.**

**Hockey on ice.**

Even poor men must now be idle, and many spend time in active sports. Here, for instance, the game of hockey is being

played on the ice, which is strong enough to bear people upon it safely. Here is one of the roots of the energy of the British race ; it is bred in a climate which is warm enough for men to work in through most of the year but with every now and then a spell of frost, which appears to stimulate human activity. On the other hand

the heat of the summer is rarely such that men must rest in the middle of the day.

**59.** These men are skating on the ice which is very smooth. That they may glide the more easily they put skates on their feet

**Skating.**

—sharp steel edges which slip so easily that it requires some skill to stand upon them. It is an exhilarating sight to see men and women moving with the speed of railway trains, the blood aglow in their cheeks and their eyes flashing with pleasure.

**60.** In Scotland men play the game of curling upon ice. The weights glide over the surface instead of rolling like balls.

**Curling.**

**61.**  
**Thames frozen  
over.**

Lastly, we have a very curious scene. Once in every few years there comes a colder winter than usual, and then even the running water of considerable rivers will freeze. Here is the Thames frozen completely over and bearing many people.





## LECTURE VI.

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**THE GREAT TOWNS, THEIR INDUSTRIES AND  
COMMERCE.**

FIVE hundred, six hundred, and seven hundred years ago Britain was what Australia is now. It supplied nearly the whole of Europe with wool. As we have seen in the last lecture, the agriculture and the pasture of Britain are still important, but now, of course, Britain's fame is chiefly as a mining, an industrial, and a commercial country. Even in antiquity there was one part of the land which was important on account of its mines. The oldest mines of Britain are tin mines, and they are still worked, although the tin of the world is now mainly got in the Malay Peninsula, and the neighbouring islands. Singapore is now the great tin port of the world, but at no very distant time tin was obtained almost exclusively in Britain—in that part of it which forms the rocky peninsula of Cornwall stretching out into the western seas. The Cornish miners, though they no longer find much employment in Cornwall, are the most skilled miners of gold in South Africa. So we find within the British Empire three districts which are very closely related to one another by the bond of tin: Cornwall in England, the Malay Peninsula, and the gold mines of South Africa. Here is a group of

**1.****Group of Tin  
Miners.****2.****Tin Mine Shaft.**

Cornish miners, men from whose race have come not a few leaders in other parts of the Empire. These are two of them descending a shaft into the depths of the earth to work for tin. One of the deepest mines in the world is in Cornwall. And here is a passage in the depths of the earth

**3.**

**Four Hundred  
Fathom Level,  
Dolcoath.**

with rails laid for trolleys to run along, carrying the ore which is to be raised to the surface and there treated, so that from rock is obtained shining metallic tin. In this slide we see miners at work on the face of the rock, drilling holes in the hard stone into which explosives are inserted with the object of shattering the stone and splitting the ore into fragments that can be handled. Observe with how little clothing they work, for at these depths the temperature is high. Our final scene in

a tin mine is comparatively near to the surface.

But, although some tin is still got, tin mines are now relatively unimportant in the life of the country. There has developed in Britain in the last century and a-half a vast system of industries based, not merely on the use of

**6.**

**Map showing  
Coalfields of  
United Kingdom.**

human muscles, but on power derived from the burning of coal. Here is a map showing, in black, the coalfields of Britain. They lie chiefly in South Wales, in the Midlands, in the North of England, and in Central Scotland. Those of Ireland produce but little. Compare this map with the next, which shows, in red, all the districts of denser population.

**7.**

**Map showing  
distribution of  
Population about  
the Coalfields.**

It is obvious that of all the larger areas coloured red, only the London district is devoid of coal, and coal can easily be brought to London by sea. These facts tell us at once that in their modern growth the activities of the British population are based chiefly upon coal. Three-quarters of all the people in Britain live within the areas coloured pink, which measure not more than about one-twentieth of the British Isles. In the main, therefore, Britain is a country of town and factory populations, and in lesser degree only of agricultural and fishing people. A hundred years ago the population of the whole British Islands was not more than 16 millions,

and it was mainly agricultural. To-day it numbers 43 millions, and is mainly industrial.

Coal is won from the depths of the earth, where it is laid in great sheets, which are known as coal seams, and these are underlaid and overlaid by the solid

**8.** rock. Immediately under each coal seam

**A seam at Glasgow dissected to show the origin of Coal.** there is usually a layer of clay, and if you examine that clay you will often find in it, here and there, threads of coal penetrating downward from the seam above. These are obviously the blackened roots of trees. Sometimes, in the coal itself, you will find complete stumps of trees preserved. For, in fact, the coal seams are nothing more than the buried, rotten forests of vastly ancient times. You know that in our great tropical forests when the wood rots it turns brown, and even black. Wherever wood grows old in the use of men it darkens. So we see that though the climate of Britain is cold, and though vegetation does not grow with the same colossal power as when driven by tropical rain and heat, yet buried deep in the rocks of Britain there is compensation in the shape of ancient timber called coal. The sunshine and rain of far-off times are thus the chief bases of British prosperity, just as the sunshine and rain of to-day are the chief bases of our prosperity in the tropics.

Most of the industries of Britain are in the North or North Midlands. In these parts, you will remember, we are mainly away from the better agricultural districts. The smiling fertile cornfields and rich lowland meadows are replaced by bleak uplands with stone walls and few trees.

Here is a row of cottages where dwell  
**9.** colliers of the north of England. What a  
**Colliers' houses.** contrast with the homes of the agricultural labourers which we saw in the last lecture! And yet the colliers who work in the coal mines are much better paid than the labourers on the farms

**10.**  
**View of Colliery above ground.** This is a coal mine, or, as it is called, a colliery. Here is the chimney of the pumping station which lifts water from the mine, lest it should be flooded by underground springs. The same engine is used to raise the coal to the surface.

**11.**  
**The Pit-mouth.** Next we come into the yard of the colliery, to the pit-mouth itself. These colliers have done their spell of work, and have just come to the surface again, all blackened and grimy with coal dust. Each of them holds a small lamp of a special kind. It is so made that the flame cannot pass out, even though the lamp be upset. The object is to prevent explosions of the coal gas which is often disengaged in the mine. Occasionally the colliers are careless and open the lamps, and as a consequence we sometimes hear of a terrible explosion with great loss of life.

**12.**  
**In the Cage.** This is the cage ascending to the surface, bringing miners begrimed with coal dust, and each carrying his lamp and his can of liquid needed for drink in the depths of the earth, because the heat is there great, and there is much perspiration from labour. Next we see the actual working of the mine.

**13.**  
**At work on a four-foot Seam.** The roof is supported by timbers, which are now brought to Britain from foreign countries in great quantity, because Britain is so populous that men cannot afford the space for the forests in which to grow the wood needed for the mines. Note the vertical thickness of the coal. It is to this that the towering forest of former times has been compressed in its ruin. Here with his lamp hung to one of the posts is the miner, stripped to his work, using his pickaxe to detach the lumps of coal. And here, finally, with the seam

**14.**  
**Levelling in a Coal Mine.** of coal more plainly visible than in the darker corner we have just left, are miners occupied in levelling, and so guiding the course of the tunnel. The

coal is taken in trucks from the face where it is worked to the foot of the shaft, and thence raised to the surface.

We must now consider the uses to which the coal of England is put. We have already seen it exported to drive British ships in foreign seas. We have also noted the chimneys to the houses in Britain, which are warmed by coal fires. But the chief use is in the industries which give employment to so many millions of the British people.

Now, the industries are chiefly textile, or of iron and steel. Men require clothing, and this is mostly woven or textile; and they require tools with which to work, and these are chiefly of iron and steel. Here is the simplest form of textile industry—the manufacture of ropes and mats. All the textiles are made of fibres, which are mostly got either from the stalks and other fibrous parts of plants, or from the wool and hair of animals. In olden times men clothed themselves with skins, and still do in some barbarous lands; but in these days nearly all the world wears clothes that are woven, that is to say, that are made of fibres laid across one another and interlaced so that they form a sheet of material. The roughest fibres are fit for the making of rope. By the weaving of rope, mats of one sort or another are

manufactured. Here we have a factory for rope and mat making. The fibres are being laid straight, and side by side, in the machinery. We notice that the machines are driven by endless straps, worked from a long shaft running through the top of the shed. The shaft is rotated by the action of a steam engine, which is, of course, driven by the burning of coal. Now, since the machinery was made with the help of coal-heat, it follows that coal has been utilised twice over in this process—for the making and also for the driving of the machinery. One other thing we notice, the number of women employed to control the machinery. Women used formerly to spin and weave cloth in their own homes. With the introduction of machinery and steam-power they now have to perform the same work in factories.

There are two essential processes in all textile manufac-

ture—spinning and weaving. In its simplest form spinning is the making of rope, and weaving is the interlacing of rope in two directions for the purpose of making a mat. When the rope is a delicate thread we call it yarn,

**16.**

Linen Spinning Mill.

and when the mat is a fine cotton or linen fabric we call it cloth. Here we have a linen mill seen from outside, and here a loom for the weaving of the spun flax. A power loom driven by steam can

**17.**

Dobbie Loom.

do the work of very many pairs of hands. See the spindles on which the yarn is wound, and the cloth coming from the loom. In a hand loom there would be

**18.**

Jacquard Loom.

but a single spindle. So that you can imagine the immense multiplication of power due to machinery. Here is another kind of loom. Note, again, the endless straps and the overhead shafting connected with the engine.

**19.**

A Bradford Mill.

Let us glance for just a moment at this larger mill, at this wool-spinning room, and at this cotton-spinning room. They

**20.**

Wool Spinning.

require no further description, for they merely differ in scale from those we have

**21.**

Cotton Spinning.

already studied.

And now we will turn from the making of textiles, which employs several millions of the inhabitants of Britain, and gives rise to perhaps the largest single trade of Britain, the cotton trade. Let us turn from that to consider the other great group of the industries, those which are based essentially on the melting of metals by the heat got from coal.

**22.**

Glass Blowing.

One of the simplest and one of the oldest forms of this is the making and blowing of glass. It is true that glass is not a metal, but for industrial purposes it has many properties somewhat similar to those of metals. It can be melted, for instance, and worked while hot. Here we have a man

**23.**

Glass Blowing.

engaged in blowing glass which has been melted by the use of coal. And here,

when he has blown the bottle, he is shaping it with tools.

A somewhat similar industry, although not involving the melting of the material in the first

**24.** instance, is the making of pottery.

**Pottery making.** Pottery was formerly made in the homes of the people, and the potter's wheel was worked by the foot, as it still is in the East. But nowadays the wheels upon which the pots are shaped are driven by steam. Here we have women at work upon pottery. And in the

**25.** next slide are men engaged upon a similar process, but their tools are driven

**Pottery making.** by the foot. The pottery that is being made in this instance is of the costly kind, which is produced in small quantity, and demands artistic labour. It requires so little power that it is not worth while to drive the machinery by steam. In large measure steam has not replaced human skill for the very finest work.

But the most important by far of the industries which are based on the use of coal for the melting of the raw material are those which deal with iron and steel.

Here we have a group of blast furnaces, where the iron ore is mixed with coal and burnt. The

**26.** molten iron flows out from the bottom

**Blast Furnace.** of the furnace and cools into long blocks known as "pigs." It would be impossible to show all the processes through which the pig iron is passed in the manufacture of the many wares made of iron and steel. Let us glance at a very few. Here we have a man inserting a white-hot, thick, short block of metal into a machine. He will lift it from that

**27.** plate with his pincers and will insert it

**Rolling Steel.** under the roller. The roller, crushing it, will reduce it in thickness and will greatly elongate it to this hot flexible rope. When cold, a steel rod will be the result.

Next we see a great sheet of steel coming out of the furnace, not melted but white hot. This is to be used

**28.** as an armour plate on a battleship. We see how that the men are clothed and masked for the purpose of standing the heat, and how that they are armed with tools appropriate for the handling of the hot metal.

**Making an  
Armour Plate.**

In this slide hot blocks of metal are being hammered under a steam hammer. Again we notice

**29.** that the man is clothed and masked in order that the heat may not injure him. The hammer is descending rapidly with repeated blows upon these two pieces of white hot metal, and, striking them as a blacksmith will strike two pieces of iron on his anvil, it forces them together and welds them into a single piece. Now we must remember that coal is here used no less than four times. It heats the metal to be forged, it raises the hammer, and beforehand it was used in the smelting of the metal from its ore, and also in the making of the hammer.

**Steam Hammer**

But the rolling of plates and bars of steel, and the hammering of blocks of hot metal together, are but the first and roughest processes in the highly complicated industries whereby from rocks of the earth are obtained those wonderful complicated tools of civilization which we call railways, and bridges, and locomotive engines, and mail steamers, and battleships, and guns, and—perhaps most delicate of all—the machine-tools used in factories for the making of machinery. Let us consider a few instances of these more advanced processes. Here we see one of the

**30.** finest exhibitions of power—the boring of a steel gun while cold. Next we see the building of a battleship, also made of steel.

**Boring a large Gun.**

**31.**  
**Building an  
Ironclad.**

**32.**  
**S.S. "Oceanic"  
in Dock**

Then follows the sight of the screws of a great ship. These screws are made of the most finely tempered metal, lest they should break under the constant strain to which they are exposed. Finally we have here the launching of a battleship—an occasion of rejoicing and holiday at the



**33.** close of a year's task. As she floats  
**The launching of** she displaces perhaps 15,000 tons of water.  
**an Ironclad.** The great ship is of steel from end to end.

It is the product of the work of thousands of people—the colliers who got the coal from the colliery ; the miners who got the iron ore from the mine ; the makers of iron who smelted the iron from the ore ; the makers of steel who converted the iron into steel ; the rollers of bars and plates, the builders of the ship and the builders of the engines. Presently there will have to be added also the builders of the guns. Then we must not forget the people who made the machinery wherewith these people worked, and also the people who built the houses, and made the clothes, and grew the food, which they needed for their living. Thus a whole society of people is required to construct the ships which defend the Empire of the King.

Let us turn for a moment to consider the large towns in which the British industries are carried on. We have here a phase of the national life very different from the quiet existence of the little market towns which we saw in the last Lecture. Outside London, there are some twenty very large towns in the British Isles. There are three of them—Glasgow, Liverpool-Birkenhead, and Manchester-Salford, each of which has a million people.

This is a crowd of workers, pouring  
**34.** out of a factory at the close of their work.  
**Men Leaving Works.** Do you note the tall chimneys of the factory in the background? There are probably a hundred other factories in the neighbourhood. You may imagine the organisation that is needed to supply the wants of these great populations. Food must be gathered from the country districts and from distant parts of the world, and must be brought in daily to the crowded areas where millions of men live and little or no food is grown. And all the wants of the people must be attended

to on a similar great scale. Here, for  
**35.** instance, is a hospital, in which the  
**A Hospital Interior.** workers who chance to be injured in the

pursuit of their daily duties are tended. Do you see the nurses moving about between the beds? This is a school where the children are taught.

**36.**

A School Interior.

Every child is compelled by law to receive instruction. And this is a park

**37.**

A Public Park.

such as have been provided for recreation in the great provincial towns—Manchester, Liverpool, Birmingham, Glasgow, and others. Here, finally, we have the Town

**38.**

The Municipal Buildings, Glasgow.

Hall in the centre of one of these towns, whence a million of people are governed, and where in these times even the generation

of electricity for the supply of the factories is organized. Note the monuments erected to commemorate the services of those citizens, who either locally in the town, or in the Government in London, or in the parts of the Empire beyond the seas, have deserved well of people and King.

One thing more remains to be considered. We have seen something of the metropolis, something of the rural districts, the small country towns, the fishing ports, and the great industrial towns. But, in these days, the whole land of Britain is knit closely into a single community by the facts that the greater part of its food and raw material for manufacture must be distributed from the seaports, that modern means of communication have so reduced space within the islands that almost every village has a telegraph office, and that the extreme ends of the island are not more than 24 hours apart by express train. Let us look at a few aspects of these most recent developments.

**39.**

Corn Mill, exterior.

Here is a large corn mill, and here the interior of such a mill. The grain is

**40.**

Corn Mill, interior.

lifted from the importing ship and carried on these straps, running on rollers, to the place where it is to be stored. And here

**41.**

Packing Biscuits at Reading.

is a scene of interest to all Britons who go to the remoter frontiers of the Empire. It represents the packing of biscuits in tin boxes for export.

The food having been imported is carried into all the land by railways. The British railways are, of course, relatively short, but run through dense populations, and are probably the most efficient in the world.

**42.**

**Locomotive Engine, Great Western Railway.**

Here is a recent express engine capable of hauling a passenger train without stopping for 300 miles. Next we see such an express running on a four-line track and picking up water for its boiler from troughs laid between the rails.

**43.**

**Four-line Track with London and North Western Express.**

Time is very valuable in Britain. Here, as an instance, is the interior of a travelling post office, which runs on express trains. The letters are sorted on the road, and the mail bags thrown out and caught up at fixed points while the train runs.

**44.**

**In a Travelling Post Office.**

Perhaps the grandest feat of engineering in connection with the British railways is the Forth Bridge. See how small the houses appear when compared with it.

**45.**

**The Forth Bridge.**

**46.**

**Electric Power Station, Chelsea.**

But another revolution in all the conditions of British life is now preparing. Electricity is being used to distribute power from great fixed engines, and locomotive steam engines have already been displaced on the shorter lines. Here is part of the interior of the largest power

**47.**

**Electric Train on Metropolitan District Railway.**

station in the world, where is generated the electricity for four railways which traverse London. This is the boiler house, with automatic stokers. And last we have an electric train. You note the absence of a locomotive.

Thus we see how the 43 million people of Britain co-operate in a single vast complex machine. But we must remember that it is not only the present generation which has made Britain such as we see it, but many millions in the past, the results of whose work we of to-day have inherited.

## LECTURE VII.

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### THE DEFENCES OF THE EMPIRE.

THOUGH we are so many miles away, I think you will agree that in the past six Lectures we have seen something of the two islands which are the centre of the British Empire. These islands are interesting to us because the great Empire of which we are a part has grown from them. Let us devote this last Lecture to the Empire as a whole. Let us learn how it is held together, and how it is defended, so that there may be peace and justice in all its parts.

In this map we see once more that the British Empire consists of a large number of separate lands scattered over the world. We have first of all the two

**1.** British Islands set in the sea off the coast of Europe. They are separated by water from the military powers of

Europe, and have no land frontier over which invasion may come. Then we have in North America the great Dominion of Canada, encompassed on the east and north and on most of the west by the ocean, with land frontiers only towards the United States. Next we have the Australasian Colonies, all of them islands, as in the case of the Mother Country. There are four considerable islands in the South Seas—Australia, Tasmania, and the North Island and the South Island of New Zealand. Crossing the Indian Ocean we come to South Africa, with water on three sides. Although South Africa appears to be neighboured by other States on the north, yet it is wholly different from India or Canada, or

one of the great powers of Europe, because the adjacent territories are only thinly peopled, mainly by savages. South Africa is, therefore, isolated almost as effectively as is Australia. Then we come to India with ocean to the south-east and to the south-west, with the bleak tableland of Tibet to the north-east, and with accessible neighbours only to the north-west. Even Egypt and the Soudan, which appear to have great lengths of land frontier, are in effect detached by the desert, and hardly less secure than if they were surrounded by water. Lastly, we have on either side of the Atlantic West Africa and the West India colonies. These are the larger lands which form the British Empire, or are protected by it. In addition, there are many islands—some of them wealthy and important out of all proportion to their size, because they are trade centres or are covered with tropical plantations.

But the mere enumeration of the lands of the British Empire gives little idea of what that Empire really is. All these lands, severed by ocean and mountain and desert, would be separate countries were they not tied together by some 9,000 steamers and many thousand miles of submarine

electric cable. Therefore, the steamers upon the ocean and the cables upon the bed of the ocean must be counted as important elements in the material fabric of the Empire. It is they, and they alone, which give it unity.

**2.**  
**The Cables of the Indian Ocean.**

Now it is clear that for practical purposes the British Empire has only two land frontiers—the one on the north-west of India, the other on the south of Canada. It is therefore obvious that an attack upon any other part of the Empire must be conducted over the water. Even if there were attack upon the land frontiers, the enemy would undoubtedly operate also upon the ocean for the purpose of breaking the communications between the different parts of the Empire. He would seek to destroy the steamers and cables, so that one part of the Empire might not send help to another part. The first interest, therefore, of every section

of the British Empire, is that there should be peace upon the ocean, so that the steamers may ply regularly and that the cables may not be disturbed. If the British Navy were defeated, the Empire could no longer exist.

Do you remember the map which was shown early in the first lecture, giving the lands of the world in black so that they might contrast with the blue sea? And do you remember that the object of that map was to prove that all the lands of the world, even the greatest continents, are surrounded by the ocean, and are in reality islands? The ocean, therefore, is a single vast sheet of water covering three-quarters of the globe. A squadron of ships can in a voyage of about a month go to any point on the coasts of the world. Clearly then one Navy will suffice for the sea defence of every land in the British Empire, for if the enemy's fleet is attacking one part, a British fleet can go to that part, sure that the opponent fleet is not in any other part of the world. But if the enemy divided his fleet then the British fleet can be divided to meet him. The battleships of Britain are moving fortresses, which can be carried over three-quarters of the world instead of being fixed at a single point as they would be if they were on land.

I need hardly remind you, however, that a ship can only keep the sea while it has coal and food. Therefore, although one Navy is enough—providing it be strong—for the defence of every part of the British Empire, yet it is essential that wherever a British fleet may go it should find at no great distance British ports ready from time to time to equip it afresh. It is in Britain's power in one short month to send a great fleet of battleships to any part of the ocean where they may be required. They would arrive ready for action, because at each stage of their journey there would be British harbours to replenish their stores and to make good defects. On the direct route to India, for instance, we have Gibraltar, Malta, and Aden. On the alternative route, round the Cape of Good Hope, are Sierra Leone, Ascension, St. Helena, Simonstown, and Mauritius.

Therefore, while the Navy defends all parts of the Empire, each part has also a duty to the Navy.

The most necessary lesson to learn in regard to the sea power of Britain is that even though no battle fleet should during long years visit our own waters, yet our commerce and our peace depend upon the Navy. Owing to the British sea power Hong Kong, for instance, now stands fourth among all the ports of the world in the tonnage of its shipping. It is solely because the battleships of the world, except those of our ally, Japan, are at present in western waters that the British battleships are concentrated there to watch them.

Do you realise the economy of the British Empire? One Navy defends one-fifth of all the lands on the globe. Were India and Canada and Australia and South Africa separate states, each must maintain a navy, and the navy of each would be useless unless it were strong enough to contend with the other great navies of the world. Even the resources of India would not suffice to maintain a great fleet without very heavy taxation. Indian security and prosperity are at present wholly in the keeping of the British Navy.

### 3.

**First-Class  
Battleship,  
H.M.S. "Dread-  
nought."**

Let us consider that Navy for a few moments as it exists at the present time. It consists in the first place of battleships, each bearing a few powerful guns. The ship is partly clad in steel armour to resist hostile shot. The guns can fire with accuracy to a distance of several miles. The crew numbers some 800 skilled men. The engines have the strength of 20,000 horses. The whole vast fortress, with her regiment of men, can be propelled over the ocean at the rate of 20 miles an hour. It is clear, however, that the strongest battleship afloat would run the risk of defeat if she were attacked simultaneously by several hostile battleships. Therefore, the British battleships move in squadrons of six or eight, and to ensure victory these squadrons are grouped in fleets, and all the

battle-fleets of the British Navy are now gathered in Atlantic and Mediterranean waters, because it happens that just now all other battle-fleets but that of our ally are collected in those waters. This is the reason why the British battleships are not distributed—here a ship and there a ship—over all the world, but are gathered together in one part. Should occasion require it, they can go together to any other part. Those, therefore, who ask that battleships should be sent, a few here and a few there, to defend every threatened port, do not know the first principle of success in war. If you divide your force, even a small fleet—if very efficient—might defeat you by fighting each of your divisions in turn. In war you must concentrate to win.

4. So much for the battleship. But here is a ship appearing as large and important as any battleship. It is a first-class armoured cruiser. Her engines are, if anything, even more powerful than those of a battleship. She carries more coal and can keep the sea for a longer time without returning to port, but her guns are not quite so powerful as those of a battleship, nor is her armour quite so thick. There are other cruisers, somewhat less powerful than armoured cruisers, which are said to be protected, because they carry less defence against shot, and there are still others known as scouts, whose name reveals their special purpose. Now what is the object of these cruisers? This is an important question, because the British Navy contains more cruisers of one kind and another than battleships, and yet victory in battle is determined by strength of battleships more than of cruisers. The first object of a cruiser is to obtain intelligence for the battleships. Although a battleship can move fast, yet she cannot move so fast as ships that have not to bear such vast weights. The cruisers find out for the battleships what is going on in seas around, and whether the enemy is near. Of course they must be prepared to fight the enemy's cruisers, and to prevent them from approaching to gain information



for their own admiral. In these days cruisers communicate with the battle-fleets by wireless telegraphy, and by acting together, so that a message is taken up and passed on by successive ships, an immense area of sea may be covered, and even the distant position of the enemy's fleet may be ascertained.

But the cruisers have also another function, which is to defend commerce. Here again you must not measure the protection given to our commerce by the frequency with which you see our cruisers. In time of war it would not as a rule be the duty of cruisers to accompany or, as a phrase is, to convoy our merchant ships from port to port. You will remember that we have 9,000 ocean-going steamers, and we should have to build an immense and costly fleet of cruisers, if we were going to protect them all by the method of convoy. Let us try to understand the action of cruisers by comparing them to policemen upon the land. In almost every community there are a certain number of thieves, who from time to time break into houses and steal, but we do not protect our houses by having a policeman always on guard in each. Our method is to detect the thieves and to arrest them. In other words, our aim is not so much to defend our houses from robbery, as to remove the thieves from society. Precisely in the same way our cruisers would not so much defend our merchantmen, as hunt down and destroy the cruisers of the enemy who broke the peace of the ocean. Our aim would be so to clear the water of hostile cruisers that our liners might steam with the same regularity and certainty in time of war as in time of peace.

Battles at sea are won by the use of battleships to fight and of cruisers to give information and to prevent the enemy from gaining information. But near the coast, and even on the high seas when the larger ships have been

## 5.

**First-class  
Destroyer.**

injured, there is scope for smaller vessels, which launch torpedoes against the enemy. Some of these vessels float on the surface of the sea, like the **H.M.S. "Derwent."** and are known as destroyers. They move

**6.**                   with great speed so as to avoid the enemy's  
**Submarine Boat** shot, and their best opportunity is by night  
**passing the** or in thick weather. Others dive below the  
**"Victory."** surface and are known as submarines.

They seek to avoid the enemy by passing out of his sight, and might thus deliver an attack by day.

Now these are the parts of a fleet. The battleships which do the serious fighting, the cruisers which cover the battleships, and the torpedo craft which are used to complete the destruction of an enemy's fleet or to defend narrow and difficult waters, where ships cannot move with speed and freedom.

We need not think, however, that a fleet must always fight. If it were strong enough, the enemy would not risk a battle, but would take refuge in his harbours. It would be the duty of a British fleet to watch these harbours closely in order to attack the enemy at once if he came out. Our commerce could then proceed peacefully, because the enemy would have no ships in position to attack it. So you see that a strong Navy makes for peace, whereas a weak Navy challenges to battle.

Before we leave this picture of a submarine let us note alongside the old sailing battleship, Nelson's "Victory." You see the three white stripes along her sides, each pierced by many portholes. In the time of Nelson there was a gun in each porthole, so that the old battleship sailed upon the wind and fought with many small guns.

Nowadays a fleet moves by steam and consumes much coal. The best coal for fighting purposes is that which gives little smoke, and thus does not reveal a fleet to the enemy or obscure tactical signalling. Nearly all the smokeless coal of the world is got from South Wales in the British Islands.

Here is a steam collier shipping such coal  
**7.**                   at the port of Cardiff. This vessel  
**Collier shipping** carries about 2,300 tons of coal, and can  
**Coal at Cardiff.** be loaded in two hours. Each of the four  
tips which you see is capable of shipping a 10-ton waggon

every minute, so that the ship receives 40 tons a minute. One of our great fleets, such as the Mediterranean Fleet consumes about a shipload of coal every day. Thus you realise of what significance would be coaling stations of the Indian Ocean should it ever again be necessary to send a battle-fleet into our waters.

Now let us go quickly through a few typical scenes on a man-of-war and let us learn something of the life of the sailors who navigate and fight her. This is the quarter-deck of

**8.**  
Quarter-deck of  
H.M.S. "Majestic"  
showing 12-inch  
guns.

**9.**  
Six-inch gun in  
action.

**10.**  
The same.

**11.**  
Gun in action  
(Marines.)

**12.**  
Hoisting projectiles.

His Majesty's Ship, "Majestic." The two guns which you see have a bore 12 inches in diameter. Here is a 6-inch quick firing gun with her crew in battle position. Do you see the men to the left who are hoisting the ammunition from the depths of the ship? Here is a nearer view of the same gun. And here yet another with the gun's crew, this time not of bluejackets, but of marines. Every large man-of-war carries a certain number of men trained to act as soldiers who are called marines. These help to fight her guns and are sent ashore should it be necessary to land a force to deal with some local difficulty. Here we have yet another scene on deck where seamen, or bluejackets as they are called, are hoisting ammunition from the magazine.

Men of-war are built of steel. They are moved by coal and steam, and their guns fire armour-piercing projectiles and shells filled with high explosives. But there is one other substance essential to a fleet, and that is brain. A gun, however powerful, is useless unless the gunner aims with accuracy. A ship, however speedy, is comparatively useless unless handled with skill. A fleet, however numerous, may be defeated unless controlled by a good admiral. Therefore the greatest importance is attached in the British Navy to the efficiency of the men and the officers. It takes several years to make a seaman, and a bluejacket serves

for no less than 12 years, but it takes longer to make an officer. He begins to learn as a boy, and he is always afterwards learning. He is taught by his seniors in the service. Therefore you will understand that no nation can build up an effective navy very quickly. For, in the first instance, it has no officers to teach those who come after. Even at the

**13.**

Officers of H.M.S.  
"Fawn" in  
oilskins.

end of several years it could only have a few officers of skill. So you will understand that it has taken several generations to train the great service to which the naval officers of Britain belong. Here are

**14.**

Lieutenant of  
H.M.S. "Fawn"  
in lammy suit.

four of them in their waterproofs on a wet or rough day. Here is another in thick clothing for a colder day. Here, to the left

**15.**

Cleaning arms,  
H.M.S. "Diadem."

of the picture, is a warrant officer superintending his men while they clean their rifles. And here, to give you an idea of the comradeship of the men who spend their

**16.**

Morning Prayer

lives together in the small space of a ship and in the presence of danger, is a scene on deck when the ship's crew are mustered for morning prayer. One

**17.**

Sub-Lieutenants at  
Field-Gun Drill.

last slide and we must turn from the navy to the army. Here are some sub-lieutenants at field-gun drill upon the land. It often happens that our ships must send men ashore to fight in our land wars, because, naturally, our men-of-war are very frequently first on the spot, and if the enemy does not threaten a sea-fight, the sailors are free to defend or to attack before the soldiers arrive. You may, perhaps, remember that in the South African war there was a naval brigade at the defence of Ladysmith.

If you have followed me thus far, I think that you will have little difficulty in understanding the part in the defence of the Empire which has to be played by our land forces. If you have fully realised the necessity for concentrating battle-ships into great fleets, and for using cruisers boldly to hunt down the commerce destroyers of the enemy, you will have

learnt that incidentally most of the shores of the Empire are at times laid open, perhaps not to invasion in force, but at least to raids by hostile cruisers and small military forces escorted by them. It would be very costly to tie adequate fleets to every threatened point. In nine cases out of ten the whole war would go by, and the enemy would never come into the neighbourhood of such a tied force. Moreover, defeat in the crucial battle would be risked in this attempt to give to every commercial centre the protection for which in panic it cried out.

The alternative is to free the fleet for its proper purpose of attacking the enemy and clearing him from the ocean, by providing such land forces in each locality as shall suffice to deal with any likely attack. More especially is it needful to protect the coaling and refitting stations of the fleet, in order that in each sea the ships may find the refreshment they require, and may not have to return to distant ports

while the enemy's cruisers are left un-  
**18.** watched. Here, for instance, is Cape  
**Cape Town.** Town, a quite likely refuge for our  
damaged ships in certain contingencies.

It might happen, though it is not very probable, that Cape Town should be seized by a hostile raiding force, whose aim was to injure the trade going round the Cape to Australia and New Zealand. Now it is clear that if a British cruiser squadron had to watch the Cape it could not hunt for the enemy's cruisers in the adjoining ocean. In time of war it might therefore be needful, under certain circumstances, to maintain in Cape Town and its neighbourhood such a land force as would suffice to deny the Cape harbours to the enemy. This is called the local defence of the Empire.

In various parts of British Territory  
**19.** we find local armies intended for the  
**New South Wales** purpose here described. In this slide,  
**Lancers.** for instance, we have a troop of New

**20.** South Wales Lancers, as typical of the  
**Royal Canadian** Australian Forces of the King. In the  
**Artillery.** next is a battery of Canadian Artillery

passing through a street in Ottawa when the winter snow is on the ground. Then we come to the great Indian Army. It is composed, as you know, of soldiers of many different races—of Englishmen and Scotchmen, who used formerly to fight with one another in the British Isles—and of such peoples as the Marathas and the Mohammedans, who used formerly to fight with one another in India. All are now combined for the defence of the Empire, so that

**21.**  
A Bengal Lancer.

**22.**  
Madras Lancers.

**23.**  
Bombay  
Artilleryman.

**24.**  
A Goorkha.

there may be peace and order from the Himalayas to the ocean. Here we have a Bengal Lancer, wearing a medal which he has won in the service of the Emperor; and here a group of Madras Lancers—as you see by their stripes non-commissioned officers. Then follows a Bombay Artilleryman, with a whole row of medals on his breast, a man who has seen repeated service in the defence of his country. And then again we have a Goorkha. These four representatives of the Indian Army, from the east, the south, the west and the north, must suffice to remind us of the part we play in the great defensive scheme of the Empire.

**25.**  
Hong Kong  
Regiment.

**26.**  
Malay States  
Guides.

**27.**  
West India  
Regiment.

There are many other local forces in our various lands. Here for instance are some Sikhs of the Hong Kong Regiment, and then we have a private of the Malay States Guides. Then, crossing half the world, from the east to the west, we come to a soldier of the West India Regiment, who serve both in the West Indies and in West Africa. This man we may note is a sergeant, and he wears the Victoria Cross for conspicuous courage. The Victoria Cross may be won either by an officer or a private, a soldier or a sailor, of any race throughout the world which serves in the Armies or the Navy of our Emperor.

**28.**  
West African  
Frontier Force.

**29.**  
Soldier of West  
African Frontier  
Force.

**30.**  
Mounted Infantry  
in the Kano-Sokoto  
Expedition, 1903.

There are other forces in West Africa besides the West Indian Regiment. Here, for instance, is the Lagos Battalion of the West African Frontier Force drawn up on the Parade Ground at Lagos. And here is a soldier of the Gambia Company of the same force. There are frequent small wars in the wilder parts of the West African Colonies and Protectorates, one of which, Nigeria, is half as large as India, though of course not so populous.

Here is a scene typical of the varied difficulties which have to be met by the very varied army of our King. Mounted Infantry of West African soldiers, commanded by white officers, have arrived at some wells, one of which is to be seen at the foot of the officer on the right. Unfortunately on this occasion a caravan with cattle had passed and drawn all the water, so that the column had to move on another 10 or 12 miles. Such are the difficulties to be encountered on the frontiers of the Empire. It is evident that local men will meet these difficulties most easily. Each race knows its own land best. Therefore, while the King has one Navy to defend the whole Empire, he has many Armies in its different parts. Both the Navy and the Armies are essential to one another. As long as the Navy keeps the sea, no great force can invade the British Empire, except on its two land frontiers. On the other hand, the Navy can only be free to command the sea if the King's subjects in each land are prepared to defend the Naval Bases should it be necessary.

There is one thing more, however, to be added. Battleships and cruisers can sail over all the ocean, except where covered with the northern and the southern ice. Three-quarters of the world, therefore, lies open to them. But battleships and cruisers cannot sail over the plains and the mountains. It is, hence often necessary, when the enemy has been defeated at sea, to land a British

**31.**  
Map of World  
showing position of

Army in order to achieve a given end. In this map each red dot, and you see

**important campaigns on land since 1660.** how many there are, marks the position of a land campaign fought by Britain in the last two centuries and a-half. The most striking fact is that no dot is placed in the British Isles. There were a few small battles fought in Britain during the first hundred years of this time, but no great campaigns in the sense that there were British campaigns on the mainlands of Europe, Asia, Africa and America. Had all the small wars been inserted, some parts of the continents would have been coloured red all over, for the dots would have joined. Now I think we may draw this conclusion from the map—that the British Navy has saved the British Isles from war on land, but that the British Army has often carried war into the country of its opponents. The Army is now stationed chiefly in India, because of the Indian Land Frontier in the north-west, and in the British Isles, but portions of it are also in Gibraltar, in Malta, in Egypt, in South Africa, and in other parts.

You will remember, of course, that when we visited London in the second of these Lectures, we came repeatedly to the names Trafalgar and Waterloo. Trafalgar was Britain's culminating victory on the ocean. It was fought by a fleet of battleships in order to free the ocean from Britain's enemies, and to allow her commerce to grow and her Colonies to have peace, although there was war on the continent of Europe. The battle of Waterloo was Britain's great victory on the land, fought in Europe by her Army and that of her allies ten years after Trafalgar. The Colonies had peace by reason of Trafalgar, but Waterloo brought the war to an end.

Let us look for a moment at the kind of Navy and Army which won these victories. Here is an old print of the Battle of Trafalgar, showing the sailing ships, and the many guns in their sides.

**32.**  
**Battle of Trafalgar, showing types of ships.**

**33.**  
**Death of Nelson, showing types of sailors.**

Here is the copy of a picture of the death of the great Admiral Nelson, who fell in the moment of victory at Trafalgar,



- 34.** Wellington at Waterloo. giving his life for his King. Here next is a picture of Wellington at the battle of Waterloo. The battles of those days were strangely different from the battles of our time, for rifles and guns had not then a precise aim. Here, for instance, are the close ranks of the British infantry, formed in square at Waterloo. That is Wellington, on horseback, speaking to them. Now look at the next picture. It is a battle-field in South Africa. The men do not even stand up; they lie apart from one another, each taking shelter behind some convenient obstacle. In this particular case the obstacles are ant-hills, which are frequent in the veldt of South Africa. Here are other scenes in the South African War. First we have South African Light Horse crossing a river; then a field battery fording a river. The uniforms of the men are not red, as we saw them at Waterloo, but "khaki," that they may be indistinguishable from the ground, and may not present a target for the hostile marksmen. Here are Royal Engineers building a bridge, with floating pontoons, in the case of a river which is too deep to be forded. And so we come to scenes in which greater and greater skill and science are needed and not courage alone. It is for this reason that preparation is needful, and that the Army must be trained and maintained during peace. We have, for instance, here an armoured train on the railway, bearing an electric light, wherewith in the night-time it searches the ground for opponents, and by throwing the beam of light on to the clouds, signals to friends
- 35.** Battle of Waterloo, British squares prepared to resist cavalry.
- 36.** South African Battle-field—soldiers taking cover on the Veldt.
- 37.** South African Light Horse crossing a River.
- 38.** A Field Battery fording a River.
- 39.** Royal Engineers building a Bridge.
- 40.** Night-Signalling from an Armoured Train.

in the distance. Here is the same train under attack.

**41.**

**Armoured Train  
under Fire.**

In the South African War more powerful guns were employed than ever before on land. Here is one borrowed from a great cruiser for the defence of Ladysmith.

**42.**

**Firing big Gun  
on Land.**

Here, in contrast, is a charge of cavalry. The chief function of cavalry is to obtain information, and to screen the movements

**43.**

**Cavalry  
charging at  
Laing's Nek.**

of infantry by repelling hostile cavalry. In fact, the action of cavalry is not very unlike that of cruisers at sea

There is a splendid side to war. There are occasionally magnificent scenes in it. There is always room for skill and courage. But it is none the less horrible. Some people have thought that it might be possible to carry on government without wars and to maintain no Navy or Army. Heavy taxation would be avoided and much suffering escaped. As yet, however, no one has shown how this can be accomplished. The map of the world which you had before you just now, sprinkled with red dots, each marking a long campaign and many battles, is evidence of what Britain has gone through in the defence of her Empire during the last 250 years. The world changes slowly, and there is at present no likelihood of wars ceasing. If that be so, the wisest and the most humane course is to be strong so that enemies may shrink from attack, and peace may be preserved. It is for this reason that membership of the British Empire is a high privilege.

Something, however, may be done to alleviate sufferings in war, and by agreement among the

**44.**

**Ambulance at  
Magersfontein.**

nations a red cross on a white flag raised on the battlefield secures the immediate neighbourhood from being aimed at intentionally, for it indicates that the wounded are collected there and that the surgeons are at work.

**45.**  
**Troops embarking to go Abroad.** Lastly, let us look for a few moments, as we did in the case of the Navy, at the daily life of the soldier in peace time. We have him here leaving England in a trooping steamer for foreign service.

**46.**  
**Shropshire Light Infantry on Parade.** Here is an infantry battalion on parade at home, and here another battalion with its camp in the background. Next we

**47.**  
**Northumberland Fusiliers on Parade.** have some men of the regiment called the Black Watch. They wear a Scottish uniform—once the garb of the High-

**48.**  
**Black Watch—Types of Men.** landers who dwell in those far northern regions of Britain where, as we saw in the third Lecture, are still to be found the great red stag and the golden eagle.

**49.**  
**Royal Artillery—Gun Drill.** This is a group of Artillery at gun drill. One fact more. The British Army is small among the armies of the world. The aim of Britain is not to attack any other power, but merely to defend her Empire. More-

over, Britain can perhaps afford to have a small army because she has a great fleet. Under ordinary circumstances she may count on preventing an enemy from invading most of her territories, in force at any rate, by the help of her fleet alone. This is the basis of the British Peace. The use to which Britain puts her strength is to carry the idea of justice, which her children learn at home, through all the lands whose happiness has, in the course of history, been entrusted to her.

**50.**  
**Holyrood Palace, with Troops on Parade.** The Army and the Navy, as everything else in the Empire, are headed by our Emperor-King. For one last moment let us return from the Empire to Britain itself. Here is one of the

**51.**  
**Trooping of the Colour.** King's Highland Regiments before his Scottish palace at Holyrood on his birthday. Here on the same occasion

**52.**  
Sailors Marching  
Past.—Birthday  
Review.

**53.**  
The Emperor-  
King in Naval  
Uniform.

**54.**  
The Flag of the  
British Empire.

are his Guards in London, and here his sailors at Portsmouth. For the sake of order, of justice, and of peace the subjects of the King are loyal, and recognize the duty of obedience. Here, finally, is our Emperor-King Edward, as Admiral of the British Fleet.

What is the chief lesson we should carry away from these Lectures? Is it not that the Empire can only be defended as a whole, and with the full co-operation of all its citizens? Surely then it is the duty of each of us to uphold the flag and to learn something of the defences of the Empire, and of the way it should be guarded and its rights and honour maintained before the world.









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